# News Articles Batch 1

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And you, what were you doing when you were 19? Michaël Ughetti, for his part, is not idle. A second-year student in the preparatory cycle at the Ecole Centrale d'Électronique (ECE), he developed Image-In, a software program designed for researchers in image processing and analysis. Very useful for video surveillance, it also applies to the medical field. The adventure began in 2004, when Frédéric Ravaut, head of computer science teaching at the ECE, introduced his students to his research work carried out at the LACSC, the laboratory for the analysis and control of complex systems at the electronics school. The goal: to create a platform that could analyze the face of an epileptic person (dilation of the eyes, tightening of the mouth and face, etc.) to provide specialists with new data useful for diagnosis and determining the appropriate treatment. Michaël quickly outpaced his classmates. He has been very interested in programming for three years now. He is moving quickly and, above all, has a clear understanding of the challenges of what he is looking for. "I embarked on this adventure because I am passionate about the challenges of programming," he explains. "You have to be as generic as possible, there are a lot of constraints. It is difficult but also very stimulating." Michael significantly developed the work when he created a platform for merging algorithms (a finite, sequential series of rules that are applied to a finite number of data, allowing classes of similar problems to be solved) developed by other students. When he was offered an internship at the CRIP5-SIP laboratory at the University of Paris-V at the beginning of the summer, he did not hesitate for a second, aware of the opportunity he was given. "Research is the basis of everything, we often tend to forget that," comments Michaël. He then compared his work to the needs of image processing researchers in order to best meet them. "After the internship, I continued to actively develop the software. Today, it is not finished but it is stable and, most importantly, usable." Image-In has two main functions: multi-source image acquisition (jpg photos, analog or digital video, etc.) and image processing using basic image processing algorithms. It also allows you to define and parallelize processing chains to compare their execution time and efficiency. Michaël recently put the software in open-source distribution on the site www.sourceforge.net. This way, everyone can access the program codes and use it for free. He is now waiting for user feedback so that he can improve his software. In the meantime, this astronomy enthusiast observes the stars whenever he has the leisure. www.ece.fr MD

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Tony Blair's new government will encourage British local authorities to equip themselves with free software represented by Linux and Red Hat. This is very bad news for Microsoft because free programs are the main competitors of its flagship Windows products. Two of their assets are that they are easily adaptable to users' needs and that they can be copied completely legally. The British Prime Minister is also determined to convince Europe to follow him in his crusade. With England taking over the presidency of the European Union in July, Tony Blair will use this platform to preach in favor of so-called open source software. According to the Financial Times, Tony Blair's government should soon announce the creation of an OpenSource Academy whose goal is precisely to encourage the use of free software in local authorities. In Great Britain, the public sector spent 18.3 billion euros in 2004 to equip itself with information technologies. And three quarters of the local authorities concerned intend to increase the use of free software. In France, Renaud Dutreil, Minister of Civil Service and State Reform, is also a fervent supporter of these products that compete with Microsoft's. On May 25, he will present a free software trophy in Soissons. On this occasion, the minister will point out that the financial stakes are high: the civil service is equipped with 900,000 computers and as many software licenses. The renewal of the 900,000 software licenses in the next three years will represent a total investment of 300 million euros. Several large European cities have already abandoned Microsoft for Linux. The Paris city hall wants to gradually equip its 18,000 computers with it. The city of Munich has also announced that it will convert to Linux. According to the IDC firm, the free software market in businesses should reach 35 billion dollars in three years. Its experts assure that Linux's annual growth should reach 35% compared to 15% for Windows, Microsoft's flagship software. The European Commission, which has engaged in a showdown with Microsoft, is also very active in this area. Last March, it launched a vast research program in IT services and software called "S3", carried out by a consortium of companies including Atos Origin, Engineering Ingegneria Informatica, Nokia, ObjectWeb, Siemens, Symbian Software, Software AG, Telecom Italia, Telefonica and Thales. One of the objectives is to promote European solutions that include free software. A welcome initiative as states and local authorities seek to better control their spending. Valérie Collet

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On the fringes of the neoliberal system where the consumer takes the place of the citizen, a new social economy is currently emerging in Quebec. These solidarity practices, more radical and less institutionalized than traditional non-profit organizations, are illustrated in different forms in small fair trade product businesses, in the community-supported agriculture network and even on the Internet. Thanks to the dynamism of fair trade product advocates, many Westerners have adopted consumer habits that are respectful of small producers in countries of the South. This solidarity is now expressed in various ways in exchanges between citizens of industrialized countries. "We looked at Quebec companies that have a different relationship with the economy and we believe that they can bring about a new form of solidarity," explains Jean-Marc Fontan, professor in the sociology department at the Université du Québec à Montréal and head of the Research Group on Emerging Solidarity Practices (GRPSE). As part of a North American cooperative, the Café Rico store in Montreal is in solidarity with countries in the South since it only offers fair trade coffee on its shelves. The Canadian and American stores also have a very strong bond with each other since they buy their coffee collectively and help each other manage the stores and open new ones. “Café Rico manages to sell fair trade coffee at very low prices while promoting this type of fair trade business. The cooperative associates consumer products with social values, as Laure Waridel does in her book Acheter, c'est vote. It's something new that goes against the grain of the market economy,” continues Mr. Fontan, who will present the first synthesis of the work of his group affiliated with the Centre de recherche sur les innovations sociales at the next Acfas conference. City dwellers and farmers in solidarity Established about 10 years ago by the Équiterre organization, community-supported agriculture (CSA) allows local producers to sell their organic crops to city dwellers without an intermediary. The farmer is paid at the beginning of the season and agrees to drop off baskets weekly at the agreed drop-off point. His customers only have to pick them up to discover the fruits of the week's harvest. "CSA reverses the logic of the usual economic system since the consumer pays for a product before taking possession of it. A relationship of trust is established between the farmer and the city dweller," believes student participant in GRPSE, Marco Silvestro. CSA is very engaging for the consumer who becomes a partner of the farm. Since he pays a fixed amount for his supply, he shares the risks of the farmer's job since he receives less product if the harvest is not abundant. Some participants even go out to the fields to give the producers a hand. "We are far from the supermarket where the customer finds himself in front of a mountain of tomatoes and crushes three to choose two," observes Mr. Fontan. Getting out of the economic system Much more informal, local exchange systems (SEL) are formed when residents of a neighbourhood get together to make a list of their know-how, the merchandise they have to offer and what they are looking for. With the help of a central body that keeps the accounts up to date, citizens can barter goods and services after negotiating their value. "Who said that an hour of work by a plumber is worth less than that of a doctor? SELs allow citizens to reassess the value of things and to operate according to the rules they establish," explains Mr. Fontan. Through this way of life based on mutual aid, friendship, conviviality and solidarity, the personal wealth of each person is valued and the exchange takes place outside the dehumanizing economic system. Sharing in the Internet Age Thanks to the advent of free software such as the Linux operating system and the Mozilla Firefox browser, solidarity is taking a global turn. These intangible assets cross national borders without difficulty and benefit free of charge all those who download them. The philosophy of free software is based on the idea of universal sharing of knowledge, even if many people are deprived of it because the level of technological development in their country has fallen too far behind. Free software creators operate outside the copyright system. "They want to share their work with everyone, without receiving money in return. We can see this as a new form of solidarity," says Mr. Fontan. The future of this new social economy Even if these new solidarity initiatives are very much a minority in the neoliberal economy, the GRPSE has noticed that some are stronger than others and that they could even succeed in counterbalancing the dominant system. "Free software has a very powerful reach and fair trade has already succeeded in influencing regular trade practices," notes Marco Silvestro. "These new ways of thinking and managing businesses will not eliminate profitability, but it will move from economic profitability to social profitability," says Mr. Fontan. The depressing poverty of many developing countries and the problems related to global warming are clear signs of the enormous social cost generated by economic activity as it is generally practiced today, believes Mr. Fontan. "Current experiments will serve everyone when we have no other choice but to massively turn to ecological and solidarity practices," he concludes. \*\*\* Solidarity economic practices, social integration and sustainable development: a typology of emerging examples in Quebec practice, a symposium presented on Tuesday, May 10 by Jean-Marc Fontan, Marco Silvestro, Yanick Noiseux and Jérôme Leblanc.

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A STRANGE marriage a month before the referendum on the treaty establishing a Constitution for Europe. On Tuesday, April 26, the French National Institute for Research in Computer Science and Automation (Inria) signed a memorandum of understanding with Microsoft for the creation of a joint research center in Orsay, which should employ 30 people by early 2006. Steve Ballmer, CEO of the world's number one software company, was in Paris for the occasion. The two partners want to develop upstream research on software security and the application of computer tools to different sciences. The next day, April 27, by coincidence, the new Airbus A380 successfully completed its first test flight in Toulouse. A striking contrast. On the one hand, the economic war between Europe and the United States on the civil aviation market, against a backdrop of criticism from Boeing regarding the aid received from Brussels by EADS. On the other hand, the commitment of a French public research institute alongside one of the most powerful American companies, a world leader in its field. Should we see a contradiction in this or, on the contrary, consider that this is just an ordinary alliance in the context of the globalization of basic research? There are several arguments for this hypothesis: Inria will benefit from the quality of the financial and human investment of the American giant, and this can only be stimulating for French computer scientists. Microsoft is only continuing its strategy of establishing laboratories worldwide, after having created one in England (Cambridge) in 1997, one in China (Beijing) in 1998 and one in India (Bangalore) in January 2005. Isn't justifying such an agreement in this way incredibly naive? Steve Ballmer's schedule lifts a corner of the veil. On the day the agreement with Inria was signed, he went to Brussels to meet the European Commissioner for Competition, Neelie Kroes. There, according to the International Herald Tribune, the meeting ended abruptly. Microsoft has been reluctant for a year to comply with European injunctions aimed at forcing it to offer in Europe a version of the Windows operating system that does not include the Windows Media player in order to preserve competition on this function. Similarly, the Redmond giant must deliver some of its source codes in order to facilitate communication between Windows computers and the software of certain servers. In 2004, the Commission fined Microsoft 497 million euros. Today, it is threatening the American company with a fine of 5 million dollars per day. In terms of research, Bill Gates' company remains mysterious. She created Microsoft Research in 1991, sixteen years after its founding in 1975. This entity now employs 700 people in six laboratories. Microsoft's research and development budget doubled between 1998 and 2003 to reach the staggering sum of 6.8 billion dollars. For comparison, in 2005, the French civil research budget (BCRD) amounted to 9.3 billion euros. TWO PHILOSOPHIES Microsoft and France therefore have research resources of the same order of magnitude. Inria's budget does not exceed 135 million euros for a workforce of 3,500 people, including 2,700 scientists (the institute directly pays only 1,800 people). In Orsay, Microsoft is said to be investing around 10 million dollars. What can a gesture mean that, on the scale of the company, barely goes beyond the symbolic stage? The answer may still be found in Brussels. Microsoft has been waging a merciless battle there for several years to obtain the legalization of software patents. The company is head-on opposed to the proponents of free computing, symbolized by the operating system that directly competes with Windows, Linux. The latter is distributed by Mandriva, a French company created in 1998 and which is experiencing strong growth. One of the rare chances of the European software industry rebounding lies precisely in the development of "free" computing. The State itself, which is currently experimenting with Linux in certain ministries, could contribute to its take-off by adopting it to escape the exorbitant cost of Microsoft licenses. Other European countries have preceded France. In such a context, the Inria project seems to ignore the clash between the two philosophies: that of Microsoft and that of "free" software, which relies on the collaborative development of royalty-free software. There is a fear that Microsoft will take advantage of the prestige of its financial power to draw Inria into an approach essentially focused on communication. Associated with a public laboratory, Bill Gates' firm finds itself, in a way, in the place. It will be more difficult for a ministry, an administration or a public company to opt for free software when Inria, created in 1967 on the initiative of General de Gaulle to guarantee national technological independence, will have become closely associated with Microsoft. The same is true with regard to Europe. The Redmond giant can hope to open new lobbying channels via the French government thanks to its official association with the public computer science research institute, whose interest in this alliance appears unclear. Unless the institute hopes to convert Microsoft to philanthropy.

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Reaction to Michel Dumais' column, published in Le Devoir on Monday, April 25, 2005 and entitled "Hide this report that I cannot see, The MILLE project offers an enticing solution for the world of education" On the sidelines of discussions surrounding the integration of information and communication technologies (ICT) in Quebec schools, it would be a mistake to relegate to oblivion the increasingly significant and vital contribution of free software and its derivatives. Enormous efforts are being made by many "committed" people who are committed to democratization and free access to computerized resources and tools for all. AQUOPS is still very timidly involved in this, but it remains nonetheless one of the privileged crossroads where artisans have the opportunity to exchange and present to stakeholders in the world of education the progress of their work, among other things during its annual conference. We firmly believe in sharing resources. Jacques Daignault, professor in the Department of Education Sciences at the Université du Québec à Rimouski-Campus de Lévis, former president of AQUOPS and member of its board of directors, stated it clearly in an article published on our site (www.aquops.qc.ca) in March explaining the theme of the last AQUOPS conference "ICT, a world to share" and the challenges of free software in a school context: "The expression "a world to share" questions another expression, very close, but contrary: "the world to share". And the world of information and communication technologies, the world of ICT, is today more than ever confronted with this debate, particularly in education. In the case of the first expression, that of the conference, the world of ICT is considered a common good to be preserved, enriched and bequeathed as a legacy or shared. In the second case, ICTs are more of a market to conquer and resources to exploit, the commercial appropriation of which - the issue of "sharing" - is likely to generate significant profits." The education sector has long been looking for tools that can help it integrate ICTs, freeing it from these technical constraints to focus on its true mission. The MILLE project offers real solutions to these problems. Computer systems are obsolete, the solution is probably in the use of terminals; software is rare or expensive, whether we download a virtual office full of resources and tools created for each user or offer them free and downloadable software, to use at school and at home, and thus counter piracy while spreading community educational values. It does not matter who will carry the torch, who will shout their affiliation the loudest, for a real debate to take place the loudest must set an example. The school does not have great demands, it has immense needs. It is literally starving and needs innovative solutions supported by creative and committed visionaries who will finally dare to put energy, money and human resources into projects that will have long-term benefits that are in line with the values of sharing and cooperation in the education community. AQUOPS fully supports the revolution proposed by the MILLE project as well as all organizations working towards the same goal: to offer all computer users an intelligent, simple and effective solution for integrating ICT! Claude Raymond: President of the Association québécoise des utilisateurs de l'ordinateur au primaire-secondaire (AQUOPS)

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The Society for Arts and Technology (SAT) is experiencing accelerated growth. The Montreal organization must meet an increased demand for multimedia immersion concepts, which very few companies are capable of generating. After taking over the building on Saint-Laurent Boulevard facing the Monument-National, the management team plans to occupy it entirely, right up to the roof, where they plan to deploy a huge sphere inside which people will be able to experience multimedia immersion. We will soon be traveling in the Satosphere! The time has come, says in essence a detailed report from the SAT released yesterday, as an introduction to a vast action plan. And its main conclusions are as follows: Broadband and very high-speed connectivity will soon usher in an age of creativity and an over-multiplication of collaborative exchanges. In 10 years, a majority of users will benefit from a quality of service and Internet access that is far superior to the current state. Content will be digitized, formatted, indexed and shared through a variety of wired and wireless networks. Collaborative work and exchange between individuals will become the rule. Peer-to-peer (P2P) downloading, copying and sharing of content will be widespread common practices. The boundaries between work, leisure and entertainment time will have become considerably blurred. Premier hub urbain Having thus prophesied, the SAT team is ready to put its research initiatives into practice. Among other things, it will make possible applications related to telepresence, i.e. multimedia interaction simultaneously connecting consumers and creators of content linked by the Internet. SAT has also become a leader in audiovisual immersion, which leads the viewer to envelop himself in content projected on different surfaces. The SAT thus aims to become Montreal's first urban hub "The heart of the urban hub concept is to offer an open and scalable platform that brings together cutting-edge software (essentially open source), digital technologies and resources that enable the creation, dissemination and distribution of digital cultural content. This platform can be used in an environment designed around collaborative networks that are connected to the world," explains René Barsalo, Director of the "strategy and development" sector at the Society for Arts and Technology. Barsalo is also the author of the visionary report The Time Has Come, produced in conjunction with Jon Husband. "We are preparing to become a central infrastructure for digital creation and its dissemination," added René Barsalo. "An open and neutral space, where our knowledge can be transmitted, particularly to university researchers. There are already two generations of Internet users who no longer see the consumption and creation of digital content in the same way as the previous ones. Whether we like it or not, these generations are ready to experience culture differently; we cannot slow down their momentum." On tour The SAT thus intends to become a major space for creation, training and dissemination. New computer applications will be developed there, artists will be in residence, and each part of the building will benefit from the best Internet connections, i.e. optical fiber. And on the roof of the SAT from the summer of 2006, we will see the Satosphère swelling, where we will experience new types of multimedia projections. "We designed it so that it could be deployed on an arena rink. When fall comes, the Satosphère will be able to go on tour," Barsalo emphasizes. This justifies a thorough restructuring of the SAT and its management team chaired by Monique Savoie, the organization's founder. Louis Bellemare has become its general director, ready to manage this accelerated growth. Monique Savoie, René Barsalo and Louis Bellemare are joined by André Picard in content marketing, Richard Langevin in training, Joseph Lefebvre in the "creation and residencies" section, Stéphane Bergeron in event production, Pierre Chiasson in finance, and Hugues Monfroy in communications. "We have brought together renowned professionals to meet the demands of our potential clients, professionals with whom young creative artists will collaborate. For example, some Swedes have ordered a concept from us to be projected in 360 degrees. Now we have to deliver the goods," explains Louis Bellemare, who sees the SAT's order book filling up. Alain.brunet@lapresse.ca

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Free software enthusiasts will be jealous, knowing that at its heart beats a 100% free technology wrapped in a proprietary interface, yes, but so intuitive. Likewise, Uncle Billoux aficionados will be able to drool with envy when contemplating this new little gem signed by the very Holy Father Steve who is thus outpacing Microsoft. Its release does not fail to strongly underline this long year that they will have to wait before the marketing of the next version of Windows, Longhorn. Yes, Tiger is available, and it undoubtedly consecrates the technological advance of Apple. What could be more pleasant to underline one's latest column in Le Devoir, a den of Apple disciples, than to have to deliver one's comments on Tiger, the new version of Apple's operating system. Launched with little fanfare, the big one being lost who knows where, Tiger is without a doubt the most powerful operating system, but also the most intuitive ever introduced by Apple. Mom, mom, your son is having a great time with the Tiger, and don't hesitate to update it, you'll thank me for including my known and unknown descendants in your will. "Not sure" First surprise for Macintosh users with a few gray hairs under their mouse: the new Mac OS is only sold in DVD format. Apple owners can only read traditional CD-ROMs, so Apple has set up an exchange program that requires you to buy the DVD and mail a coupon. As the ad says, "not sure!". In terms of looks, Apple is taking the opportunity to make some small cosmetic changes. The new icons, you either like them or you don't, depending on your point of view. Personally, "not sure". But come on, change is always annoying. It's in use that we'll see if everything will pass the test successfully. Under the hood, however, it's still that big, very free-source UNIX engine that rumbles and powers the Apple-branded machines. It's beautiful, it's solid, it's stable, and we understand very well why Apple decided to play open source in its own way by incorporating the best of free technologies into its operating system. Why reinvent the wheel and take the risk of breaking your neck, when a community has already successfully cleared a large part of the way? Obviously, we can try to reinvent this wheel, with all the risks that accompany this choice and it gives... No, not today, no jab at you know who, not in this last column. Toys, owls... And once installed, what does the Tiger give? Let's face it, it's full of toys owls stones knees lice all as interesting as each other. Spotlight is the new search technology that allows you to find any file on your hard drive in the time of a butterfly's wings. Files, emails, contacts, but also images, movies, information contained in calendars and applications. Spotlight finds everything quickly and more than displays all the metadata contained in the files. Spotlight is also the reason why you will probably never see a version of Copernic Desktop Search for the Mac. Another toy, the Dashboard, an area accessible with a keyboard stroke, integrates very sophisticated tiny applications, the "widgets", which are displayed according to your needs or according to what you have ordered them to do. Cute as anything, but in my opinion, totally useless and we will quickly get tired of it, in the same way that I quickly got tired of an application similar to it, Konfabulator. A detail that will only interest a small part of users, but which, in my opinion, is of great importance, Tiger offers Voice Over and Universal Access, two technologies intended to help all those who have difficulty using a computer. If the Dashbord technology leaves me cold, the same is not true for Automator, a tool for automating repetitive tasks. To explain Apple, this technology integrates a library of hundreds of actions. Each action is designed to perform a specific task, for example finding linked images in a web page, renaming a group of files or creating a new event in an iCal calendar. Let's be objective for a few moments, Apple is not inventing anything with Automator, such tools have existed for a long time in the Windows world. But we are very happy to see Automator embedded in the Mac OS. Very. Automate If the previous technologies are rather discreet, it is not the same for iChatAV, Mail version 2.0 and Safari RSS. Apple's videoconferencing application has undergone a complete upgrade which now allows you to hold conversations with several people... as long as you have a powerful enough Mac, because iChatAV is a bit greedy in terms of machine resources. Safari RSS, the new version of the browser that comes with Mac OS, not only offers an ultra-fast tool for browsing the Web, but it now displays RSS feeds, the news feeds that the vast majority of blogs and many media sites like Le Devoir, Cyberpresse or Radio-Canada offer to their readers. A small detail for parents concerned about the browsing habits of their youngest children, Safari RSS integrates a parental control mechanism. Personally, I believe that a good conversation with your children is much more effective than all the browsing control gadgets, but everyone is free to exercise their values. The Eudora email client has always stood out from other applications by its extreme speed in finding a lost email among thousands, nothing to do with the sluggish search mechanism of Outlook for example. However, we can now say that Eudora will no longer be the only one to offer lightning search. With Mail 2.0, searching through tens of thousands of emails is almost instantaneous. Mail has also refined its methods for detecting spam, that scourge of modern times. Invisible to the eye We could also tell you about technologies invisible to the eye, such as Core Image, which makes the most of the latest graphics cards, but only installing Tiger on a recent machine will allow you to judge. We noticed an improvement on our computer. Sound maniacs already know that the other technology, Core Audio, greatly facilitates their life in using audio applications. According to Apple, "Core Audio lays the foundation for the next generation of audio and music applications that will be developed by imaginative developers." In short, if we didn't hold back, we would have pages and pages to tell you about the new features of Tiger. But we contain ourselves, and swallow the zen pill. In reality, is it really useful to describe one by one the features of this new operating system? No. What you need to understand in this gibberish that will leave some people skeptical is that Apple's service offering is currently the best on the market. The Mac OS/Apple computer combination is the one that will provide the best experience to anyone who wants to buy a new computer. Viruses or spyware? I don't know or almost. Data exchange with the PC or Linux world? The Mac speaks all languages, including Microsoft's. Ask yourself why "ultrageeks" and experienced users have adopted the Mac in recent years. Why? To ask the question is to answer it. \*\*\* Six years It is with a pang in my heart that I wrote this last column for Le Devoir, my newspaper, a great newspaper. After six years of cheering you up, informing you and trying to make you think about the issues of technology, it is time to turn the page. Another will take my place next week. However, I will continue to write in my notebook. I invite you to come visit me if you feel like it. It is thanks to you, my dear readers, that I have had so much pleasure in living these six years by meeting you every Monday. I would therefore like to very humbly thank you for your loyalty, as I would like to thank the artisans of Le Devoir for having trusted me and for having always given me, without exception, carte blanche to write my thoughts. Thank you to Michel Bélair for having invited me first, to Diane Précourt, for the laughs, and to Benoît Munger for having launched me on new paths. Le Devoir is my newspaper, and I hope it will be the same for you. Thank you again. Michel Dumais

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The beautiful city of Quebec will host two major conferences in May. On May 16 and 17, the Conference on Free Software and Public Administrations (CLLAP) will bring together speakers from here and elsewhere to provide a clear picture of the initiatives and use of free software within public organizations in Quebec and elsewhere in the world. The conference will discuss legal issues, management, technological challenges and solutions implemented and, as you can imagine, we will be there. CEFRIO is organizing an international conference on online governance from May 24 to 26 to allow public administration executives and professionals, political leaders and business leaders, in Quebec and elsewhere, to learn more about networked public administration serving citizens. Like the CLLAP, this conference will bring together high-quality speakers. We will try to be there.

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Guess What? GAME. Yet another hijacking of the Google search engine, Guess-The-Google reverses the logic of image search, posing the following riddle: what is the keyword that allows you to obtain the twenty images that appear on the screen? Twenty seconds to find their common point and the opportunity to revise your English vocabulary. Google seems to be the hobby horse of the author, Grant Robinson, already responsible for Montage-A-Google, an application that uses the image engine to generate a visual collage from a keyword. http://grant.robinson.name/projects/guess-the-google Vide-Grenier Troc. Second edition, Sunday, of Troc'Matic, a digital garage sale held in Belleville. "Install'linux-parties", swaps of computer components and equipment, free software, use of wi-fi. Troc'Matic is a citizen initiative, organized by Parisian associations to facilitate access to digital technology for all through the exchange of equipment and knowledge. May 1st from 10 a.m. to 6 p.m., bd de la Villette, Mo Belleville or Colonel-Fabien http://trocmatic.crao.net

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After a (too) long wait, the leaders of the MILLE project have finally made public the study by Professor Micheal Wybo, guest professor at HEC, on the evaluation of the virtual office of the MILLE project, a completely free solution intended for the world of education. The killer question that few people dare to ask openly: in the long term, how will the GRICS company be able to justify the development of its service offers in proprietary software, development paid for with public funds, in the face of the conclusions of such a study? It is difficult to convince the bigwigs of the education sector of the advantages of free software. The credibility of the project, acquisition and operating costs, and above all, the quasi-control of the GRICS company and its proprietary software service offer in school boards are all reasons that prevent the proselytizers of free software from being taken seriously by decision-makers. Totally free Aware of these problems, the managers of the MILLE project entrusted a professor from HEC, Micheal Wybo, with the task of evaluating the virtual office of the MILLE project, a 100% free portal, in relation to a "proprietary scenario", namely the Édu-Groupe portal of the GRICS company and its proprietary Microsoft/MailSite architecture. In short, on the one hand, a real 100% free software solution, adapted to the Quebec reality, and on the other, a combination of proprietary tools, just as closely aligned with the needs of educational institutions. The study itself focuses on the following evaluation points: acquisition costs, operating costs, impacts on technical staff and development approach following the free model. The goal: to compare the real costs for similar solutions. How serious! Exactly what our managers, and by extension, the Minister of Education, Jean-Marc Fournier, expect. Two Scenarios In order to properly assess the forces involved and conduct a rigorous analysis, the study leaders agreed to establish common characteristics for both scenarios: - Web server and application server, each on its own computer; - Database server, e-mail server and authentication server, each on its own computer; - Dual-processor database server; - Daily cost of a consultant set at $500; - Daily cost of a school board employee set at $280; - Training costs for teacher users for the Édu-groupe and MILLE portals and operating costs for Microsoft and Linux servers are considered equivalent and are not included in the analyses; - 100% Microsoft initial infrastructure. Acquisition Costs Many people wrongly believe that acquisition costs only include the cost of licenses. However, this is not the case. As Professor Wybo states in his study, acquisition costs include not only the amounts paid for licenses, but also the costs of migrating the system and data. According to the study, "these costs are not associated with a particular technology, but come from the fact of moving to a technology for which the organization has no experience. Migration costs are a function of the initial infrastructure. An organization that wants to replace its UNIX infrastructure with a Microsoft infrastructure will have migration costs comparable to an organization that wants to migrate its Microsoft infrastructure to an open source infrastructure." This is why, with the tight budgets available to school boards, acquisition costs can represent a significant barrier to the implementation of innovative technologies in educational institutions. According to the authors of the study, "an open source solution, with acquisition costs less than half the acquisition costs of the proprietary solution, makes school portal technology more accessible to school boards and their clienteles." More than half? Indeed, in his conclusion, Professor Wybo estimates that "the acquisition costs of the MILLE solution represent savings of 59% to 75% compared to the acquisition costs of a similar proprietary solution." This means that the barriers to entry are much lower for the MILLE solution and the portal functionalities offered by the Virtual Office are easier for school boards to acquire. Operating costs In his study, Professor Wybo uses this equation to estimate the operating costs of each of the proposed solutions: these total costs represent the sum of the annual costs of maintaining the infrastructure plus the annual costs of maintaining the application. Fortunately, Professor Wybo avoids falling into the trap that some apostles of free software present as gospel, namely that the operating costs of free software solutions are almost non-existent. This is totally false, and any responsible organization must take into consideration the costs related to fixing bugs and distributing corrections. For Wybo, "it is also necessary to develop the product and define, test and release new versions" and therefore, to take these costs accordingly. Obviously, we cannot neglect the contribution that a community makes to the development of free software as well as to the resolution of bugs. In short, for a school board with approximately 10,000 students, the adoption of a solution using free technologies generates an estimated saving of 58% of the total costs compared to the proprietary solution. As for school boards with 30,000 students or more, which plan to invest 12 employee-days over a period of five years, the savings can reach the impressive number of 78% of the total costs. "If this same school board invested 25 employee-days in years 2 to 5, the estimated savings would be in the order of 62% for the total costs." It is understandable that, for school boards, adopting a free solution will have the advantage of making a tool available at a lower cost to education professionals to enable them to better serve students and teachers. But wait, there is more... Reading the conclusions of Professor Wybo's report, which report real savings in the appropriation of free software compared to proprietary software, one would therefore be led to believe that those responsible for the education sector will have no choice but to consider free solutions in future calls for tenders. Ignoring free software would be, in my opinion, totally irresponsible, knowing that public funds cannot meet the needs of the education sector. I would even dare to say that there are already 103 million good reasons to favorably consider free software. Especially since the virtual office of the MILLE project has received its moral endorsement from the largest publisher of proprietary software in the world, namely Microsoft. Indeed, at the annual ADIGECS (Association of Directors General of School Boards) conference to be held from May 18 to 21, the company founded by Bill Gates intends to hold a conference entitled: Microsoft and the Mille Project. According to the event's program, this conference aims to inform directors general of Microsoft's various initiatives in the school board network as well as its position on the Mille project and free software. However, we can already give you a brief summary: Uncle Bill hates free software to the point of confessing it. But the simple fact that Microsoft is holding a conference whose sole subject is the virtual office of the MILLE project speaks volumes about this potential threat, right? This conference can only give an aura of credibility to the MILLE project. But wait, because there is even more. Worse, I dare say. Imagine that the managers of the MILLE project had to fight to be able to present the virtual office to the general managers at the ADIGECS congress, just like the GRICS and Microsoft. It was a lost cause, and after much pressure, the only time slot they were granted was during a lunch. Pathetic, right? And the societal impacts? As you know, this column always examines phenomena related to technologies from three perspectives: economic, technological, but also societal. In their conclusion, the authors of the study devote an entire paragraph to the societal impact that the adoption of the MILLE project by our school boards will have. Professor Wybo says, "in addition to the financial aspects, a free software solution also has the benefit of facilitating the exchange of ideas among a very large community of users, which represents a diversity and wealth of ideas, points of view and experiences on the use of a portal application in primary and secondary education. Compared to a development based on the experience of a restricted group of users, whose investments in innovations are also restricted by the revenues generated by this group, it is very likely that more innovative features that are more aligned with the needs of education professionals will appear more easily in the free software solution. In short, reading the conclusions of the report, one wonders what more can be said to convince our decision-makers of the advantages of free software. The solutions proposed by the MILLE project are less expensive to acquire and operate. The technological solutions developed by the MILLE project team are just as efficient as proprietary software. The solutions that the MILLE project makes available to the world of education are innovative and meet the needs of students and teachers. Ministers Fournier, Audet and Jérôme-Forget, here is an opportunity to "shine among the best" with an innovative technology, developed, it must be said, with public funds. Here is a solution that directly addresses the problem of underfunding of the school network. What more can we tell you to convince you? We even wonder if there is any coherence in your actions. On the one hand, we have a free solution, funded with public funds, and which fully meets the needs of the world of education. On the other hand, we have proprietary solutions, those of GRICS, also funded with public funds, but which are much more expensive for the Quebec government. And we ask the question again: in the long term, how can GRICS justify the development of its service offerings in proprietary software, funded with public funds, given the conclusions of the Wybo report? mdumais@ledevoir.com

## ###ARTICLE\_START### ID:11

Specializing in security and scientific computing environments, the joint research center project between Microsoft and Inria (1), in Ile-de-France, worries some researchers. What do you think of the Inria-Microsoft research center project? At first glance, we could be pleased. French research lacks resources and a large private company is providing funding of around 10 million euros. Except that it is a monopolistic company in a locked market, all against the backdrop of an intense political battle over the introduction of software patents in Europe. What is Microsoft's interest in this affair? Through this collaboration, Microsoft hopes to improve a very negative image in research, gain support from politicians in anticipation of the debate in the European Parliament on software patents and, above all, take advantage of it to strengthen its patent portfolio by mobilizing public resources! On the Microsoft website, it is specified that the money invested in financing theses cannot be used to develop software that includes any so-called "free" component. In other words, the results of this research cannot be freely distributed under any circumstances. This will result in strengthening Microsoft's monopoly in a sector where they fear no competitor, with the exception of free software, which radically disrupts their model. This type of agreement that is finalized at the highest level, when Jacques Chirac receives Bill Gates at the Elysée, for example, is the result of a shopkeeper's calculation by our leaders. (1) National Institute for Research in Computer Science and Automation, a public research organization.

## ###ARTICLE\_START### ID:12

Through this collaboration, Microsoft hopes to improve a very negative image in research, to gain support from politicians in anticipation of the debate in the European Parliament on software patents and, above all, to take advantage of it to strengthen its patent portfolio by mobilizing public resources! On the Microsoft website, it is specified that the money invested in financing theses cannot be used to develop software that includes any so-called "free" component. In other words, the results of this research cannot be freely distributed under any circumstances. This will result in strengthening Microsoft's monopoly in a sector where they fear no competitor, with the exception of free software, which radically changes their model. This type of agreement that is finalized at the highest level, when Jacques Chirac receives Bill Gates at the Elysée, for example, is the result of a shopkeeper's calculation by our leaders. (1) National Institute for Research in Computer Science and Automation, a public research organization.

## ###ARTICLE\_START### ID:13

Daniel Cohen's analysis, to cover the range of questions that the Internet poses to authors' rights, nevertheless ignores a remarkable phenomenon that the global network has brought to light: free licenses (Le Monde, March 29). Whether they are called Creative Commons or Artlibre for the best known, these licenses allow artists (musicians, writers, photographers, videographers, etc.) to protect their works while modulating the usage rights that they choose to authorize: the authorship of the work is guaranteed, and its use (distribution, modification, private or commercial use) and its exchange can be modulated at the author's discretion. These licenses have been named copyleft, an ironic reference to copyright. They are modeled on the famous GNU/Linux, a license for distributing free software that allows all Internet users to modify, improve, and distribute software with complete freedom and efficiency. (...) Applied to artistic works, these licenses are perfectly adapted to the new conditions of circulation of information that the Web constitutes, and especially to its initial philosophy: free and decentralized access to knowledge and information, the exchange and sharing of knowledge in an open network. The flexibility of these licenses allows artists to share their works under the conditions that they themselves set. (...). Artists therefore have a contractualized alternative to the hitherto unavoidable Sacem. And they use it. Ten million creations protected by this license have already been distributed worldwide. Steve Coleman, for example, the famous jazz saxophonist, offers almost his entire discography on his site for free downloading. Individual or collective, these initiatives demonstrate that the libertarian and community philosophy of the first Internet users is still alive. (...) Art can still escape consensual ultraliberalism and the jaws of its established relays. (...) Since 2000, Catholicism has become the leading religion in Germany, to the detriment of the evangelical churches. Jacques Thépot uses this as an argument to defend, in particular, the authoritarian leadership of the late pope, the tension over priestly celibacy and the proclamation of a collective morality with universal scope, decreed from the magisterium: the mode of governance of John Paul II would have limited the damage better than that of the Protestant churches (readers' letters, April 14, 2005). This is to forget a well-known sociological trend: minority groups protect and defend themselves by activating everything that can support the sharing of the same values and the same vision of the world. It is therefore not surprising that the German Catholic Church has resisted the decline in religious practice better. But we can consider the argument from another point of view: the major feature of the relationship to religions in Western societies is the deinstitutionalization of religious feeling and the rejection of the regulation of beliefs by clerical authorities of any kind. Consequently, the German trend observed among the Evangelical Churches simply reflects the vanguard of a general movement, a vanguard favored by the nature of the dogma and governance in these Churches. Wanting to authoritatively erect walls to separate a priori the true from the false, good from evil, just from unjust is a project from another historical era, as evidenced by what happened to the Berlin Wall. Vatican II tried to open the doors and windows of Catholicism to encourage sharing and debate, which is probably what young people appreciated when John Paul II came to meet them. Some are surprised that the social morality of his encyclicals, in some respects worthy of the avant-garde theses of the anti-globalization movement, has not been heard. The rejection has the same root: no one can stand the argument of authority, the word spoken ex cathedra, any more. If the late pope had recognized, upstream of human rights, the culture of the Enlightenment that carries them, he would then have recognized that the advent of the free individual calls for interactive communication during which no partner has the last word: in exchange and debate, the partners build together a path and a road, knowing that tomorrow their respective roads may separate for other paths with other partners.

## ###ARTICLE\_START### ID:14

It seems that last week's column on free software particularly spoke to you, if I am to believe the number of comments received. Many of you responded to this question: "Do you feel a moral responsibility to support free software in any way?" Exceptionally, given the very high quality of your contributions, this column will give a very large place to your comments and will return to its usual programming next week. Without too many surprises, the vast majority of comments came from people already using free software. While most of the respondents are just simple users, others come from the business world, like consultant Fabian Rodriguez who declares that he strongly and passionately supports free software in the context of his work. "For a few months now, as a full-time consultant proposing free software for most of my mandates, I have adopted a few habits on this subject. For my part, my latest contributions have been: - Mozilla Foundation (purchase of about $300 US worth of promotional material as well as donations of $50 per day of consultation devoted to their products); - SourceForge.net (level 1 donor); PDFCreator - about $100 to encourage the resolution of certain bugs, and $50 for each client who asked me for it - Wordpress - $50 following this article (thanks Michel). I also noticed that only 179 donations had been recorded by Paypal (the payment method chosen by Wordpress); - Ubuntu.com / Debian.org - $50 per week of consultation devoted to one or the other of these Linux distributions For the moment, Mozilla is the main beneficiary of my donations, because it is the software that makes me work the most. In addition, I encourage my clients to make donations and to become members of FACIL (www.facil.qc.ca). That's less easy. It's a bit like eating organic/fair trade/vegetarian... it's a good habit." Giving time For his part, Erwan, a user with little money if we are to believe what he says, compensates by giving time to the free software community. "I use a lot of free software. The most used, for my part, is Firefox and its companion Thunderbird. I don't really have a lot of money, so I give my time on the French-speaking help forum and I translate extensions (for the Firefox browser) when I have time. Your post, and more specifically the title and the last part, is the exact reflection of what I think: a donation for the fortunate, and a little time for others; everyone has an experience and can share it. Free software has no future without a community." The Firefox browser also seems to be a common point in many thoughts on the subject of free software. The ever-increasing popularity of this competitor to Internet Explorer has prompted many users, such as Richard Gagné, to realize that free software could be a valid alternative to proprietary software. "I started using Firefox in December 2004. I was looking for a way to get rid of the famous unsolicited advertising pop-ups. I can tell you that I was not disappointed and that I only use Internet Explorer for sites that require it. I wondered if I should contribute financially to the development of these applications that are so superior to Microsoft products. So I was pleased to read your article in Le Devoir, an article that I found particularly enlightening on this whole issue. As a contribution, I decided to purchase several items from the Mozilla store." A hindrance Some, like Pierre Lesage, would like to contribute financially to encouraging free software communities. However, online payment seems to be a hindrance to this encouragement. "I have asked myself the same question as you on several occasions, but I must admit that, until now, I am hesitant to submit contributions. I will submit to you a few elements that still fuel my reflection, such as the difficulty in paying in Canadian dollars in many cases. Even on sites with an excellent reputation like Mozilla, where they seem willing to accept credit cards or Paypal, the procedure is not clear. It seems that we are directed to Paypal, which I do not want to use. I feel uncomfortable going through a procedure where I have difficulty imagining in advance where it will take me and how it will do so; in short, I am more inclined to the idea of contributing to the development of free software (OpenOffice, Mozilla) than in the case of certain free software where I have often had the feeling that the amount of the suggested contribution was high." To this, I would allow myself to respond to Mr. Lesage that there is no obligation to give a large amount. The good thing about free software is that everyone is free to estimate the value they give to a product. If you think that the value you give to a free office suite like OpenOffice is $50, and I think that its value is $20, we are both right. Educate I particularly liked the comment by Martin Boisjoly who, in addition to contributing financially to certain free codesource projects like Firefox and Edulinux, believes that by educating his friends about free software, his contribution will have more impact in the long term. "Being a former "PC installer-configurator" (read MS Windows), I offered my sister for Christmas a used PC (PII-400) brand new configured with Edulinux 2004, Firefox, small speakers, Internet access, etc. She didn't notice anything and she reminds me, on occasion, how happy she is since she started using this machine! I'm already preparing another one for one of my brothers-in-law, with Ubuntu (Debian)." Some Internet users, like Pierre Lachance, chose to react on their Web notebook, and not by email or by a comment on my blog. Mr. Lachance questions the very notion of responsibility that I raised in my column. "The word responsibility seems heavy to me, because I have never had a fever to make a donation to a scientist who was kind enough to deliver his discoveries to humanity. I am exaggerating, but only slightly because the world of free software is not only the final product that is software (like Firefox or others), but free, available, usable, modifiable and redistributable documentation, a community that helps in forums/mailing lists/Web sites and a philosophy very different from that conveyed by proprietary software. "Freedom, that's what I respect. The freedom to contribute by documenting (which I do thanks, among others, to LinuxÉduQuébec). The freedom to help users by email/list/forum. The freedom to modify/redistribute an application like WikiNiMST. The freedom to register with the MandrakeClub or to make a donation to Wikipedia. But I don't consider these actions as a responsibility, because I am not obliged to, that's the difference with the world of proprietary software. "Yes, for me free software is more than an executable (tool) on my computer. It is knowledge. And for me knowledge belongs to everyone. Yes, I contribute in different ways to free software. Yes, I use free software. And no, it's not because it is free." The developer's point of view In conclusion, I would be remiss if I did not mention the thoughts of Berthélémy Dagenais, a student in computer science and software engineering at UQAM, himself a designer of free software, who cannot help but think about these questions from the developer's perspective. According to Mr. Dagenais, it seems obvious that we are witnessing a questioning of the profession of software developer: "If we can no longer earn a living like this because we can no longer obtain fair compensation for the work we have done, the profession will quickly become the preserve of the richest or those working for large companies. The free software community will soon have to ask itself certain questions, otherwise it will contribute to its own decline." Still according to Mr. Dagenais, there are several ways to reduce your tastes and increase your income with free software. "Sites like SourceForge.net offer a multitude of free services (Web hosting, compilation farm, source control) for free software projects. In addition, it is always possible as mentioned in the article to subscribe to a donation program or to sell more detailed documentation or a commercial version of the product. Advertising remains in my experience the most widespread way to obtain a small but sustainable income for a free software project. "One can answer that there will always be a market for specialized or more complex (proprietary) applications, but if the free software movement has succeeded in giving birth to an operating system (Linux), then it seems that this movement is capable of anything, which is quite extraordinary in itself. (...) I use free software or free components every day that I incorporate into my own software and I consider myself lucky to live in such an era. mdumais@ledevoir.com

## ###ARTICLE\_START### ID:15

The "software patent" bill will be submitted to the European Parliament today. To date, 30,000 patents have been granted by the European Patent Office for computer-implemented inventions. For Georg Greve, president of the FreeSoftwareFoundation in Europe, the patent risks strengthening monopolies. LE FIGARO ECONOMY. Microsoft claims to be in compliance with European competition rules. What is your opinion? This is false. For Microsoft, the value of its software lies in its proprietary, closed and secret aspect. It is a way of making customers captive. An example: the only way to access a European government website, which is a priori open to all, is for the Internet user to use Microsoft's browser, Internet Explorer, and a Windows operating system. This is contrary to the values of independence and freedom that we defend. Our approach is to promote software that is free to access, copy and hold rights. It seems to us, from an economic point of view, that companies and consumers should have a choice and not be tied to a single company. Microsoft is resisting the Commission's sanctions... This is classic. Microsoft has always been slow to apply corrective measures. The European Commission should increase its fines! Regarding the sanctions around "interoperability", which allows the software of a server to communicate with another computer, Microsoft has excluded from the scope of application free software such as GNU and Linux. We have written to Brussels about this. We are not asking for access to the source code, but to know how the communication protocol works. What is the status of the debate on the European patent for software? The law will be examined, in second reading, by the European Parliament before the summer holidays. The precise date is not yet known. MEPs will be presented with the text amended by the European Commission on 7 April. Why is an association of major European technology manufacturers, which includes companies such as Nokia, Siemens and Alcatel, in favour of this patent, while small publishers, in general, are opposed to it? The patent, if adopted, will strengthen monopolies. This is not a solution because software is already protected by copyright in Europe. If the patent were adopted for software, the concepts could be protected. However, an algorithm is like a mathematical formula that cannot be protected by a patent. The large groups are in favour of it because they have asked their lawyers specialising in patent law!

## ###ARTICLE\_START### ID:16

What is our responsibility as a user of free software? Are we required to support in any way the main developer or the community of a free software that we have downloaded and that we use daily? I agree, the question is somewhat surprising given that, since forever, we have been telling you on these pages that free software is free. However, for a few days, I have not stopped asking myself this question. The blunder committed by Matt Mullenweg, the designer of the WordPress platform, is without a doubt the great trigger for this reflection to which I invite you. Last week, the managers of the Google search engine removed from the home page of the WordPress.org site its high score of 8/10 in the "Pagerank" index. "Pagerank" is one of the standards used by Google in its algorithm to classify websites by importance. The principle is quite simple: the more your site is hyperlinked to other sites, and the more other sites link to you, the more Google concludes that your site is important and popular. Fortunately, other elements of Google's algorithm can temper the "Pagerank" index. In fact, according to Google, "over 100 factors automatically determine the order in which results are displayed." Hidden Links So why do so many people attach so much importance to the Pagerank index? In this case, the high "Pagerank" of the site Wordpress.org allowed it to appear in the "top 1" of many searches carried out on Google. However, to ensure that the search results are as democratic as possible, Google prohibits websites from using hidden links that have no relation to the mission of the site. In the jargon of SEO specialists, this practice is called "spamming" the search engines. However, last week, the website Waxy.org revealed that Wordpress.org was almost confidentially hosting on its site more than 120,000 articles on subjects as exciting as drugs that supposedly restore the vigor of the male member, obtaining easy credit and many other subjects associated with spam. The main developer of Wordpress admitted to having made a financial agreement with an advertising placement firm in order to benefit from revenue. As for the advertising firm, the avowed goal was to promote its advertisers' products thanks to the important Pagerank of WordPress. Rapid sanction Once these facts were known, the sanction from Google was not long in coming: loss for Wordpress.org of its Pagerank index and a lesser popularity in the search results. Fortunately for WordPress, after the incriminating articles were removed, Google gave it back its index. End of the psychodrama that mainly shook the blogosphere. For Matt Mullenweg, however, will this loss of income prevent him from devoting himself as much as he would like to developing his product? In all this, it is safe to say that the main developer of Wordpress, Matt Mullenweg, has sinned by stupidity, a conclusion supported by one of the developers associated with the WordPress project, Dr. Dave: "Matt's decision is probably one of the stupidest in the history of the project. But rather than seeing it as malicious or even fundamentally selfish, I interpret it more as a reflection of what represents the major problem of WP. A very common problem that is found in more than one Open Source project: the oversized ego of its main developer." Sky-high costs For my part, I see it as one of the problems that, increasingly, designers of free software that suddenly gain popularity are facing. What do you do when a project that you work on almost full-time, with no income, and in which you have to synchronize the efforts of a crowd of associated programmers, becomes a financial abyss? To give you an idea of the popularity of the software, in a few weeks, more than 100,000 people downloaded the new version of Wordpress. I can't imagine the costs in terms of bandwidth. They must be astronomical. And let's not forget the thousands of hours spent responding to the pleas of users who constantly ask, when will this or that feature be released or when will a new improved version be released? And what about your personal life and productivity in your permanent job? As a user of WordPress, the tool that I use to write my personal web diary, I feel personally challenged by this whole story. I feel a moral responsibility to contribute in some way to the efforts of the WordPress community. Moral, but not legal, because when you carefully reread the GPL license accompanying the software, nothing obliges me to give even a dollar in order to continue using WordPress. And the same goes for all the free software that I use on my different machines. A donation As for me, I resolved this ethical conflict by sending a monetary donation to the WordPress community equivalent to the service it provides me. But I could just as easily have decided to give my time to the community in order to contribute to the localization of the product or its improvement. Once again, nothing obliged me to make this donation, and nothing obliges you to do the same either. Likewise, nothing obliges you to give a large amount. The good thing about free software is that everyone is free to estimate the value they give to a product. And you, dear readers? Do you use free software on a daily basis? Surely! For example, if you are surfing the Web with the Firefox browser, you have in your hands one of the jewels of free software. Do you consider yourself to have any responsibility towards its community of developers? Have you sent a donation to a free software community? Do you contribute your time to the improvement of free software? Do you feel a moral responsibility to support free software in any way? I would like to hear from you on this subject. mdumais@ledevoir.com

## ###ARTICLE\_START### ID:17

SALON. Neverball, Xfoot, Balazar, Wormux... these video games, little known to the general public, have the particularity of being developed in open source. Their code is freely accessible, allowing everyone to make improvements, an approach that goes against the grain of the practices of this ultra-competitive sector. By hosting this second Linux video game show, Limoges becomes this weekend the hub of free software, opening up this year to graphic arts and music, with free rock (Godon) and GameBoy music (Thamieu). Around twenty conferences with presentations of free games by their authors, technical interventions on the creation of games and the distribution of free works, workshops led by around ten associations around games, Linux, music... Also worth mentioning, a Lan Party Quake 3 open to all with free pre-registration and lots of games available during the two days.

## ###ARTICLE\_START### ID:18

For the people of Brest, software, word processors and browsers are now free. And this is thanks to the town hall. A CD-ROM containing a compilation of free software has been sent to the town halls, libraries and "maisons pour tous" of the 89 communes of the Brest region with a proposal for associative assistance for installation on individual computers.

## ###ARTICLE\_START### ID:19

On December 3, to general astonishment, a spokesperson for the multinational Dow Chemical declared on the screens of the very serious BBC that the company assumed full responsibility for the Bhopal disaster and was preparing to compensate the victims of one of the greatest industrial disasters in history (Libération, December 4, 2004). The spectacular announcement went around the world before being officially denied. A hoax by The Yes Men, champions of media imposture, who wanted to give a global echo to the injustice done to the victims on the occasion of this sad 20th anniversary. Bhopal is the latest in a long list of media torpedoes directed since 1999 against the WTO, multinationals, Bush... by this formidable duo of American activists. One of the two chief hackers, Andy Bichlbaum, will be present at the "Hacktivism" evening scheduled at the Maison populaire in Montreuil this evening, a round table that aims to introduce this movement, offensive in the rest of Europe but embryonic and little-known in France. Infiltrated network. Through their subversive tactics, The Yes Men are at the forefront of this practice at the crossroads of hacking, art and activism. The term hacking refers to computer piracy that does not have destruction (cracking) as its objective but which campaigns for the free circulation of information in cyberspace: "This positive concept of hacking appeared in 1984 with the Chaos Computer Club (one of the oldest hacker organizations), which infiltrated government networks to denounce their Big Brotherization," explains Nathalie Magnan, media tactician and organizer. The notion of hacktivism broadens hacking to more political horizons. It emerges through the theoretical interventions of the Critical Art Ensemble, a group of artists who have theorized "electronic civil disobedience" and the practices of the Electronic Disturbance Theater. In the mid-90s, the latter called for a virtual sit-in against the Mexican government and the Pentagon to protest the repression of the Zapatista uprising (all it took was installing a small program that caused avalanches of requests to block its sites). Parodies. The Yes Men use the Net to mount operations that are deployed in the physical world. Creation of fake parody sites (of the WTO and other multinationals), through which they get invited to international conferences under false identities, to deliver the most outrageous liberal speeches to a very official audience (as in Tampere, Finland). "What is fascinating is that they push logic to its limits, to the point of absurdity, and what is terrifying," notes Nathalie Magnan, "is that in most cases, there is no reaction to the enormities they spout." Their bluffing is the subject of a film that will be released in French cinemas on April 1st. The evening will see a screening of the documentary dedicated to Public Netbase, a Viennese institution of Net culture that was very active over the last ten years, before the government cut its subsidies. Among the projects it has supported is the "guerrilla marketing" campaign by the Italians of 0100101110101101.ORG, who made astonished passers-by believe that Nike was preparing to rename streets, squares and parks in capitals with the brand name (Nikeplatz, Nikestreet, etc.). Or the construction of an aerial vehicle by Slovenian hacktivists from Makrolab, to carry out civil counter-surveillance by handing over the control technologies used by States to independent observers. The DVD was translated by the artistic resistance collective Art Action, present at the evening. Also worth discovering is the impressive cartography work of Bureau d'études, which deciphers the contemporary "world system" in ultra-detailed thematic compass maps, highlighting the connections between the poles of power (economic, scientific, political, military, etc.). Journalist Jean-Marc Manach, co-organizer of the Big Brother Awards, will discuss the founding myths of hacktivism (hackers, media activists and defenders of free software) and the attempts to recover it (buzz, "viral" marketing and economic intelligence).

## ###ARTICLE\_START### ID:20

As it approaches its tenth anniversary, Le Monde.fr, the daily newspaper's website, is renewing its offering. Presentation, content and navigation from one page to another changed on Sunday, March 20, in order to support the evolution of a site born under the wing of a daily newspaper and which wishes to use all the resources of multimedia and interactivity. Less than a quarter of the pages consulted by Internet users on the site are now articles published in the daily newspaper, while Internet-related content (video, blog, search engine, slideshows, etc.) plays an increasing role in the world of electronic information. More than 30% of French homes are now connected to the Internet, half of which are broadband, according to Médiamétrie. For the leading French news site, with 600,000 visits each day, an editorial and technological advance had therefore become essential. The editorial offering of the new site responds to two concerns: for visitors, all the news at the time of their connection; for subscribers, additional content and services to build a new universe of online information. FEWER BACK AND FORTH All pages have been redesigned to allow continuous flow between articles, animated elements, interactive content or videos dealing with the same information. Thanks to a constantly updated display of lists of titles offering to "Read", "See" and "Debate", the Internet user avoids multiple back and forths to the home page thanks to navigation without unnecessary clicks. The 60,000 subscribers of Le Monde.fr, who already had an information "desk" with more than fifty news feeds and photographs, now have access to news video feeds from press agencies. This tool, which provides Internet users with resources usually reserved for information professionals, is reinforced by the implementation of content syndication feeds. These are technologies that allow subscribers to be alerted and news from Le Monde.fr to be transmitted to them without delay. Like most major news sites, Le Monde.fr has, in order to achieve profitability, developed a computer system created and configured by its team using free software and which can be constantly adapted to its needs.

## ###ARTICLE\_START### ID:21

Google could buy Wikipedia. It would be a bit like a marriage of carp and rabbit. The king of the Internet and the free online encyclopedia, fed by Internet users themselves, are negotiating a rapprochement. "Google has offered to help us," explains Yann Forget, spokesperson for the Wikimedia Foundation for France. Victim of its success (1.5 million articles today, including 500,000 in English), Wikimedia is looking for servers and bandwidth. Google is able to satisfy its needs. In exchange, all of Wikipedia's content would be available to Google. The search engine will not require advertising on Wikipedia, so as not to affect its "open source" spirit... Yet another way of concentrating information, while responding to Microsoft, whose search engine has just integrated the Encarta encyclopedia.

## ###ARTICLE\_START### ID:22

The Commission is getting annoyed with Microsoft. Convicted a year ago of abuse of a dominant position and forced to apply "corrective" measures, the software leader is reluctant to put them into practice. "There are limits to our patience," warned Jonathan Todd, spokesman for the European competition services, on Friday, who detailed "four main concerns." The criticisms concern the terms of the provision to other publishers of the technical information they need so that their products can operate in conjunction with those of Microsoft. The remuneration demanded for licenses allowing access to technical data "appears unjustified," the Commission points out. What's more, developers of free software, such as Linux, are prohibited from acquiring licenses. "Microsoft was notified on December 22 of the measures to be put in place," says Jonathan Todd. "They are dragging their feet. If they do not respond within two weeks, we can move on to the next phase: inform them of our grievances (this will take two to three months) and then impose a daily fixed fine corresponding to 5% of their 2004 turnover." The other "remedy" consisting of offering Windows without the Media Player software is still under consideration, the Commission specifies.

## ###ARTICLE\_START### ID:23

AT FIRST, it was hidden. It must have been too ugly to dare to show it off on the front of the PC. So, it was relegated to the back, on the other side of the central unit. Ports with ports, that was common practice. Parallel ports or serial ports, invisible, and above all inaccessible. We connected printer, keyboard and mouse once and for all, and we forgot about them. So much so that when the new little port arrived about two years ago, we didn't really try to understand. We put it with the other ports, in the reserved space, behind the unit, not far from the noisy fan. It was saddled with a funny name: USB, for Universal Serial Bus. No matter, it was mainly destined for a more glorious destiny. Because, today, it has grown and multiplied. And who would think of hiding it behind their computer? Nobody: now we want it there, within reach, because it is used for everything. We have left some to watch the backs, for the printer, the scanner, the modem. And we have displayed others in the front line, on the front. Digital cameras, webcams, MP3 players have logically found their way into the bowels of our computers. There you have it. It was necessary to pay tribute to it as a preamble. Without it, no USB key, no mini USB hard drive. Sometimes pretty, funny, always practical, disks and keys invade our desks, our pockets and hang around our necks. They have a primary function: to store data. They replace in a way the "old" floppy disk, which is on the way out. No more readers on today's PCs: the mega and a half of data contained in these ancient "rusks" would no longer be enough these days to contain photos, music and other video clips, which we exchange, which we always want to have on us. Even less so our lives, our memories, our whole being, which is now digitized. These attics of existence need space, several gigabytes of digital space. More modest, it was first USB sticks that were the first to appear on the shelves: 8, 16, 32 and 64 megabytes to start with. It was good, but not enough. Just enough to store a few files to work on at home, a small packet of digital photos, a bit of music, but not too much. It was still practical for exchanging a few large files, when attachments that were too heavy are "rejected" by the server. Basically, you need 1 MB for a minute of MP3 song, half that for a good digital snapshot. Do the math: these capacities were a bit tight. Then, as is customary in the world of new technologies, memory grew - 128, 256, 512 MB - and prices dropped. We were starting to see things a little more clearly. At 1 gigabyte, the weight of the latest keys, we can breathe easier. A gigabyte is almost 17 hours of music in MP3 format. Since that is not always enough, here come the mini hard drives. Their name says it all and they too plug into the famous USB port. What's new? Functionally, not much. The disks are a little bigger and a little more fragile than the keys because, unlike them, they contain mechanical elements. In other words, it is possible to throw some against a wall with little or no damage. The others, on the other hand, will require a little precaution. But, in exchange, these small hard drives offer much more dizzying storage capacities: up to 20 or 40 gigabytes, 80,000 photos or 666 hours and a bit of music... And this storage space could give ideas. For example, why not install on these memories not only files, but also programs. We imagine, barely as big as a lighter, having a USB disk containing operating systems, Internet connection protocols, free and lightweight software, favorite Web addresses, calendar... PCs could then get rid of their internal disks, their mandatory software. Thus, this small port, which arrived discreetly, will have completely revolutionized personal computing.

## ###ARTICLE\_START### ID:24

Milou is the name of a dog as well known as that of its owner, a Belgian and a reporter by profession. But Milou is also the contraction of the first names of Mimi Lefebvre and Lucio Raffaelli who will open, at the beginning of April, at 1178, Avenue Cartier, opposite the Merlin, a new boutique that will bear the name of "Les Imprévues de Milou". The couple was, until last year, the owners of Importations Mira on Avenue Maguire, a store that specialized in the sale of espresso machines and high-quality cookware, in copper or stainless steel, particularly imported from Italy. The business on Rue Maguire has been sold; Mimi and Lucio have taken a sabbatical year but they are bored and have decided to relaunch themselves in another kind of business, very different from the first one, and in which one will find neither coffee machine nor three-ply pans. "A store for adults and children," Lucio Raffaelli told SOLEIL. Quebec at the World Skills Competition in Vocational Training Some fifteen young people from vocational training centres and technical colleges in Quebec will fly to Finland at the end of May, where the World Skills Competition in Vocational and Technical Training will be held. Selected at the Canadian Olympics in Manitoba in May 2004, the members of the Quebec team are participating in 13 disciplines. During the competition days, they will display their know-how and talent to win one of the gold, silver or bronze medals. Among these competitors, several come from the Quebec region. They are: François Lessard and Dave Castonguay, from Cégep de Limoilou, students in mechatronics, Judith Buteau, from the Fierbourg Vocational Training Centre, who is learning the florist trade, Élaine Bernard from the Fierbourg Vocational Training Centre, in Food Service, Mathieu Girard from the Pavillon technique de la capitale in refrigeration and Éric Blouin-Duchesne from the École hôtelière Capitale, studying cooking. The event will bring together 800 competitors from some forty countries. Secondary wood processing in Quebec City PÔLE Québec Chaudière-Appalaches (QCA) recently launched its strategic plan for the Secondary wood processing sector in the QCA economic ZONE. With nearly 300 companies employing more than 8,000 people and generating annual sales of $1.4 billion, the Secondary wood processing sector represents an unsuspected economic force for the Québec Chaudière-Appalaches economic ZONE (QCA ZONE). Entrepreneurship Competition The Quebec Entrepreneurship Competition is now recognized as the largest annual competition aimed at promoting entrepreneurship in Quebec. Bringing to the forefront a new generation of all ages whose dynamism and talent contribute to enriching Quebec know-how, and this, in all regions of Quebec, its mission is to promote and reward entrepreneurial initiatives in the school environment and the creation of new businesses in all regions of Quebec. To find out the terms and conditions of the competition and to register before 4 p.m. on March 21, simply go to the following website: www.concours-entrepre neur.org. Information can also be obtained by calling 644-4255 or by email: cqe@riq.qc.ca. Save like Antoine, invest like Sophie...! The Autorité des marchés financiers is joining forces with its partners in the Canadian contest Teste ton IQ financier, which runs until March 21. More than 65,000 young Canadians aged 15 to 21 will be invited to participate in this online contest, the goal of which is to raise awareness among young people about the importance of saving and investing wisely from a young age. The test, available on the website www.ttqif.ca, highlights the importance of saving and budgeting in a fun way. Teachers are also invited to use this test as a teaching tool. Young people who obtain a passing grade of 60% will be eligible to win a digital video camera. There will be a total of 13 winners (one per province and territory in Canada). Each winner will be invited to make a short video on the benefits of budgeting, saving and investing. The director of the winning video will receive $2,000 in cash. Source: Communication Québec. Free office suite Génération Linux, a company specializing in the installation and configuration of free software, offers members of the Quebec and Lévis business community the opportunity to install the OpenOffice compatible office suite on their computers for free. OpenOffice is a latest-generation free office suite that includes a word processor, a spreadsheet and a presentation creation tool. This free solution is a perfect replacement for the most popular commercial software and thus represents a saving of several hundred dollars per workstation. Free, functional, compatible and legal software generally has the advantage of better resistance to viruses. Subject to the availability of its technicians, Génération Linux's offer targets a maximum of 10 PC-type workstations in Quebec and Lévis companies that have no commercial activity in the IT field. Editor's note - This column is published on Mondays and Wednesdays. To contact the author of these lines, call 686-3394 or write to PChampagne@lesoleil.com

## ###ARTICLE\_START### ID:25

Technology is not an end in itself. It is only a means to realize the dreams of creators, whatever their chosen field. Just like the builder's hammer, the computer and its surroundings are only tools aimed at creating a "work". This is why this column has taken a more socio-economic turn in recent years. It is much more captivating to see what can be built with these tools than to discourse for hours on the virtues of this or that "hammer". What is fascinating with new tools and the arrival of the Internet is to note that, suddenly, by pooling their forces, and sharing their ideas and thoughts, amateurs manage to shake up industries to the point that its professionals must deal with the work of amateurs. Take astronomy, a thousand-year-old science if ever there was one. Since its very beginnings, only professional astronomers have been the great repositories of knowledge and research. It was not until the first lenses were available to everyone that, suddenly, amateurs invaded this field. Today, who can deny the contribution of amateur astronomers to the advancement of this science? It even happens that amateurs beat scientists at their own game. Indeed, the prestigious journal Nature revealed last January that amateur astronomers, armed with powerful computers and sophisticated software, had managed to outpace NASA astronomers by reworking the raw images sent by the Huygens probe on Titan. A documentary in itself However, with the new technological tools that are more powerful and easy to use, anyone who manages to tame them is allowed to create. Some will prefer to pool their strengths in order to improve the available tools, understand by this free software, while others will distinguish themselves by using the full potential of these tools in order to create "works" that previously would have been impossible to produce. Let me, for example, draw your attention to the latest issue of Trente, the magazine published by the Fédération professionnelle des journalistes du Québec. In this issue, the journalist and editor-in-chief of Trente, Jean-Hughes Roy, published an interview with his colleague from TQS, Russel Ducasse, in which the journalist from the "black sheep" confided that new technological tools had allowed him to produce a two-hour documentary single-handedly. We repeat, single-handedly. Remember that five or six years ago, such a feat would have been simply impossible without the help of hardware inaccessible to ordinary mortals. Similarly, the documentary that Ducasse produced could very well have been done by others. Provided they had the talent. Because we must not fall into the trap of miracle technology that can do everything. For example, despite my relatively good knowledge of the tools that Ducasse used, could I have achieved what the TQS journalist accomplished? No, definitely not. I don't think I have that talent. But others can. You only have to attend a Kino evening to be convinced. Originally, the Kino collective brought together a group of cinema enthusiasts who could not practice their art, due to lack of means and access to tools. Thanks to new tools, broadcast-quality digital cameras and Final Cut Pro editing software, these aficionados of the 7th art are today shaking up the world of documentaries and short films. Obviously, the worst rubs shoulders with the brilliant. But that is technology, a formidable amplifier of talent and imagination that allows creators to stand out. Podcasting It is a bit like this new trend, podcasting. In addition to changing the way we consume radio, podcasting could also encourage the emergence of new radio shows broadcast only on the Internet, covering topics that we hear about nowhere else. But not everyone can become a broadcaster. Having listened to many podcast shows in recent months, I can say, at the risk of offending many, that more than 90% of these digital broadcasts are simply unwatchable. However, while browsing the Web, you sometimes come across an amateur who has the gift of getting ideas across through voice. A crazy idea: couldn't a broadcaster like Radio-Canada aggregate the most promising Internet radio stations in the center of an all-digital portal in order to offer its listeners 100% quality Internet content? There would be many challenges to overcome, copyright, ethics, compliance with journalistic standards, etc. But what extraordinary potential for radio. Imagine, for example, a show where one of these amateurs, passionate about Quebec music, would offer daily shows, which could subsequently be repeated on Première Chaîne as part of reports. Vector of change But there are not only technological tools. What about network culture and the Internet? Indeed, the Internet is intended to be a formidable vector of change. And the next ones who risk paying the price are academics and those who work in the world of research. Indeed, by leveraging the power of the network and the notion of knowledge sharing, passionate amateurs will undoubtedly achieve results in several cutting-edge fields. A point of view shared by Sébastien Paquet, blogger and researcher at the NRC Institute for Information Technology in Moncton, with whom I had the opportunity to discuss it during a recent meeting in Montreal. "A growing number of people are engaging in an intellectual approach outside of research contexts. Thanks to the possibilities offered by the network, they collaborate in a way that is often more open than traditional researchers, and it would not be surprising to see them contribute to interesting advances in the years to come." In short, link all this to new advances in intellectual property, such as Science Commons-type licenses, and it is not said that one day an important scientific discovery will not be made by amateurs. In fact, I can already see it. The next century? It will most certainly be the century of amateurs. They just need to find common ground with the professionals. This column was inspired in large part by Charles Leadbeater's article "Amateur Revolution," a reflection published in Fast Company magazine in October 2004.

## ###ARTICLE\_START### ID:26

The end of cable television, replaced by thousands of television channels available on the Internet. The end of the television, replaced by a high-definition projector. The end of the telephone plugged into the wall, replaced by real-time audiovisual communications. It is the beginning of an era of interactive creation and communication. Project yourself into the near future. Imagine your computer connecting an infinite amount of content on the Internet to your stereo and your home theater, all equipped with five to eight acoustic speakers that surround you. Imagine starting an amateur band whose members live in the four corners of the world and who jam together whenever they want. Imagine yourself in an amphitheater tripping out on what is happening in front of you, but also on musicians performing simultaneously in a theater in Barcelona, Hong Kong or Berlin. Imagine abandoning the good old telephone for your long-distance communications and replacing it with a microphone integrated into your personal computer. This is what was discussed yesterday at the Society for Arts and Technology (SAT). A leader in new cultural practices in the digital age, the work of the Open Territories (TOT) research network, coordinated by a team from the SAT, was presented. Over the past two years, the research program has been "the first territory dedicated entirely to the creation and dissemination of cultural content on broadband networks." Examples that capture the imagination? "The nSlam software that we designed as part of the TOT project works with delays of around 30 to 40 milliseconds. This is extremely close to real time. Our first version of the software allowed sound to be broadcast over the Internet and thus transfer content in one direction with a delay of four to six seconds; there was no real interaction in this case. The delay problem was subsequently considerably reduced with the development of a (free) communication software Net Send, which allows sound transfers with delays of less than 100 milliseconds," explains René Barsalo, Director of Research and Strategies at SAT. In the coming months, the TOT project plans to be able to send and receive information in two different locations. "The teleCHACHA software," says René Barsalo, "will allow an artistic performance to be held in two or more different cities. The audiences are in different locations, they can clap their hands together and dance to the music of a group formed on two stages. The idea has been around for a while, but there are still problems of intelligibility and delay in transmissions." "Currently we can transfer up to 30 sources of information at 32 bits, which is twice the quality of a normal CD. We do this via optical fiber. We transmit this information using eight loudspeakers (8.1 mode), but we can very soon envisage transferring the sound in 5.1 (five loudspeakers) using a normal high-speed connection." It can be deduced that the general public will soon have access to these innovations reserved for a restricted community of researchers and artists. "TOT also includes a research axis for very high definition video transmission in real time. We are working on immersive projection spaces, that is to say systems projecting images using software that can correct these images if the projection surface is not perfectly flat - hence the Light Twist research project. Finally, PixelTANGO is a video creation software that allows you to combine several cameras or even signals from 3D computer images. This software will be very useful to video artists and veejays." The SAT now wants to be an urban hub, an agora where people converge on site and can also communicate and interact with other artists and researchers from all over the world. At the SAT, therefore, we are not shoveling clouds. Because there is already a vast public open to new multimedia practices on the Internet. The potential for expansion is enormous and its growth is likely to be extremely rapid. By the end of 2005, 300 million people will have subscribed to high-speed Internet. Currently, 5 million people are already connected by 100-megabyte fiber optics, particularly in Japan and South Korea. In the United States, real estate projects are attracting new buyers with fiber optics as an added value. Science fiction? No way. To learn more about the TOT project, visit www.sat.qc.ca

## ###ARTICLE\_START### ID:27

Brussels (EU) correspondence European ministers who said they were opposed to the draft directive on software patents have finally let the text pass... with the aim of making their voices heard during the second reading. A curious strategy that aims to postpone the battle. And at the same time gives the advantage to the patents supported by the global software giants, Microsoft in the lead, against the supporters of free software, who want to leave computer programs available to all. While the text had been blocked for nine months, the ministers responsible for competitiveness of the Twenty-Five managed yesterday to sign their political agreement on patents concluded last May. Poland, which threatened to go back on its word, ultimately did not take action. It would have been unprecedented for the Council to have to go back on a political agreement. Only Spain therefore opposed the agreement. Belgium, Italy and Austria chose to abstain and a number of other countries finally agreed to join the compromise, without abandoning the idea of obtaining amendments after the second reading in Parliament. Initially in 2002, the Commission's approach aimed to bring order to a chaotic legal field, which did not allow a clear red line to be drawn between what is patentable and what is not. Faced with Microsoft, Nokia, Siemens and Philips, who claim that software patents are essential to them in order to pay for their investments in research, the supporters of free software managed to make their voices heard. For them, such a patent constitutes a brake on innovation by making it impossible to write new software. In September 2003, during the first reading of the text, an alliance of Green, Socialist and Liberal MEPs made it possible to align the text with the positions of the anti-patents. The ball then passed into the court of the European ministers, who blocked the text until yesterday. As soon as the agreement was announced, the Commissioner for the Internal Market committed to "constructively seeking with Parliament and the Council of Ministers a compromise acceptable" to the two co-legislators during the second reading of the text.

## ###ARTICLE\_START### ID:28

European ministers finally signed yesterday the agreement on the patenting of computer innovations in the Union. This agreement aims to harmonize the protection of innovations in technologies related to computers and their derivatives. The Council of European Ministers had certainly adopted a position of principle last May, but since then, tensions have not calmed down between the Member States in favor of patenting and those who prefer the practice of "free software" (which allows companies and individuals to develop functions around a given software). The supporters of the patent believe that only patenting ensures that they will reap the fruits of their investment. Yesterday, the European Organization of High-Tech Companies (Eicta) - which brings together SMEs but also giants such as Siemens, Nokia and Alcatel - judged "that the text is balanced and that it protects and encourages innovation in Europe". Eicta is therefore in favor of patenting. The agreement seeks to remove the ambiguities that remained. It does not concern computer software "as such", but "computer-implemented inventions (...) whose execution involves the use of a computer, a computer network or another programmable device", such as mobile phones or smart household appliances. To be patentable, the invention must make a new "technical contribution" and be "capable of industrial application". Simple office software will therefore not be patentable, unlike software for controlling a car braking system. Yesterday's formal signature was made possible thanks to the Luxembourg presidency's evasion, which has avoided for the moment a substantive debate on what software really is. Yesterday's progress paves the way for a second reading in Parliament. Since the provisional agreement of 18 May, Poland, which is rather in favour of free software, has been threatening to change its mind, at the risk of bringing down the qualified majority. Finally, it joined, alongside Hungary, Latvia, the Netherlands, Denmark and Cyprus, but called for clarification on the nature of patentable inventions. Belgium, Italy and Austria abstained. Currently, only Spain is opposed to the "patenting" of software.

## ###ARTICLE\_START### ID:29

"How is it possible to make money with a product that is given away and available almost everywhere for free?" This question is probably the one that comes up most often when the subject of free software is raised with entrepreneurs. Portrait of some products and companies that successfully use free software. The Linux operating system. Not a week goes by without a new distribution seeing the light of day. Internet users who want to embrace free software and install Linux on their computer now have the choice of downloading the version of their choice and installing the one that best meets their needs. Whether on a PC or a Mac, in a client environment or for the pleasure of owning their own server at home, Linux is a solution that is difficult to turn up their noses at. More and more, tinkerers decide to recycle an old computer in order to make it a personal server that will host their files as well as their website and an email server. It must be said that with the high-speed Internet speeds offered by service providers such as Videotron, Bell, CAM, iStop and others, it is attractive to want to be your own host. However, while installing Linux on a computer has never been easier, configuring a server requires technical knowledge that is not within everyone's reach, despite the mass of popularization manuals published on the Web. Several local companies, aware that a new market is developing, are now offering their Linux solutions intended for ordinary consumers and small businesses or community associations without too many technological resources. A solution for recycling old PCs An old PC ready to be recycled into a home server, high-speed Internet, an hour or two to tinker and a CD-ROM with the ClarkConnect distribution, a company established in Toronto: here is everything you need to configure your own personal server at home or on the premises of your small business. The idea behind ClarkConnect is quite simple: to allow anyone to have their own file server and Internet by hiding the hassle of configuration behind a user-friendly interface. Internet users are offered three choices: the "home" version, given free of charge, and for which the company offers no technical support or automated update mechanism; the "professional" version, which is paid for and intended to become a file server, a router and a firewall; and the "office" version, which adds Internet services such as a Web server, an email server and a whole battery of applications designed to establish a presence on the Web to the features of the "Pr" version. Installation? Let's not even mention it, a charm. In fifteen minutes, everything is done. All that remains is to access the configuration interface using a simple browser to start up the beast. And, oh joy, oh happiness, although everything is initially installed in English, ClarkConnect allows you to continue in the language of your choice. A simple click and all the menus switch to French. Of course, I can hear the question coming, "How does the gentleman make his profits?" By offering added value to the basic product. For example, the consumer has the choice of several complementary service offers: dynamic DNS server to bypass the restrictions imposed by certain service providers to prevent their customers from using their personal server, automated updates, protection mechanism to counter the inevitable attacks, anti-spam and antivirus filters that check the emails that pass through the server. In short, for a few dollars a month, we pamper the server and ensure that it will run smoothly and protect its users. Once again, if you feel like a budding system administrator, the free version allows you to have fun installing and configuring these services. In addition, a community of ClarkConnect users has set up shop on the Web to help out adventurers who have chosen the tinkering formula. For the head of technology Alain Gaeremynck of the company InterStructure, accustomed to Linux server management, "the ClarkConnect distribution is the perfect tool for anyone, whether a simple consumer, small business owner or association manager, who wants to have their own server without worrying. The ClarkConnect management tools are flexible and easy to use enough that any errors cannot have too much of an impact on the proper functioning of the server." It goes without saying that I can hear the other question coming: "Does this thing really work?" Having installed it on my new server, I was very pleased to note that, for more than a month, almost no spam or virus managed to get through the filters installed on the beast. Similarly, despite a considerable number of attacks, the ClarkConnect tools stopped any attempts by amateur or non-amateur hackers. In short, a highly recommended product, both for those who want to have their own server at home, and for small businesses or associations that want to have their own server without having to have a system administrator in residence. Axentra, the choice of integration We have already spoken to you in these pages about the Hull company Axentra, and we will speak to you about it again, because here is another company that has decided to play the game of free and free. Indeed, Axentra has rather opted for the integration card by offering personal servers ready to be connected to the Internet in a few minutes. Here, no need for tinkering. You take the small server out of its box, connect it to your network, and in less than ten minutes, you are present on the Web. Web server, email server, firewall, file and printer server, everything is perfectly integrated so that the user can connect it to the Internet... and forget about it. And just like ClarkConnect, at the heart of Axentra's business strategy is free software. A revised and improved Linux distribution, a user interface that is still ergonomic and easy to use, and above all, advanced integration of software and hardware. In addition, over the past year, Axentra's offering has been greatly refined. The hardware used (processor, hard drive, etc.) has benefited from major updates, the case has gained a bit of weight, in favor of better ventilation. The same goes for the software (a Linux distribution) which has been improved in every way. Christian Aubry, technical advisor for communications at RISQ (Réseau d'informations scientifiques du Québec), an avowed supporter of free software and owner of an Axentra server, swears by his new baby. After multiple attempts to tinker with his own server using well-known Linux distributions designed for an experienced system administrator, the purchase of an Axentra personal server allowed him to forget the many hours normally spent managing a server. His various websites, his email server, his files, his printers and his internal network at home, everything is now managed by his Axentra box. But this integration does not come at the expense of possible expansion. Aubry says, "since it is a 100% Linux tool, I can install my own network applications (also free) which are normally not part of the Axentra offer. In addition, since updates are included in the price of the device, such insurance allows me to have peace of mind without having to invest many hours in installing software patches and reconfiguring my server." And it seems that Aubry is not the only one to recognize the excellence of the product. At the last CES (Consumer Electronic Show), Axentra earned a "Best of Sho" award, an important recognition in the consumer electronics industry. And while we're at it, why not give you a little scoop? Indeed, Axentra will soon announce the commercialization of the software that powers its server. The Axentra server platform will be available in a few months for PCs and... yes, for the Mac Mini. Last week, we dreamed of using the Mac Mini as a personal server. Since Apple has shown no intention of invading this market, Axentra has decided to occupy this place and migrate its software platform to the Mac. A brilliant move. And one that answers the question: "How is it possible to make money with a product that is given away and available almost everywhere for free?" mdumais@ledevoir.com

## ###ARTICLE\_START### ID:30

Scientific and technical advances are major factors of change in our societies. Often bringing progress, sometimes bringing risks and new dependencies, they are rarely discussed and oriented in a democratic way. Hence the crises and citizen protests of recent years. As early as spring 2004, with other associations, we had argued that the research crisis was not a cyclical phenomenon, limited to the budget cuts of the Raffarin government, but corresponded to a deeper break in the relationship between science and society. Although excluded from the initiative and proposal committee made up of leaders of the Academy and the Sauvons la recherche collective, we had made proposals to democratize decision-making on scientific and technical choices, and to make non-profit societal actors (producers of open knowledge such as free software, user associations, patients, solidarity and environmental protection associations, etc.) full-fledged actors and partners in research. Hearing the government talk about a "new pact between research and the nation" in the introduction to the research orientation and programming bill, one could hope that the message had been received. Reading the text, this is not the case. Quantitatively, we are far from the promises made to researchers, since the current plan will struggle to reach the promised 3% of GDP. In addition, the announced figure of 0.86% of GDP for the public research effort this year is wrong: if we want to compare with other European countries, we must subtract military, nuclear and space spending, which brings us to 0.6% of GDP and places France at the back of the European pack. Qualitatively, the bill is unacceptable to civil society: nothing remains of the timid proposals of the research general assembly or the proposals of the associations, except for the introduction of a few thesis grants in the associative environment. Two thirds of the articles of the law are tax provisions. It seems like reading a Medef project reviewed by an engineer from the major bodies. The vocabulary has certainly been renovated: now we say "partnership" research, "co-construction", "pact with society". But "society", for Raffarin, Aubert and Fillon, is companies, companies and companies. There is no question of demands from citizens, non-profit actors in civil society, associations or the social and solidarity economy. Worse, the logic is reversed: now it is corporate research that is presented as the driving force behind public research. Of course, supporting innovation to produce marketable goods is one of the missions of research, but what about other missions such as the production of knowledge about our world, higher education and the production of public goods and innovations in response to the non-marketable needs of society? Already the logic of short-term financial profitability limits the collective capacity of our societies to produce knowledge, to develop independent public expertise and to develop innovations of general interest: thus the noose of patents is tightening around free software, or research on genes. Monsanto and Dupont hold more patents in plant biotechnology than the entire public sector in the world, and only 0.001% of the global biomedical research budget (public and private) is devoted to the study of major infectious diseases in poor countries. Instead of seeking a rebalancing, the government's bill aggravates this logic. Let us judge for ourselves. More than two-thirds of the planned budget increases will go to industrial innovation and to mechanisms helping companies to manage and sponsor public research. Public laboratories, thirsty due to a freeze on their basic credits, will have to appear "sexy" for companies whose contracts with a laboratory of their choice will be deducted from their corporate tax. Universities are only supported if they create research and higher education centres (Pres) and doctoral training with industry. In total, gifts to companies will increase from 20 to 30% of the civil research budget in two years, of which almost half will be tax breaks (such as the research tax credit) which, being totally blind, deprive the State of the means for a real industrial policy. In terms of steering, the bill creates a High Council for Science. Almost half of the members will be personalities from the "socio-economic world" without any place being provided for associations representing users and societal actors with non-profit purposes. Should we not clearly establish by law, in all research and higher education governance bodies, parity between economic actors engaged in the production of marketable goods and services, and non-profit societal actors representing the non-marketable needs of our society? The account is also not there in terms of democratization of the major choices of scientific and technological priorities. The general states of Grenoble wanted a framework law every five years and the associations proposed to couple it with a citizens' conference on the orientations of research. But the bill only speaks of "strengthening the parliamentary office for the evaluation of scientific and technical choices" so that it organizes "public debates": no specified role, no defined procedure, no organized representation. While companies manage 20% to 30% of French public research budgets and military space or nuclear programs swallow up 40%, society would have, in an advanced democracy like ours, nothing to say on the major scientific priorities. It would not have to deal with the enormous delay of our country in terms of medical research, environmental health, and research for sustainable and organic agriculture and renewable energies. The strategy of defending research limited to the preserve of "fundamental" research without asking the broader question of the relationships between research, the market and civil society shows its limits here. The Grenoble General Assembly thus left the field open, for a few peanuts to so-called "fundamental" research, to the government's "all-business" approach. To save research, it must be opened up, in action and not just in words, to civil society! To preserve the diversity of research, to give researchers more freedom, we must avoid a single partnership with industry, establish other links with society, other objectives and other sources of legitimacy. Other partnerships are possible. It is time to invent mechanisms at the national level that encourage research in partnership between civil society actors and public research laboratories. These new partnerships are important so that society's research needs are taken into account, but they also represent a challenge for innovation. Because today wealth increasingly comes from a collective intelligence disseminated in the social body, and innovation is no longer the prerogative of traditional public or private research institutions. The production of knowledge has become more collective, according to alternative modes to the appropriation and construction of cognitive and financial monopolies. The revolution of free software and Internet cultures, the contribution of farmers and amateurs to the management of biodiversity, the rise of the expertise of international NGOs on major global problems, the co-production of therapeutic knowledge by researchers and patients in the movement to fight AIDS... These are all examples that testify to the importance that civil society has taken on over the past fifteen years, of "users" taking collective responsibility for themselves, in the production of knowledge and innovations. We can choose to allocate 100 million euros to increasing the research tax credit or allocate the same amount half to recruiting 1,000 teacher-researchers, with a reduced teaching schedule to promote their research, and half to creating an initiative fund of 50 million euros for research in partnership between associative actors and public researchers. We are convinced that the second measure is more effective, for research and for society. Christophe Bonneuil, secretary of the Citizen Sciences Foundation.

## ###ARTICLE\_START### ID:31

After "Listened to and approved by Les Inrockuptibles" or "music from the 406 advert", a new promotional stick will have to be invented: "Effectiveness proven by computer!". She Will Be Loved by Maroon 5, for example, like a sparkling mobile coming out of the Siemens factories, was in fact tested by revolutionary software: Hit Song Science, aka "HSS". We are not in Welcome to Gattaca or the next JG Ballard thriller. But almost. This musical anticipation tool was developed by the Barcelona company Polyphonic HMI. As one of the managers explained to Le Monde, the HSS program postulates that "the musical ingredients that seduce have not changed since the time of Beethoven" (1). About twenty criteria (beat, melody, harmony, chord progression, voice, etc.) were entered into the system. This one was designed on the basis of a million songs, all ranked for thirty years in the American Billboard. Exit artistic emotion, only the commercial efficiency of the title prevails. The diabolical company compares its invention to X-rays in medicine. The technique improves diagnosis but in no way replaces the doctor. In addition to this allusion to the therapeutic nature of a hit (sedative or psychotropic?), the company claims to have predicted hits like Norah Jones' first album Come Away With Me. Or this She Will Be Loved by Maroon 5. We can legitimately apply an indignant ideological reading to this type of software. Badly combed hits like Smells Like Teen Spirit by Nirvana or certain Eminems would not have passed the "HSS" ramp. But we could also return this totalitarian tool to sender. A clever hacker would tamper with HSS and apply it, for example, to the eternal sellers of the same song. From Jean-Jacques Goldman to Johnny Hallyday. The songwriters who hit us with their undetectable melodic microvariations from one album to the next would be unmasked thanks to this new free software. Because, ultimately, when we listen with curiosity to the Maroon 5 title, the hit machine allows us above all to "confirm" a reassuring idea. Even "checked" by computer, crap remains crap. (1) Le Monde, February 9, 2005.

## ###ARTICLE\_START### ID:32

PROPERTY In the midst of the battle against music piracy on the Internet, Philippe Aigrin, supported by a vibrant introduction by Joël de Rosnay, demonstrates why he chooses the other side. Far from encouraging the appropriation of patents (on pharmaceutical molecules, genetic sequences, etc.) for the benefit of multinationals, he pleads in favor of free software and open scientific publications. To reinvent democracy. Common cause, information between common good and property, published by Fayard, aims to shake up the situation in a global society reshaped by new information technologies.

## ###ARTICLE\_START### ID:33

Personal computers have been experiencing a steep price drop in recent years, which has turned into an avalanche in recent months. New devices arriving on the market are causing existing inventory to plummet, which translates into a windfall for consumers. Of course, you can expect to pay between $2,000 and $3,000 for a high-end computer equipped for multimedia, but Internet users with a smaller budget can expect to pay less, sometimes much less, than $1,000. Whether you buy directly from a manufacturer like Dell, Gateway or MDG in response to direct advertising, take advantage of one of the almost perpetual promotions of major retailers like Future Shop, Bureau en Gros, Dumoulin or Best Buy, or trust the small computer stores that are proliferating everywhere, you are sure, if you watch your money, to get a good value for your money. But once you buy a computer, you need to equip it with the software that will make it work for you. Many newcomers to home computing are horrified to find that, once they've installed their computer, the cost of basic software can well exceed the cost of their hardware. For example, a high-end software suite, such as Microsoft Office or its equivalent WordPerfect Suite, can cost anywhere from $350 to $450, depending on the version and source. Fortunately, there are cheaper options for people who want to pay less or even nothing at all, provided they're content with basic but functional tools. It all depends, of course, on what you're going to use the computer for. For someone who just surfs the Internet, sends and receives e-mail, writes the occasional letter, and manages their collections of scanned photos and music files, the options range from cheap to free. Microsoft Works Suite 2005 makes everyday tasks easier and more enjoyable with a collection of six programs: Microsoft Encarta Encyclopedia 2005 CD, Microsoft Money 2005, Microsoft Picture It! Premium 10, Microsoft Streets & Trips 2005, Microsoft Word 2002, and Microsoft Works 8 (which includes a dictionary, Power Point viewer, calendar, database, e-mail and Internet, and project organizer). Retail price is about $90. Beware: Many retailers include an earlier version of Microsoft Works in a "ready-to-go" sales package with some models at no charge. People who prefer to invest their money elsewhere don't have to look far. In fact, no further than their operating system. Windows XP, for example, can handle most of these tasks. Web browsing? Internet Explorer. E-mail management? Outlook Express. Word processing? Notepad or Wordpad, the latter compatible with Microsoft Word. File management? Windows Explorer. Listening to and managing music files? Windows Media Player. Editing photos? Microsoft Photo Editor. Chatting online with friends? Windows Messenger. Creating, producing and sharing movies? Windows Movie Editor. A firewall? Windows Firewall (sorry, you'll have to get anti-virus software separately). The best bargain For top performance at a minimal price, OpenOffice.org, the official OpenSource version of StarOffice (MD). When OpenOffice.org 1.0 was launched, no one could believe that software of this quality could be given away. A complete Microsoft suite, downloadable free of charge (65 megabytes) from http://fr.openoffice.org/about-downloads.html and available for Windows 98, ME, NT or XP, Linux and Mac OS X 10.2 or higher. It takes a fairly high degree of technical virtuosity to properly install this software, particularly the French-language dictionaries, but it's worth the effort. Officials count over 16 million downloads, not counting installations from CD-ROMs. OpenOffice.org 1.1 offers a whole range of tools: word processing, spreadsheets, databases, presentation software, online layout, illustration and other software. The price to pay, besides a somewhat complicated installation: nothing at all, but you can, if you feel like it, participate in the development project or make a financial donation. cburroughs@ledroit.com

## ###ARTICLE\_START### ID:34

BRUSSELS from our European office - The European Parliament's strategy is curious: its Conference of Presidents decided on Thursday 17 February to ask the Commission to refer the draft directive on the patentability of computer-implemented inventions to it again. This decision was taken unanimously by the political groups, including that of the European People's Party (EPP, right), which, until now, has been rather in favour of this draft text, while the left is opposed to it. At a meeting of the Parliament's Legal Affairs Committee on 2 February, French MEP Michel Rocard, who is opposed to software patenting, spoke out strongly against this referral (Le Monde, 18 February). He pointed out that Parliament had already amended the proposal in 2002, and that the ball was now in the court of the Council, the co-legislator. In September 2003, the European Parliament had tabled numerous amendments to exclude many innovations from the scope of the directive. Arguing that an idea or a mathematical formula were not patentable, the deputies had notably imposed that a computer invention should only be patentable if "it uses the forces of nature". Very much at the forefront of this fight, Michel Rocard had largely aligned himself with the position of the supporters of free software, who consider that the Commission's proposal would allow intellectual works to be patented, which is prohibited by the Munich Convention on the European patent. These supporters of free software believe that such a patent would be a brake on innovation: it would make it impossible to write new software, since this uses existing modules, by combining them in different ways. They also argue that the costs of software patents, more expensive than those of copyright, risk strangling SMEs. Global giants, notably Microsoft, Nokia, Siemens, Philips, on the contrary want this patent system which would allow them, according to them, to better reward their investments in research. THE GREENS' BET The "competitiveness" council of May 2004 expressed its disagreement with the European Parliament's amendments. But its common position never became official, due to a U-turn by Poland, which the free software supporters attracted to their camp. There is therefore no longer a qualified majority in the Council. In the European Parliament, some believe that the strategy adopted by the Conference of Presidents - with the support of the pro-patents - is dangerous: "The Commission risks returning to the charge with a text very close to its initial proposal, whereas if we had gone as far as conciliation with the Council, we could have gained more", indicates a socialist observer. The Greens are betting that the Commission will modify the text. "I dare to hope that Commissioner Charlie McCreevy, in charge of the internal market, will finally understand the gravity of the situation", indicates the Frenchman Alain Lipietz. "We expect him to do everything possible to quickly publish a proposal for a directive that takes into account the demands of the European Parliament."

## ###ARTICLE\_START### ID:35

The little tricksters. They install themselves discreetly without the user's knowledge in order to collect personal data or flood them with advertising windows. "Spyware" is today, next to viruses, the main threat that awaits every Internet user in their daily life. What do they do? "Spyware" is spyware. The most harmless ones are content to pollute the Internet user's activity with advertisements. Most do not stop at this bombardment. Acting like spies, they identify the software used, the websites visited and transmit everything via the Internet to their designers or to third parties. Some go so far as to record the slightest keystroke. Who are they? Some publishers of "spyware" are identified companies, such as Claria or Cydoor. They present themselves on their sites as specialists in "behavioral marketing" or "one-to-one". Claria explains that it "serves tens of millions of consumers and more than 1,000 advertisers." These companies claim to act completely legally. Others are more shady agencies that spy on users. "Some marketing firms sell behavioral studies based on the results provided by spyware," says Paul-André Pays, director of Edelweb, a computer security company. How do you catch them? Many free software programs, such as the Kazaa file exchange system, come with "spyware." The user is warned, provided that they read the general conditions of use that are displayed at the time of installation. Erotic sites are another frequent source of contamination. How can you protect yourself? Microsoft's Internet Explorer is known for its flaws. It is recommended to use its main competitor, the free software Firefox (www.mozilla.org). Another precaution for individuals: install a firewall software to protect your computer (for example, Zone Alarm). Finally, there are several free anti-spyware software programs available on the Internet. The most reputable are Ad-Aware and Spybot Search and Destroy.

## ###ARTICLE\_START### ID:36

IT may be a Pandora's box that the national gendarmerie has just opened. It has in fact recently swapped the Microsoft office suite (Word, Excel, etc.) for OpenOffice (OOo), a software developed by volunteer and anonymous computer scientists from all over the world. It is thus following the example of the Ministry of the Interior, Customs and several French administrations. At the same time, the gendarmerie is innovating by encouraging the activities of an informal circle of gendarme-programmers. They have thus created ic@re, a software that facilitates the writing of the approximately 500 different types of reports filled out by the brigades, which saves them from having to enter data three times. Of the million and a half reports written, "the time saved corresponds to 400 gendarme-years per year", rejoices Colonel Nicolas Géraud, from the telecommunications and IT sub-directorate. A saving that is added to the 2 million euros gained thanks to the migration to OOo. The decision to move towards free software is not ideological, warns Colonel Géraud: "It is above all strategic, pragmatic and carefully considered." The gendarmerie could also adapt an online authentication and authorization (SSO) solution from the world of free software to public accounting. These migrations respond to a concern for standardization, economy and interoperability with other players in the judicial world, justice and police in particular. The ic@re software is only a "business layer" added to this office suite. It will replace a program developed by the central management of the gendarmerie, but which was no longer used by less than half of the gendarmes, discouraged by its lack of flexibility and its inability to take into account new field practices, such as DNA procedures. The officers were falling back on programs developed by a handful of colleagues who were passionate about computers. Faced with this anarchy, the gendarmerie management "decided to channel local energies," says Colonel Géraud. Inspired by the cooperative work dear to free software, it encouraged the formation of a "community" of eight gendarme-programmers in order to retain the best ideas. They all program in their free time with the only reward being the recognition of their colleagues. Men who "stand out from the crowd and deserve a lot of respect," says Colonel Géraud.

## ###ARTICLE\_START### ID:37

The dematerialization of intellectual works - literature, music, information, etc. - is causing or will cause societal and economic upheavals, the extent of which is difficult to measure today. The dissociation of content and its physical media is in fact arousing new appetites, which tend to want to apply the same principles of appropriation to knowledge and understanding of all kinds as to material goods. On the one hand, large industrial groups are trying to lock down digital content and push back the limits of the field of property; on the other, a networked civil society is emerging and trying, by various means, to free itself from these abuses of intellectual property. Parallel and complementary, the works of Florent Latrive - journalist at Libération - and Philippe Aigrain - successively scientific researcher, European civil servant and now business leader - deal with these two profoundly antagonistic trends, which have been working on the "information society" for barely more than ten years. This decade has seen almost everything become patentable, lockable at will. Fragments of genome, animal or plant species, molecules, industrial processes, intellectual methods, surgical gestures, etc. "Modern capitalism has rushed towards a new frontier: the capture of the intangible, the appropriation of the impalpable", summarizes Florent Latrive in the conclusion of his work. The two essays are based, in part, on recent events. Florent Latrive and Philippe Aigrain thus address, for example, the controversy raging between the supporters of free music downloads and the world of phonographic publishing. Or the war of the big pharmaceutical companies to limit the copying of patented molecules in the countries of the South. In parallel with this trend, the two essays highlight alternative ways of producing and administering "informational goods". This "coalition of common goods", according to Philippe Aigrain's expression, operates in an open, collaborative manner, without economic locks. In sectors as diverse as IT (free software), the production of fundamental knowledge (open access journals), information (collaborative media), etc. COMPLEX ISSUES Both works - and in particular that of Florent Latrive - have the great merit of addressing complex issues with simplicity, at the interface between law, science and technology, culture, and of course the industrial world. Less controversial, that of Philippe Aigrain is part of a broader framework and attempts to circumscribe - by going back from daily experiences to theory - the importance and omnipresence of "information goods" in the economy and society. It is regrettable that, each on their own, the two authors have only slightly explored the difficulties inherent in the production of certain activist and collaborative media, nor the risks of compartmentalization of society linked to their possible generalization. The still uncertain nature of the economic model imagined by open access scientific journals such as PLoS is not addressed any more. Certain dangers linked to the "free model" are also not adequately addressed, such as the very current issue of the weakening of the written press faced with free access... However, each in their own way, Philippe Aigrain and Florent Latrive provide a better understanding than anyone of a rich and complex subject which could well, in the future, contribute to redefining political divisions.

## ###ARTICLE\_START### ID:38

Brussels - The Twenty-Five are still divided on the controversial European directive aimed at harmonizing legislation on the granting of patents for "computer-implemented inventions", the European Commission lamented on Friday. The text, which should have been approved next Thursday by European ministers, has been withdrawn from the agenda for the third time, regretted Internal Market Commissioner Charlie McCreevy, saying he was "disappointed". Blocked for a year in the Council, this Commission proposal has also undergone major changes in its first reading in the European Parliament. Strong opposition from the giants This project schematically opposes the global software giants, who want to be able to patent as many things as possible like in the United States (where simple ideas can be patented), and the supporters of free software, who want to leave as many computer programs as possible available to everyone. In the Commission proposal, the invention must make "a new technical contribution" to be patentable, but the Parliament finds that this text already goes too far. The Twenty-Five had reached a "political agreement" in May 2004 on the Brussels proposal, but since then several Member States, notably Poland, have changed sides and are demanding that the patentability of computer programs be clearly prohibited. Faced with this deadlock, Parliament has asked the Commission to propose a new text, which it has so far refused to do.

## ###ARTICLE\_START### ID:39

Keep tax increases below inflation. Reduce debt servicing to below 20%. Pay for a quarter of capital expenditures in cash. Finances are at the top of the list in the draft program of the Renouveau municipal de Québec presented yesterday. Estimating that it has achieved 75% of its electoral commitments for the current mandate, the RMQ, the political party of Mayor Jean-Paul L'Allier, presented yesterday what will be the heart of its vision for the next four years. The party executive feels that taxation is clearly at the heart of the members' concerns. This is why, in the draft program, we see that the party is committed to keeping tax increases below inflation and reducing debt servicing from 21% to less than 20% of the budget. This objective could be difficult to achieve, since the RMQ also wants to make up for underinvestment in infrastructure repairs, which necessarily involves borrowing. "We will absolutely have to reach agreements with the provincial and federal governments," says party president Louis Bonenfant. If it retains power, the RMQ would like to put forward a participatory budget, where the population could decide on certain expenses. "People would be more aware of the issues and the difficult choices to be made," explains Patrick Albert, president of the Policy and Program Commission. Eager to curb IT spending, the RMQ proposes using, as many cities already do, open-source software available on the market for free or at a lower cost, such as applications using Linux. PPPs remain in the air, because the RMQ proposes, in the interests of economy, to evaluate the opportunity to increase the number of partnership agreements with the private, community and intermunicipal sectors. Commitments To enhance the capital character of Quebec City, the Renouveau municipal is committed to making the Domaine Cataraqui, in partnership with the Government of Quebec, a prestigious protocol venue to welcome foreign delegations. The building and gardens would also be more accessible to citizens. To encourage families to settle in Quebec City, the RMQ is committed to instituting a policy of free services starting with the third child in the same family. The RMQ's program will be analyzed by members before its adoption at the end of April. The four candidates for the party leadership will debate the issues on February 23 at the Capitole. IMathieu@lesoleil.com

## ###ARTICLE\_START### ID:40

A constantly enriched and totally free access encyclopedia... It's a crazy dream that Diderot would not have denied in his time and that has materialized an American publisher of... erotic sites. Suffice to say that the Wikipedia project is not short of paradoxes. The adventure began in January 2001. Businessman Jimmy Wales, alias Jimbo, is also a free software addict and decides to apply the principle around a community project that is ambitious to say the least: to offer everyone totally free access to knowledge through the creation of a multilingual online encyclopedia. Today, Wikipedia boasts more than a million articles, including around fifty contributions per day for the French version alone and is also available in more than 200 languages, from the most popular to the rarest such as Mongolian or Inuit. Such editorial exhaustiveness put together in record time has even aroused the ire of some renowned publishers. The Encyclopaedia Britannica recently attacked the quality of Wikipedia content in the columns of the Financial Times. Wikipedia's dazzling success is based on a particularity that is conducive to efficiency: this new kind of encyclopaedia aims to be collaborative. In short, any Internet user can contribute to the edifice. The latest changes to the French-language version are evidence of this. A Wikipedian recently proposed the draft of an article on okra, a fruit of African origin, another wrote a detailed biography of a 19th-century Austrian ornithologist, while the chapter on thermal agitation has been considerably enriched in parallel. Finally, an Internet user returning from Algeria has made several royalty-free photos available, likely to illustrate the articles "Hoggar" and "Touareg", all without counting the multiple modifications and corrections of all kinds carried out continuously on the site. The mobilization of several thousand Internet users thus allows Wikipedia not only to constantly enrich itself with new articles, but also to be updated almost in real time. Arafat died on November 11? His biography was modified just a few minutes after the announcement of his death, as evidenced by the modification dates of the page devoted to the old raïs. Enough to go in the direction of Wikipedia, named after the Hawaiian word "wiki" meaning fast and the Greek term "paideia" for education. A community strike force with astonishing responsiveness but whose very principle exposes a major pitfall: the validity of the information. Since anyone can play the role of amateur encyclopedist, errors abound. Correction work is therefore undertaken 24 hours a day, with contributors scattered across the planet's different time zones proofreading and correcting the new articles listed on a dedicated page of the site. "It took years for commercial encyclopedias to be written. Wikipedia is still a project under development, argues Yann Forget, spokesperson for the Wikipedia Foundation. In addition, absolute reliability does not exist. Several sources are necessary to certify any information. However, the more contributors there are and from varied backgrounds, the more likely we are to have a specialist who will correct the record. "It should also be noted that there is a risk of a version war on sensitive subjects, although Wikipedia's founding principle is to disseminate information that is as neutral as possible, not to mention the actions of bad jokers or "trolls" of all kinds, Internet users who try to sow discord on the Web. The cleaning undertaken on the articles thus gives Wikipedia an air of joyful chaos, with each latest version of an article being accompanied by a history of corrections. This encyclopedic enterprise is therefore not lacking in debate within the Wikipedia community, with experts not always easily accepting being corrected by neophytes. These internal quarrels are enough to illustrate how much the Wikipedia concept challenges the place traditionally given to institutional transmitters of knowledge. We are indeed far from the biographical notes that highlight the careers of eminent experts of the authors of the Encyclopaedia Universalis. Finally, if eclecticism is the watchword of Wikipedia like the values advocated by the encyclopedists of the Age of Enlightenment, not all fields of knowledge benefit from the same interest in terms of contributions, with classical literature in particular appearing to be the poor relation. Wikipedia's major asset remains: its completely free availability, all without any advertising. Previously provided by Jimmy Wales, the financing of Wikipedia's servers and bandwidth now requires a few calls for online donations to which Wikipedians apparently lend themselves willingly. What wouldn't we do for the love of knowledge... http: //fr.wikipedia.org/wiki/ Home

## ###ARTICLE\_START### ID:41

In his Grammar of Civilizations, FERNAND BRAUDEL recounts the astonishment of an English traveler in 18th-century China, discovering that, "by human means, one can make a ship jump from one stretch of water to another, without using a lock." This anecdote, which sums up many others, makes Braudel say: "Man is worth so little in China." This is essentially what is still frightening today in the (re)appearance of China in international economic relations: that of a billion three hundred million people, ready to work hard, for almost nothing, forming an immense industrial reserve army that Marx himself would never have conceived the possibility of. Economists sometimes tend to respond in a rather blasé manner to these fears. The fact that a billion and something people decide to work almost for free cannot be entirely bad news for other countries. Moreover, contrary to a persistent mercantilist illusion, people always end up spending what they earn, and China is no exception: the world's fourth largest exporter, it is already the world's third largest importer, ahead of Japan. What some lose, others gain and more. This vision is not fundamentally false, but misses the point. It is to grasp the much broader range of challenges that China poses to the world that it is useful, urgent, to read Erik Izraelewicz's book When China Changes the World (Grasset), to grasp what makes China's entry into world trade so unique. To say, first of all, that some win and others lose is a gross understatement. Given China's size, it is better to say: some will be ruined, others fabulously rich. All the intellectual energy of analysts thus consists in taking stock and mourning the sectors where China will be an exporter: textiles, toys, televisions, passing through unexpected products of which Izraelewicz also gives a baroque list: truffles from Périgord, granite from Brittany... And to reassure themselves by giving the symmetrical list of products that it should import: semiconductors, nuclear power stations, airliners, luxury bags, hypermarkets, fizzy drinks, until the day when it decides to manufacture them in turn. Thus establishing the list of sectors threatened or boosted by the Chinese presence is certainly the priority of the moment. The real challenges that China will launch to the world during the 21st century are however of another nature, and are played out on the margins of traditional theories of world trade. The big question that China poses to the rest of the world relates first of all to what Erik Izraelewicz calls its "gluttony" of raw materials. A billion Chinese riding a billion bicycles has no major consequences for other cyclists. Let them decide to drive a billion cars, and the result is an oil earthquake. Already, the Chinese buy 5 million barrels a day, a quarter of American consumption. In 2007, that could be half the American figure. By 2030, it could be as much. If every Chinese person had to consume as much oil as every American, that alone would saturate the entire world production. SHAPING STANDARDS China's needs are not limited to oil. China already consumes twice as much steel as the United States, despite an economy nominally ten times smaller. Iron, platinum, zinc, and copper are all experiencing a price explosion for the same reasons. China's food needs also suggest a spectacular increase in demand for grain. The fact that no Chinese meal worthy of the name is conceived without soy is also making Brazil's fortune. Beijing steak bars are, for their part, increasing the price of beef, also making Argentina happy. Conversely, the tragedy of coffee and cocoa is due to the fact that to this day the Chinese do not consume them. China's decisive influence will not be limited to raw materials. It will also become essential in another area, located at the other extreme of the arc that economies are traveling: that of immaterial goods, through what Izraelewicz calls "the war of standards". Through the choices it will make in the coming years in terms of IT, GMOs or energy, China will shape the standards. First of all in terms of GMOs. The Europeans were not far from having discouraged research in this area, so reluctant are their consumers. China thinks quite differently. The Chinese had readily adopted corn, which came from America in the 16th century, as a replacement for millet. They do not seem to have any qualms about buying genetically modified American corn today. China is already boasting about its success in discovering the rice genome. It is investing in genetically modified cotton and has delighted the Monsanto company by opening its doors to genetically modified soy (again). The consequences of such decisions are considerable. For better or for worse, they are making research that would otherwise not have seen the light of day solvent. 60 MILLION PIANISTS In a more ecologically correct manner, China is also very interested in research into hydrogen, which could offer a substitute for oil. It could thus sign the decline of the industrial complex built around the internal combustion engine sooner than expected. In the IT field, Microsoft probably lost a decisive battle the day Beijing chose Linux, the free software, rather than Windows to equip its computers. The Asianux version, which the company Redflag Software ("red flag software") is developing, could prove to be a much more serious danger for Microsoft than the admonitions of American or European competition policy officials. Beyond the weight that these decisions will have on the axes of global research in the coming years, the major fact of the 21st century could be due much more simply to the fact that China will itself produce a considerable number of researchers. The production of new ideas, of works of the mind, is an activity that is by its very nature immediately international. The nationality of the person who finds the vaccine against AIDS matters little: he will produce a global good for all. In a related field, artistic production, China already has 60 million pianists. Its chances of giving birth to a new Mozart are equal to this figure in absolute terms, not in proportion to the percentage of pianists in the total population. If every researcher has an equal chance of finding a major idea in their life, then new ideas will be predominantly Chinese, and Indian, at the end of the 21st century. We are obviously not there yet. China remains a country where half the population lives on less than 2 euros per day, and its GDP does not exceed that of France. Many obstacles remain to be overcome, the most important of which will undoubtedly be to manage the explosion of inequalities that Chinese growth is producing. If, however, as the sinologist Pierre Gentelle writes (in the collective work China, peoples and civilizations, published by La Découverte), "the Chinese do not care at all about their final destination", we, the heirs of "Greek and Near Eastern anxiety, which arises from the search for first causes and ultimate ends", cannot help but think about it. And perhaps also think about what it implies as a principle of action for today.

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There will be no flag with the penguin, the symbol of the most famous free software, Linux, on the Paris City Hall. After months of discussions and various reports, the city hall confirmed yesterday in the Paris Council a modest policy in favor of these programs born from the cooperation of thousands of developers around the world: if the city has decided to gradually get rid of some of Microsoft's software (today the majority on the 18,000 workstations in the municipality), it is not on the agenda to replace Windows, Office (word processing, spreadsheets, etc.) and other Explorer (browser) with their "free" equivalents like Linux, OpenOffice or Firefox. For Bill Gates' firm, which had offered up to 60% off its products so as not to lose the Parisian market, this is for the moment a small victory. The Munich coup. The Parisian strategy has, in fact, nothing to do with the "coup" of Munich which announced in 2003 its complete migration from Microsoft software to free software, arousing international attention and concern from Microsoft. "We are not in the fireworks and we did not hold a press conference with Delanoë to announce "we are going free", remarks François Dagnaud, deputy of the city in charge of administration. But we are passing an important stage, with concrete progress, and Munich, despite its display, is not more advanced than us." Independence. Concretely, the Paris Council ratified yesterday the adhesion of the city to Addulact, an association of local authorities pooling certain freely copyable and adaptable software, according to the original design mode of free software. Paris will contribute several of its management programs (tennis lessons, parking, RMI...). In the long term, the calls for tenders will put Microsoft in competition with free software to guarantee "the independence of the computer system". This very progressive and discreet strategy upsets those in the majority who were hoping for a little more ambition. "It's hard to be against it", believes Jérôme Relinger, PC municipal councillor for the 13th arrondissement. But he points out that the city thus finds itself following "the most innovative arrondissements", such as the 13th, already a member of Addulact. And that "no clear signal has been given to announce even a gradual migration of the 18,000 positions" of the Parisian administration. According to him, this timidity is due to the fact that the Parisian executive "has not understood that these apparently technological choices are profound political choices".

## ###ARTICLE\_START### ID:43

He must have been pedaling on the spot for an hour, sweating in his cycling suit. Next to this sporty old man, a dandy, cigarette in mouth, does the same, although at a slower speed, a dilettante in a skirt is content with a turn of the wheel. The watts rise to the rhythm of the cheeks that are turning pink under the effort, a final thrust of the hips and, at 10 p.m., the moon floating above the central square of Linz lights up, thanks to the energy accumulated by the strength of the calves of the hundreds of cyclists who have taken turns all afternoon. A large human battery that has made it possible to light up the square for... an hour. Needless to say, it would have taken a lot of people to supply electricity to the entire Ars Electronica, the oldest electronic arts festival that is taking place until this evening in every corner of the Austrian city, including the most unexpected. On Friday evening, a commando action led by the New Yorkers from the Graffiti Research Lab (1) transformed the tram into a multi-coloured garland. An overexcited crowd threw handfuls of light-emitting diodes (LEDs) attached to batteries and magnets that stuck to the metal carriages. The GRL hacktivists are proposing an extension of street art through new technologies (LED Throwies, electrograf, mobile urban projection): a "graffiti 2.0" to compete with commercial signs and reclaim public space. The approach is "open source", encouraging everyone to make their own tools. A simple and participatory approach in line with the paradoxical title of this edition, "Simplicity - the art of complexity". "Isn't it strange that we are constantly developing new technologies that are supposed to simplify our lives and work, and that in the end we have the impression that everything has become so much more complicated?" asks Gerfried Stocker, director of the festival. For twenty-seven years, he has been examining the impact of technologies on the arts, culture and society, echoing a growing technophobia, and more generally the nostalgia for a simpler life. In this society dominated by technical revolutions and global networks, and drowning in information, a certain discouragement is growing, the desire to let go. Or even pounding a hammer on the computer keyboard in anger, an option also available at the festival with the Sledgehammer Keyboard installation, where you could literally hit your frustrating experiences on a giant latex keyboard connected to a screen (2). “Paradox.” To guide the novice on the complex path to simplicity, the Ars had invited the American guru of digital design, John Maeda, professor at the prestigious Media Lab of MIT (Massachusetts Institute of Technology). The artist, who also presented his soothing abstract digital paintings, Nature, has just released a book, The Laws of Simplicity, compiling his observations (3). “We are trapped in this paradox, wanting something that is easy to use, but that does every complex thing imaginable.” His first commandment is “reduce.” A recipe that has been successfully applied by the iPod and Google, as well as Walter Bender, who initiated the "One laptop per child" project, which aims to design a robust and inexpensive computer (less than $100), but equipped with all the essential functions in order to equip the billion school-age children in developing countries. "The goal is not to eliminate the complexity of the world, but to create a tool that allows us to confront it more simply," he noted during the symposium. Complexity is often a question of point of view. In the basement of the Brucknerhaus, it does not seem to put off the young people who come to participate in the various workshops, handling the soldering iron, electronic components and computer code to create interactive musical instruments or program software for mobile phones. "We need to constantly update our knowledge. The "Do it yourself" philosophy, inherited from hacker culture, is spreading across the Internet and is providing a number of online guides that are as easy to apply as cooking recipes," says workshop organizer David Cuartielles. Simplicity of access was the dominant feature of most of the installations presented at the festival. Visitors could lie down and shiver in Kaffe Mathews' bed, massaged by sound vibrations, creating intense sensations and a unique listening experience. Exonemo combines the ancestral art of folding and the latest geolocation techniques in his poetic Roadmovie. The same purity is found in Paul DeMarinis, who revisits the archaeology of communication through a subtle metaphor in The Messenger, an installation connected to the Internet that is inspired by the electric telegraph. Emails from all four corners of the planet are dissected letter by letter by three fanciful receivers. One consists of 26 chamber pots that spell out the letters in as many different voices, the second of 26 skeletons hanging from gibbets wearing ponchos stamped A to Z and who quiver in a grotesque danse macabre each time a letter is activated. Finally, 26 bottles each containing a metal letter that make bubbles when the current passes. Impossible to reconstruct or understand the message transmitted that comes to die here. An ironic reference to the thousands of insignificant messages that have become our daily lot. Goldfish. This unenviable fate is also illustrated by the hysterical installation of the Techart Group, Office Live, which delivers a sarcastic commentary on repetitive office life. A high-tech "domino effect" where the entire production line is automated and activated by... a goldfish. To help festival-goers find peace, Ars Electronica organized a pastoral trip to the sumptuous baroque monastery of St Florian. Between a Japanese archery session, an origami workshop and a concert on a stunning 14-string instrument 10 meters long, the audience gave a rock star welcome to Toshio Iwai, the father of the cult musical game Electroplankton, a digital magician who presented his new optical illusion machine Morphovision (4). (1) www.graffitiresearchlab. com (2) www.taylorhokanson.com (3) www.lawsofsimplicity.com (4) www.nhk.or.jp/strl/ morphovision www.aec.at/en/festival2006

## ###ARTICLE\_START### ID:44

There has been much talk of a revival of the documentary genre in Quebec. Production and distribution structures are multiplying and now offer many opportunities for young filmmakers to measure themselves against reality. Online since September 2003, the Web platform of the Parole Citoyenne project, initiated by the National Film Board of Canada, is certainly the most avant-garde in the genre. Project manager Patricia Bergeron explains the ins and outs of this protean creature, located at the crossroads of video, blog and independent journalism. "In fact, the project recalls the very history of the NFB with the phenomenon of itinerant projectionists who went from village to village, in church basements, to present films and then initiate debates. We do a bit of the same thing with the Internet, which allows us to broadcast films beyond our borders and to involve people," explains the young coordinator, visibly delighted by the reactions that Parole Citoyenne has generated to date. And for good reason. Where can we find short films online that open our eyes to the world, made by young leading documentary filmmakers such as Denys Desjardins, Geneviève Poulette, Henri Bernadet, Eza Paventi and their ilk? Blogs that describe the daily lives of filmmakers who have gone to wear out their soles in Burkina Faso or Spain? Forums where we discuss the social economy and fair tourism vigorously? According to Patricia Bergeron, "we want to focus on social issues. And especially to give space to independent productions." While the young thirty-something admits that the first year was devoted to testing the waters and getting the message across to the next generation that a new distribution opportunity was available to them, 2004 was focused on relaunching a much more dynamic site, whose platform is developed in open source, the code being open to all. "To really be in the spirit of the project where it is not only the films that are citizens but the platform too." - Can we say that citizen engagement is now experienced, among other things, through the practice of video? - Yes, but it is more than that. On the site, we have short films ranging from 30 seconds to 23 minutes, which demonstrate a diversity in the approach and the way of filming. We also have text, audio excerpts and photos. But also the Carnet du citoyen where young bloggers are invited to express themselves. For someone who did not hesitate to travel to India in 1997 to help develop websites and Internet networks, the mandate of this Carnet du citoyen is to encourage independent journalism. "It allows you to integrate different media as well as work from the other side of the world. It also allows Internet users to start a conversation with the blogger, thereby opening up a new space for communication and dialogue." Encouraging committed documentaries means encouraging a certain idea of democracy and social values. At Parole Citoyenne, innovative thinking goes so far as to offer non-exclusive broadcast licenses - "we want to show the film but we also want it to be able to show elsewhere" - and to propose subjects that touch on both the major issues and the margins of our society. With an authentic perspective, which does not forget that the world is vast. "We advocate openness to the world but also openness to other images. We want to show things that we don't normally see. Why? Because we often have the same information and the same way of looking at the news, imposed by the mainstream media. I think that we have the right as citizens - and also as public broadcasters - to show different images and give them back to people." For all fans of Gilles Groulx, Chris Marker and other great documentary filmmakers who have thought about our world through the camera, as well as for those interested in the marriage of digital video, field journalism, photography and more, don't miss the workshop that Patricia Bergeron is giving tonight - it's promising. We're going to the Alyne-Lebel room (310, boul. Langelier) for a 5 to 7 format as part of the 2005 meetings of the Conseil de la culture des régions de Québec et Chaudière-Appalaches. Admission is free.

## ###ARTICLE\_START### ID:45

Every week, "lemonde.fr" offers readers of "Le Monde des livres" a visit to a website dedicated to literature. "LA REVUE des ressources is freely, free of charge and fully consultable on the net: it offers a single issue that gradually expands, a work in progress where new contributions from authors chosen for their relevance, creativity or sensitivity are aggregated, who can thus develop their work both over time and in space." We are very quickly seduced by the idea of this journal with a single issue that sediments; the creators of the site, Robin Hunzinger and Bernard Gauthier, also claim this open text aspect, as in open source, where the computer community continually enriches software. The site is remarkably designed and offers a large number of sections (travel diaries, literary creation, the collective of resources, reviews and interviews, file, ideas, images, restitutio and archives). In the critical section, the attempts at ideal libraries are as many definitions by the book, the books, of the actors of this original review as much turned towards hypertext, image or sound as towards the book. On the day of our consultation and before being covered by a new layer of sedimentation, the review offered on its home page a text on Lisbon, another on Elisée Reclus, geographer, author of Man and Earth, and a little gem, coming from who knows where and proposed by the collective of resources: a recording of Richard Brautigan, "Love Poem", whose source is as tasty as the very short poem. From a graphic point of view, the site is rather unornamented apart from this lizard which drags its languor on all the pages and seems to want to settle between the bricks of the literary landscape.

## ###ARTICLE\_START### ID:46

After more than two years of violent controversy, the affair is comical: the European Parliament demanded on Wednesday to start over from scratch the directive on software patents. In other words, to erase one of its votes, a position of the Council, loads of amendments, all against a backdrop of bestial lobbying opposing, among others, Bill Gates, the boss of Microsoft, and programmers sometimes in T-shirts and sneakers. Excesses. Unexpected, this new rebound occurs on a politically heated issue, because it touches on the growing influence of IT in societies and the economic power of high-tech firms. At stake: the introduction or not in Europe of patents on software, as there are on machine tools. Until now, in Europe, software was no more patentable than a cooking recipe. It is, however, possible in the United States, with many grotesque excesses: IBM, for example, obtained a patent on software for managing queues in front of airplane toilets... In 2002, a proposal for a directive from the Commission opening the way to software patents triggered an outcry. Supporters of free software, programs like Linux, designed by independent programmers cooperating via the Internet, fear that giants like Microsoft will sue them. Petitions from economists and researchers are alarmed by the consequences on innovation, and in particular the anti-competitive use that large firms could make of patents to tear down SMEs unable to meet legal costs. Faced with these noisy opponents, the lobbying of large companies like Philips or Microsoft, more muted, is also becoming more pressing: they claim that software patents are essential to them. In September 2003, the European Parliament, which was the co-decision-maker on this subject with the Council, aligned itself with the positions of the anti-patents through amendments. The Greens, the most angry against the text, were soon joined by a coalition of socialists and liberals. In May 2004, surprise: the Council, which brought together the European ministers concerned, removed almost all of the Parliament's amendments from the text, to the satisfaction of the pro-patents. A quagmire. A real mess: the Parliament and the Council, which were supposed to reach a consensus to produce a directive, found themselves in direct opposition. The arrival of the ten new members of the European Union in June definitively transformed the issue into a quagmire: three times, the ministers meeting in council failed to ratify the pro-patent position of May, in particular because Poland balked. It was to get out of this situation that the European Parliament's Legal Affairs Committee proposed yesterday to start all over again from scratch. In any case, it is up to the Commission to decide whether to follow Parliament's suggestion. Or whether to get out the forceps and continue. In both cases, a lot of aspirin will be needed.

## ###ARTICLE\_START### ID:47

Porto Alegre special envoy A great vintage, far from the predicted or feared decline. The 2005 edition of the World Social Forum (WSF) which ended yesterday is, by far, the most accomplished, the most constructive. For five days, a strange puzzle was made, unmade, remade along a global social territory. A lab full of energy, a workshop of small chemists of an alterworld still dotted. The test tube was fed by bioconstruction, free software, ethical consumption. All via total self-organization, a "100% horizontal process", says Jeferson Miola, executive director of the WSF. Some 2,000 workshops were organized around proposals coming from below. Dynamiting the myth of often boring megaconferences remixing in a loop "capitalism is bad" or "imperialism, that's the enemy". Newcomers. The mini-agoras of "convergence spaces", the concrete proposals of "resistance", the networking of small local coalitions, the revival of platform agendas (water, debt, human rights) have thus multiplied. An unprecedented "open space", more democratic, less elitist, more cosmopolitan, less white, and many newcomers. Like a camp of 30,000 young people, this time, at the heart of the forum. "There has never been such an amplitude, such historical vitality of social movements, NGOs, in short, of civil society that wants to take its destiny in hand", raves a British Action Aid. Recalling, at a time when Davos is converting to the charity business of the fight against poverty, that "world visions are plural", as a Mexican assures us. In the absence of bridges, the passage of an agenda around "the war against poverty" is always preferable to that of "the war against terrorism"... Is everything going well in the best of alterworlds? The temptation to fix this dynamic, to structure the debate, to convert into a political movement remains. A group of 19 intellectuals, led by Bernard Cassen, honorary president of Attac and co-founder of the WSF, launched an appeal: "The Porto Alegre Manifesto" (1). Twelve proposals intended to take the opposite view of the Washington consensus, pillar of liberal theses. Simple enumeration of alter evidence (no to debt, yes to a tax) or necessary development of a first common base of proposals? Willingness to regain control of a very grassroots WSF or essential response to the calls of the forum's detractors for a draft of a program? "The consensus" in question divides. "This goes against the spirit of the forum," says Brazilian Candido Grzybowski, one of the WSF spokespersons, "one of the 352 ideas" posted on a wall of proposals. Cassen, for his part, dismisses any idea of controversy: "We sign something in a personal capacity. Everyone can take hold of the text, criticize it." The fact remains that this friction reflects the complicated relationship between alters and the shaping of (the) policy. In a feeling of permanent urgency to act. "Davos has been blowing liberal air for thirty-five years without any concrete proposals, let's take the time to articulate the struggles on the ground and not take the risk of stifling them by multiplying the forums," summarizes a member of the international council. Hence the idea of changing the tempo. The organizers are planning a WSF every two years, coming to re-oxygenate in Porto Alegre every four years. In the meantime, in 2006, the WSF should take place in Latin America, Asia and the Arab world. Before investing in Africa in 2007. (1) See ipsterraviva.net

## ###ARTICLE\_START### ID:48

Porto Alegre, Brazil - The plan to switch the world's computers to free software, which has groups like Microsoft very concerned, has been a resounding success at the World Social Forum (WSF) in Porto Alegre, Brazil. Participants at a WSF workshop said the issue of free software - which can be modified by its user, unlike so-called proprietary systems - has implications far beyond the world of computing. Marcelo Branco of the Brazilian collective Softwarelibre said free software running on Linux or Freedows (a system developed in Brazil) is less expensive and therefore a tool for democratizing Internet access for poor countries like Brazil, "where only 2% of the population owns a computer." In the last two years, Brazil has launched telecenters running on free software, set up in disadvantaged neighborhoods, including 120 in the Sao Paulo metropolitan area, which are already used by 250,000 people.

## ###ARTICLE\_START### ID:49

Porto Alegre special correspondent The next revolution will be digital. "The biggest battle of the 21st century will be the one against the control of technologies by multinationals," says Lawrence Lessig, professor of law at Stanford University (California), founder of Creative Commons, an alternative model to strict copyright (1). On Saturday morning, in the Pensée autonome space, an old dock on the banks of the river transformed into a conference center, more than a thousand young people listen to the debates of the popes of free software. Among them, Gilberto Gil, the Brazilian Minister of Culture. "It is simply a question of freeing ourselves from the barriers of intellectual property rights and regaining a form of citizenship," summarizes Manuel Castells, Spanish sociologist, author of The Networked Society (2). The fight for free software, which allows copying, distribution, and use without authorization, is in full swing. On one side, the culture industry (but not only that, also those of agriculture, health, etc.), which "wants to keep a tight leash" on the "dissemination of knowledge". On the other side, the proponents of a global "digital" public good, who see copyright as an obstacle to cultural, social or health development. Or educational: "Free software, on the contrary, facilitates the transmission of knowledge in poor and remote communities", believes Gilberto Gil, defender of "an alliance in progress" between designers of free software and anti-poverty activists. Should we, however, abolish intellectual property? For Lessig, patents must exist, but be "light". We must, he says, start by "desacralizing" them, in the name of a "necessary rebalancing". He reminds us: "By locking down intellectual property rights, the government is also locking down the flow of knowledge. He continues to hinder the fight against AIDS via generic drugs by multiplying bilateral agreements with China or Morocco, texts that are more restrictive than those existing at the World Trade Organization." "Control of lives." For the most radical, we should go further. Patents should on the contrary be "abolished", because they "control lives", insists John Perry Barlow: "They are totalitarian and potentially leave the right to companies to own air and water, health, despite obscene profits." Barlow, lyricist for the Grateful Dead, a hippie group popularized by throwing cassettes into the audience, has converted to defending "pirates" using free music exchange sites, with his Electronic Frontier Foundation. However, the two icons of the defense of "collective uses" against the record industry manage to find each other, notably on the back of the United States. "For a century, the United States relied on patents to develop, before making them their credo once they became the world's leading power," analyzes Lessig. The cultural industry accuses pirates of plundering its coffers. "But who benefits from this, asks John Perry Barlow, the creators or the record industry? What leads to the standardization of music, peer-to-peer exchanges or the strategy of evicting supposedly unprofitable groups?" And then there is paid downloading, imperfect, limited. "When you go to the iTunes Music Store in the United States, you only have thirty old Gilberto Gil songs!" says Lessig. For the Brazilian Minister of Culture, precisely, faced with giants like Microsoft that alienate all freedom of choice, "we must return, via free software, to the Internet, a space for creativity and innovation, exchange and free of charge." Brazil wants to be at the forefront of the fight. Lula plans to replace Microsoft's Windows operating system with Linux in 300,000 federal computers and 200,000 public schools. The investment cost: nearly $6 billion over five years. A breach. Hence the fears of Microsoft and the big traditional software companies. "Currently, the government pays $1.2 billion each year in software licenses, more than it spends on its Zero Hunger project," assures John Perry Barlow. "Microsoft denounces the Brazilian projects by saying that free software will cost more, but that's not true," says Lawrence Lessig. "And even if that were true, the freedom to be a player in new technologies is priceless." Are new democratized technologies opening a breach in this commodification of the world? Barlow is convinced: "The economy of the future will not be based on possession but on relationships. On sharing and solidarity." But it's not a done deal yet. Gilberto Gil knows this well: "It will take several revolutions to win this battle." (1) Altermodel allowing any author to distribute their works online, on condition that the Internet user respects certain conditions... According to Lessig, more than 5 million authors have granted all or part of their rights to it. (2) Ed. Fayard.

## ###ARTICLE\_START### ID:50

Porto Alegre special correspondent Return of basism. Enough with (not always) democratic centralism. The radical choice of self-organization of the fifth edition of the WSF puts a handkerchief on the ambitions of those who dreamed of making it a launching pad for a new International, socialist or otherwise. Never since its creation has the WSF devoted so much space to new "pragmatic utopias", from free software against patents, to environmental micro-experiments, to the rise of solidarity economies. To the eternal question "what is your concrete program, your practical alternative guide to neoliberalism?" to which the WSF has been referred since its creation, the answer is: there is none. Or rather: there is some everywhere. All you have to do is draw from the multitude acting against the empire, as Toni Negri and Michael Hardt, anarchist-libertarian theorists, would say. Generation. What is therefore emerging is a non-governmental diplomacy, an expansion to new actors (such as the massive Catholic presence), and an amplification of the targeting of campaigns (debt, education, health, environment). For the moment, assures an American activist, if the "alter-globalization ideas are advancing, their political translations are stagnating." A question of "historical perspective," replies Cândido Grzybowski, one of the promoters of the WSF: "Bringing together in four years human beings who think that another world is possible is already enormous. Concrete changes take a generation to happen, to see ideas live or die. For the moment, we are weaving convergences and preserving divergences." Rather than giving birth to a hollow pseudo-common program, a lowest common denominator that would satisfy no one, there is the desire, recalls a neo-radical activist, to "recreate, to invent actions. To do rather than to say, far from the grand speeches of pseudo-thinkers of the movement." Is this a sign of running out of steam? "On the contrary!" assures a Greenpeace activist. We have never had so much weight in the debates, so much exchange between NGOs, built bridges between debt, climate or development aid. Everything comes together." This does not make the WSF a less political place, because NGOs have never been so political. But their politics do not necessarily go through the outlet of traditional parties. Even institutionalized, even "grand-messe-ized", the WSF remains a UFO. A time for exchanging experiences in the field, confronting ideas or building campaigns in all directions. The temptation of a change of pace every two years, just to take stock, has fallen by the wayside. There is no question of leaving Davos with a monopoly on the narration of a changing world. Relocation. The International Council (which is, in caricature, to the ESF what the Security Council is to the UN) could have, in the process, kept it simple. Keep an edition in Porto Alegre every other year, to better deepen, develop practices and synthesize them, in a sort of library of alternative political knowledge. Relocate the following year, as it did in Bombay last year, to better anchor the struggles on the continents. But alternative geopolitics, a victim of its success, prefers or has no other choice than to make it complicated. The 2006 WSF will therefore be decentralized in... three places: Venezuela, Morocco and South Korea. And the 2007 edition will land in Africa. But where? Kenya, South Africa and Morocco are on the breach.

## ###ARTICLE\_START### ID:51

As the world's leaders prepare once again to socialize in Davos, many of them are putting the finishing touches to their agendas. A telling detail: while in previous years, heads of state were rushing to meet Microsoft CEO Bill Gates, this year, it is Gates who is waiting and requesting an urgent meeting with Brazilian President Luis Inacio da Silva to discuss "worrying" issues. This move should be seen as a reaction to the Brazilian government's announcement that it would migrate a large part of its administration to free software. Moreover, this trend seems to be repeating itself in several South American democracies. Indeed, in a Venezuela in full turmoil, President Hugo Chavez has ordered that the administration migrate to free software. In a presidential decree issued at the end of December 2004, Hugo Chavez outlined the broad outlines of this migration: within three months, the Ministry of Science and Technology must present him with a plan to ensure a harmonious migration to "free software". During these three months, all ministries are asked to define their current and future needs, to set up a training plan for free software and to indicate how they will carry out their migration. Ingenious solution For South American leaders, switching their administration to free software is an ingenious solution to free themselves from their technological dependence on industrialized countries (by which I mean the United States) and to save significant sums of money that would normally be sent to Silicon Valley. Some of these ministries have not waited for President Chavez's decree to jump on the free software bandwagon. Last year, the Ministry of Education and Sports was able to save more than two million dollars by implementing free software. The payroll service, network management, web services and everything related to the administrative apparatus of this ministry are now free. One of the side benefits of this migration? Since this ministry made the leap to free, the problems related to viruses, worms and other problems that our administrations here are familiar with are now a thing of the past. And what about the advances in the field of electronic governance? These countries are able to give us valuable lessons. A connected Brazil How important it is for monitoring groups in "e-governance", free software, social software development and especially, intellectual property and patents to keep a close eye on everything that is currently happening in South America. Stop paying all your attention to the United States or the mother country. For example, it is good to know that the most promising and dynamic examples of online government in terms of best practices, and particularly everything related to citizen participation, are currently taking place in Brazil. Surprised? Not necessarily when you know that Brazil is currently the 8th most connected nation in the world. And making the promotion and appropriation of the Internet by citizens an important issue, the Brazilian government is transforming its relations with citizens. Putting its administrative services online has greatly improved the often stormy relations that the Brazilian government had with its Brazilian population, because this online access is most of the time accompanied by greater transparency. An interesting detail that was revealed to me by an acquaintance who worked in Brazil, the arrival of "social platforms" such as Friendster, Orkut and others have been catalysts in this appropriation, Brazilian Internet users are now the champions of the use of these tools. Citizen participation, we said? The Brazilian government championed electronic voting during the legislative elections. This initiative allowed many citizens living in regions far from major urban centers to avoid long trips in order to express their choice. And this is just one example among hundreds of others... Engine of advancement Although it is not as advanced as Brazil in terms of e-government, the Venezuelan government is recovering in a nice way by being the champion in all categories of use of free software and creation of "e-governance" tools. Unfortunately, it seems that the Northern hemisphere looks down on the developments in this area made by Venezuela as well as other countries in the Southern hemisphere. For example, the first World Forum on Free Technologies opened last November without the major industrialized countries being truly represented. However, many tools were presented that could be reused within a public administration. Similarly, several workshops covered issues of the utmost importance, such as the implementation of free and open standards within an administration, training, and practical means to promote citizen participation. And Venezuela and Brazil are just two countries among others in South America where examples of good practices can be found. Argentina is a hotbed of excellent free software developers. Ironically, and although it is not part of South America, Cuba has fallen considerably behind in adopting free platforms. For example, the University of the Future set up by Fidel Castro runs on proprietary software, an irony when you know how allergic Cuba, and particularly its president, are to patents of any kind. However, given the special relationship between Venezuela and Cuba, and the mobilization of the young people of the University of the Future towards free software and a revision of the concepts of intellectual property, Cuba should not delay in jumping in turn into this revolution called to shake the planet over the next 25 years. mdumais@ledevoir.com

## ###ARTICLE\_START### ID:52

At the beginning of this year, European technology has been rather celebrated. The arrival of the Huygens probe on Titan, the launch of the Airbus A 380 are all exploits that do not need to make the Old Continent feel self-conscious about America. In Toulouse, Jacques Chirac praised the "reality" of "the Europe of major industrial and scientific projects", also citing the Galileo satellite network, an alternative to the American GPS and the future Iter experimental nuclear reactor. And yet, the observation of the recent Beffa report on the "worrying" performance of French industry in the technological competition applies to Europe. A study carried out for the Commission on "The Integration of European Industry into the International Division of Labor" in July assured: after floor coverings, "the largest increase in European exports between 1995 and 2002 was pork and poultry fat. Exports of ships... destined for destruction are also growing strongly", the report noted. Pascal Lamy, at the time European Commissioner for Trade, would have been very shocked by this alarming observation. Not enough to approach with serenity what constitutes the nerve of the war of economic advance, that is to say the mastery of tomorrow's technologies: those of information, dear to the knowledge society desired in the Lisbon strategy; biotechnologies; nanotechnologies (manipulation of matter at the atomic scale); environmental technologies and energy... "It is clear that in many sectors, it is the one who sets the technological standard who wins the market", underlines Lionel Fontagné, director of CEPII and also one of the authors of the report on the international division of labor. And he cites the global success of Microsoft or the fine European challenge that Galileo represents. "However, in the field of standards, the United States, but also the Japanese and even more the Europeans, are on the verge of being overtaken. Tomorrow, it will be Asia, particularly China, that will set the standards, and in many sectors, such as telecommunications or broadcasting," he continues. Hence the importance for European companies to have research centres in these markets. How did Europe, which still has many highly qualified researchers, get to this point? The European and primarily French model based on large companies where strong skills are accumulated, like our leaders in aeronautics, space, steel or the food industry, is not, according to Fontagné, adapted to competition in new sectors. According to him, the model is one of "disruption" and "creative destruction", with a multitude of innovative SMEs, some of which manage to grow quickly. Like the American, obviously Asian and even German models. The French model, with the knock-on effect of large companies on smaller ones, is not to be rejected. Grégoire Postel-Vinay, head of the Observatory of Industrial Strategies at the French Ministry of Finance, explains Europe's loss of momentum by the very high concentration of Community research programs on upstream research (laboratories). "Europe does not sufficiently promote the application of its knowledge on the markets," he says. According to him, the continent must take greater account of the research efforts of its competitors (United States, China, Japan, India). He is banking on the preparation of the 7th Community program for research and technological development, which should limit the tendency to scatter and fragment forces. Without prejudice to projects such as Eureka, where a few European heavyweights pool their resources and national funding. Antoine Gosset-Grainville, partner in the Brussels office of the firm Gide Loyrette Nouel, recommends for his part an intensification of the fight against counterfeiting and intellectual plundering, with in particular the establishment, for the moment in vain, of a European patent. He is especially calling for a relaxation of Community rules on aid for research and innovation. Brussels is very strict on anything that might resemble a disguise of state aid, contrary to internal competition. Furthermore, it is the only region to impose such strict rules on this type of aid. And he concludes: "The World Trade Organization (WTO), which limits itself to regulating export aid, does not ask for so much." M.-LB

## ###ARTICLE\_START### ID:53

Author of a thesis in economics on the controversy over the patentability of the human genome, Antoine Schoen (\*) is a research fellow at the Observatory of Science and Technology. LE FIGARO ECONOMY. - In substance, is there a parallel between patents on genes and patents on software? Antoine SCHOEN. - Yes. For patents on European software as for those on the genome, the aim of the promoters of the directives is to extend the scope of the patent to cover new technical areas. Patents protect new objects as they appear. In this case, it is a question of protecting dematerialized objects, information: lines of code for software or DNA sequences for genes. DNA taken in its raw form constitutes genetic information. In software, it is also a question of protecting information. In form, as in substance, the two cases are therefore very similar. Is the software patent, granted in Japan or the United States, necessary in Europe? Defenders of the patent explain that without it, innovation and research are doomed. There is a degree of intellectual dishonesty in this argument, because it only paints part of the picture. In addition to its incentive effect, the patent also hinders the diffusion of innovation by creating legal monopolies. There are the terms of a dilemma here. The French economist André Gorsz considers that the patent leads to an artificial scarcity of resources that allows the creation of rents. And in the world of software? The model that seems to be prevailing is that of proprietary software, of which Microsoft is one of the most fervent defenders, in the face of "free" software. The proprietary model is dominant in microcomputing. But for Web servers, Apache has a preponderant position with programs created with the Open Software Foundation, free software. There can therefore be different points of economic equilibrium, depending on the markets considered. Basically, the patent is, for a leader, a way to protect its technological advantage. Does the patent strengthen the largest companies? Large firms have more means to protect themselves and to bear the costs of litigation. Interview by Marc Cherki

## ###ARTICLE\_START### ID:54

Faced with a stagnation in the number of their members and the reluctance of their supporters to COMMIT THEMSELVES in the long term, the PS, the UDF and the UMP are implementing new statuses for partner, associate or virtual activists. At the head of the Chirac party since November 2004, Nicolas Sarkozy has set AMBITIOUS OBJECTIVES: to double the number of members by September, to reach 200,000 members. In the Socialist Party, supporters are invited to become "PROJECT MEMBERS" for the time being to participate in the development of the party's program for 2007. In the UDF, François Bayrou proposes creating an "INTERNET FEDERATION". Interviewed by Le Monde, sociologist Anne Muxel believes that "these new procedures show that the fragility of the partisan link is now ratified by the political forces". THE PARTIES are recruiting, in new forms. Faced with stagnation, or even a reduction in the number of their members and the reluctance of the French to get involved, three of the main political parties - the PS, the UMP and the UDF - simultaneously created new activist statuses. Two years before the major elections of 2007, in the hope of attracting their supporters and thus broadening their audience, they invented, so to speak, the political fixed-term contract. At the PS, the party's number three, François Rebsamen, national secretary in charge of federations, has been working on it for over a year. On Tuesday, January 25, in front of the PS officials gathered in the national office, he is expected to present the reform of "members of the project", supported on January 30 by the launch of a campaign. "Don't let others decide for you the future of France, become members of the project", the posters will proclaim. All sympathetic voters, but also associations, will be able to join the PS in order to participate in the development of its program for 2007. For a fee of between 5 and 10 euros, according to the scale that the national office will set, very far in any case from the traditional contribution proportional to income, these new members will be able to register directly at the party headquarters, via the Internet and even by going through a toll-free number. They will then receive a membership card bearing the fist and the rose and a new logo, that of the project. From there, they will receive the party's publications, in particular the Hebdo des socialistes. They will be able to participate in the workshops and debates that the PS intends to organize by theme (health, education, culture, etc.) and vote at the conventions intended to validate the socialist program as it goes along, or even, according to Mr. Rebsamen's wish, at its final adoption. They will not, however, be attached to a territorial structure, the section, which constitutes the basic militant unit. They will not be able to vote at orientation congresses, nor for the designation of candidates for elections. "A 'light' commitment," observes Henri Rey, researcher at the Centre d'étude de la vie politique française (Cevipof), which, according to him, reflects "the PS's anxiety faced with an ever-increasing difference between the number of its members and its electoral strength, which is unequal at different times." The scenario developed by Mr. Rebsamen breaks with the practices of left-wing activism. "Before, there was filtering, the concern to verify the sincerity of membership," explains Mr. Rey. By being less demanding, we can have more members, but that will pose the problem of the "reward" of activism" as it is still conceived. "For twenty years, campaigns have followed one another without us being able to stabilize our members," emphasizes Mr. Rebsamen. The company sections are moribund And two years after the wave of membership that followed April 21, 2002, the PS has lost some 10,000 members. The party hopes that after the project, the new members will confirm their commitment by becoming, in the words of the Nièvre MP Gaëtan Gorce, "the members of alternation." This reform, which corresponds to the commitment made by François Hollande in May 2003, at the Dijon congress, to strengthen the PS, is accompanied by a complementary operation. Under the code name "Rosam" (for OpenSource Directory of members and activists), it modifies the membership circuit between the federation and the national level and provides for the complete disappearance of the traditional stamp. At the UMP, Nicolas Sarkozy has set an ambitious goal: to double the number of party members by September, to reach the 200,000 mark, in order to be able to support the comparison with the major right-wing parties in Europe, such as the Spanish Popular Party or the British Conservative Party. According to its own figures, the party had 100,000 members in September 2004, the date on which Mr. Sarkozy announced his candidacy for the presidency of the majority party. Since then, it has apparently regained 40,000 members. BROADENING ITS BASE To maintain this trend, Mr. Sarkozy has promised more democratic practices, such as having the UMP candidate elected by the activists in Paris and in all the cities where the party would not have an incumbent, even mentioning the possibility of extending this method to the designation of the candidate for the 2007 presidential election. But the UMP is also seeking to broaden its base. A study conducted by CSA in November 2002 among UMP supporters revealed significant similarities with the profile of supporters of the former RPR: while gender parity has been achieved, these supporters are mainly recruited from the oldest sections of the population (30% over 65). To change these parameters, the UMP wants to recruit from socio-professional circles that remain closed to it, or even hostile, such as teachers or cultural activities. To achieve this, it is undertaking a two-stage approach. First, by creating a new status for activists called "partner-members". They will not pay any contributions, but will be invited to collaborate in internal work and debates, in defining political orientations, in particular through questionnaires that will be sent to them. Then, with this file, which will be added to that of traditional members and donors, the UMP will have a study carried out by the Ipsos institute in order to determine precisely the categories of population where it should focus its efforts. "We are putting the tools in place," summarizes a party leader. "We will determine the targets after." The UDF centrists will take advantage of their congress, Saturday January 22 and Sunday 23, to also create a new status: "associated activists." The latter will be able to participate in the debates and in the development of the party program. François Bayrou claims paternity of this approach calling on non-party members. This is how General Philippe Morillon, journalist Jean-Marie Cavada, conductor Claire Gibault and prefect Christian Blanc were invested in the European or legislative elections. Furthermore, a UDF "Internet federation", which will have the same status as a departmental federation, is to be created shortly.

## ###ARTICLE\_START### ID:55

Europe is not playing on a level playing field against the United States and Japan, which protect software with patents. On the Old Continent, the doctrine is still in limbo. Since the European Council of Ministers last May, which opened the door to the "patentability" of software, the pressure between the pro- and anti-patents has not ceased. Michel Rocard, president of the Culture Committee of the European Parliament, does not hesitate to speak of "cannonades of emails" from the lobbies. Although rapporteur of the directive, the former Prime Minister ranks among the anti-patents. According to him, the legal recognition of software risks "restricting innovation" and "strengthening existing large groups" that have the means to file patents. And this, "to the detriment of small software companies" that do not have the possibility and that develop their innovations from software patented by multinationals. In short, the United States, through giants like Microsoft or Adobe, would be favored compared to a Europe characterized by a multitude of small software companies. "I will fight to preserve the bush of the software industry," continues Michel Rocard before denouncing the "bullshit!" of the pro-patents. The latter rightly argue that patents are a condition for enabling innovation, both for multinationals and for small creators. For Thaïma Samman, director of legal and public affairs at Microsoft France, "it is logical that those who invest can benefit from the fruits of their investments." One thing is certain: the draft directive is not unanimous within Europe. In May, the qualified majority within the Member States was narrowly obtained: Spain voted against the text; Austria and Italy abstained. On 21 December, Poland, then a new member of the Union, obtained the withdrawal of the project from the agenda of the Council of Ministers... We will therefore have to wait for the adoption, in the coming days, of a common position. The European Parliament will then be able to give its blessing within the following three months. The supporters of the directive are seeking to calm concerns. The main thing, according to them, will be to limit patents to inventions that make a "technical contribution". For example: "An invention that uses software in a new and non-obvious way to control the braking of a car may be patented, while office automation or financial data processing software will not be eligible for a patent, due to a lack of specific technical character", they specify at the French Ministry of Industry. However, experience shows that the line between theory and practice is thin. In the current state of European law, which dates from 1978, computer programs "as such" cannot be patented (Article 52 of the Munich Convention). Since then, however, more than 30,000 software-related patents have been issued in Europe! "We are reaching absurd situations since it can happen that certain companies apply for a patent from the European Patent Office when it would be refused under French law," explains Christophe Caron, professor of law at the University of Paris XII. Clearly, the need to harmonize national rights for software patents seems to be imposed on the European legislator... But this "patentability" has a cost. A study conducted in the United States showed that software patents have already captured around 10% of companies' R&D budgets for the benefit of legal fees. This proportion could go up to 35%. The director of legal affairs at Microsoft France is thus calling for "a real reflection" on the cost of filing a patent and the procedure for examining files. François Pellegrini, vice-president of the Bordeaux Association of Free Software Users (Abul), is taking advantage of this to turn a blind eye. "As long as European companies are protected from patents, they will benefit from a competitive advantage." Marie Dewavrin

## ###ARTICLE\_START### ID:56

GRRRR introduces himself laconically as "a guy from Switzerland". We know little about him, except from his drawings which tell us that he is angry with video players and guys alone in their cars who don't pick him up when he hitchhikes, that he is wary of mobile phones since he read that the secret services had tried to blow up terrorists with a bomb hidden in their mobile, that he sometimes hangs around in the dodgy neighborhoods of Zurich, like Langstrass, where drug dealing, the sex business and police harassment are part of the landscape. A gloomy atmosphere that he perfectly conveys in his sketches scratched in pen on the spot with documentary realism. "All my drawings are done on the spot, I like to travel and draw. GRRRR.net is a way of describing to people what I see, how I perceive my environment and possibly asking a few questions", he explains. A critical look. GRRRR has sketched London, New York, Zurich, Berlin, Paris, but also Kuala Lumpur, Cairo, Karachi. From the Pakistani capital, he remembers the billboards and the unconscious irony conveyed by their slogans, like this ad praising the longevity of a pencil: "50 years, three generations and a pencil". Or this other one for mineral water: "Water is the source of all life". Advertising hype, energy waste, overconsumption, GRRRR conveys his critical view of society in a few strokes of the pencil. "Sometimes, I want to document a specific situation or a specific place. Other times, my choices are more random, I just open my eyes wide." The city rat feels close to squatters, hip-hop culture and "good old freaks": "I like neighborhoods where there is life in the streets, full of sounds and movements, where classes and cultures mix and where all the buildings are not alike. The new cubes made entirely of glass and steel transform working-class neighborhoods into ghettos for the rich, but there is graffiti and writing on the walls. For me, they are like flowers." Mixed worlds. GRRRR represents the urban environment with great finesse, "as people move too quickly for me to have time to draw them, most of the time, I just document their traces." If his work always begins on paper or on walls, where he paints large monochrome frescoes, GRRRR has also very quickly invested in the Web where he cleverly stages his creations. "I like both mediums, ink and digital. In my last exhibitions, I started to mix the two worlds, by combining computer screens with drawings on paper and walls," says the artist. At first, he puts his still images online on HTML pages. Since then, he has multiplied experiments, making the site a sort of webcomic, alternating animated images, those that are scrolled by moving the browser's elevator, panoramic views with Quicktime VR, multiple windows, short films, words to click, interactive maps and even experiments with Processing, an open-source programming language, all while retaining this charming low-tech touch.

## ###ARTICLE\_START### ID:57

What if the world's simplest computer really existed? A cheap and childishly simple product that would allow beginners, the elderly and those reluctant to use computers to be able to type a letter, send an e-mail or book a train ticket online as if they were using a Minitel... This is the challenge of the Ordissimo, a computer entirely designed to adapt to a whole section of the population that has remained on the fringes of the computer revolution. "The idea came to us when we noticed that a large number of people, starting with our parents, did not know how to or did not want to use a computer even though they needed one," explains Christophe Berly, sales director of Substantiel, the French company that created the Ordissimo. The first effort focused on the keyboard. No superfluous keys or multifunction keys. Each element of the keyboard corresponds to a unique character, whether it is the period, the at sign or the euro symbol. Others have been added to ensure the zoom in and out functions to enlarge or reduce the screen display, or copy and paste operations. A "Home" key even allows the lost user to return to the computer's main menu. As soon as you turn on the Ordissimo, a color home page presents all the possible operations. You can browse the Internet, send and receive e-mail messages, write texts and create tables or spreadsheets, display images and videos or listen to the radio and audio files. A "documents" space completes the whole to open, delete or move different files. All manipulations are done with a simple click of the mouse, and indifferently on the right button or the left button. Click on "Write a text" and you will launch the word processor, which is extremely simple to use: just click on a button to obtain larger or smaller characters, bold, italic, centered or adjusted. Just as easy is the e-mail software: click on a tab to compose a new message, to display the messages received or sent and to access the address book. The Web browser, on the other hand, allows you to enter not only an Internet address, but also a keyword or the name of a company or service in the address box. In this case, the corresponding sites (found by Google) appear: all that remains is to click on one of them, generally the first one, to access the desired page. Finally, the spreadsheet can be used both in a basic way, to create a table or perform calculations, or by exploiting its large number of functions. To achieve this feat, the designers of the Ordissimo chose not to use Windows or Mac OS, but rather Linux, which is completely invisible, accompanied by various free software such as Firefox, Thunderbird and OpenOffice.org, fully compatible with the most widespread files and in particular those of Microsoft. All of this software has been extensively adapted and optimized for the needs of the product. "In total, a team of 5 people worked on the development of the Ordissimo for over a year," emphasizes Christophe Berly. In addition to ergonomics, this team also took care of the security of its product: no risk of mishandling, hacking or virus attack. The operating system is read-only and it is impossible to add software. What could be one of the limitations of this computer turns out to be, in the long term, a guarantee of peace of mind for its users. Which does not mean that the Ordissimo cannot evolve: an update option allows you to remotely install extensions or new functions to the system. To top it all off, the colorful case, the size of a toaster, is completely soundproof and accepts several types of peripherals, including printers, scanners or USB keys. Two configurations are offered on the manufacturer's website (1): one for less than 400 euros with keyboard and mouse, and the other for 770 euros with screen, printer, mouse and keyboard. "We also offer free assistance with subscribing to an Internet subscription, which we configure and, for 50 euros, home installation of the computer in several large cities," adds Christophe Berly. The only downside: the device does not accept just any printer or burner. It is better to find out before buying a device that will not work... www.ordissimo.com Didier Sanz

## ###ARTICLE\_START### ID:58

THE BATTLE OF FREE SOFTWARE, by Perline and Thierry Noisette While computing is spreading in all sectors, the book presents a synthesis on free software (i.e. free and open programs). After an introduction on the history and terminology of this alternative computing - some would say ideological -, the authors pose the political and economic questions of its manufacture and diffusion. This essay, documented but also very committed, reveals the economic and ethical problems raised by the application of the principles of intellectual property to new immaterial works. . EVOLUTIONIST THEORY OF FREEDOM, by Daniel C. Dennett Free will as "complex creation of human activity and beliefs". This is the conception that Daniel Dennet, cognitive philosopher, sets out in his book. The author thus places freedom, which is "younger than our species", on the level of other human constructions such as music and money, and he attempts to ground his conception both empirically and intellectually. VISIONS OF MARS, by Olivier de Goursac MARS AS IF YOU WERE THERE! by Guillaume Cannat and Didier Jamet 2004 was an exceptional Martian year. The twin robots Spirit and Opportunity continue to survey the Red Planet, and to unearth signs of the past presence of liquid water. From space, the European satellite Mars Express has joined two other American probes. Two books have drawn on this rich harvest. With its stylish layout, Olivier de Goursac's work leans more towards the pure "beautiful book", while that of Guillaume Cannat and Didier Jamet is closer to the tradition of astronomical atlases: the photographs are put into their geographical context on small Martian globes. Both invite you to get away from it all and contemplate.

## ###ARTICLE\_START### ID:59

Bill Gates sees red everywhere. Those who advocate copyright and patent reform are "communists of a new kind, hiding behind different masks," the founder of Microsoft told the American news site News.com last Wednesday. Masks off! Among the seditious people targeted by Bill Gates are Nobel Prize-winning economist Joseph Stiglitz, as well as many economists and experts of all stripes, from the French Marxist André Gorz to the very liberal English weekly The Economist. Legal guerrilla warfare. And of course the supporters of free software, followers of the pooling of computer code, who have managed to develop successful programs, such as the Linux operating system or the Firefox Web browser, without resorting to the same ultra-restricted access rights used by Microsoft with Windows. They consider intellectual property to be unbalanced in favor of the rights holders, large computer and pharmaceutical firms or major music companies. Among the many criticisms, the patent is accused of favoring large companies capable of paying the lawyers needed to wage a legal guerrilla war. In addition, the increasingly common limitations on private copying - the right previously granted to everyone to copy works for their own private use - are restricting access to culture. "Saddened." According to Bill Gates, these ideologues "want to get rid of the incentives enjoyed by musicians, filmmakers and software creators." The American "is in the wrong era," jokes economist François Lévêque. "People are seeking to adapt and combat the excesses of intellectual property, not to abolish it, as some wanted in the 19th century." In the United States, where communism is discreet, Gates' sally was poorly received. Interviewed by Wired magazine, the director of the Creative Commons association, which promotes a balanced version of copyright, said he was "saddened" by the anathema, recalling that "the Stalinist purges, the Berlin Wall, the tanks in Budapest, that's communism." According to Stanford University law professor Lawrence Lessig, who notably fought against the extension of copyright in the United States, Bill Gates is also making a mistake: he is not a "communist," but a "communist," and therefore a defender of the commons. But for the boss of Microsoft, in both cases, they are dangerous commies.

## ###ARTICLE\_START### ID:60

Last week, the annual consumer electronics trade show, CES (Consumer Electronic Show), was held in Las Vegas. In an interview with the netmag News.Com, Bill Gates, the big boss of Microsoft, made some remarks that were so surprising that they bordered on bad faith. I always believed that the fall of the Berlin Wall had put an end to the Cold War and this bipolar world with the good capitalist on one side and the bad communist on the other. However, it seems that the big boss of Microsoft does not see it that way. If I refer to my text from last week, I would be neither more nor less than a "new" communist of the modern era. In this interview that we encourage you to read and keep preciously, even if it is in English, Bill Gates once again attacked the proponents of free software as well as the visionaries who advocate for a renewal of the concepts of intellectual property. Some of his statements are so outrageous that many, like the renowned American journalist Dan Gillmor, do not hesitate to claim that they are an insult to intelligence. For our part, let's just say it, it's nonsense! No embarrassment If we are to believe the big boss of Microsoft, and this, despite the repeated security alerts, the patches that, too often, are slow to come and a very questionable respect for Internet standards, the Internet Explorer browser would still be the best tool for browsing the Web. Mr. Gates, however, feels no embarrassment in passing over in silence the recommendations of the vast majority of talented Web designers and the most respected journalists in the NTIC environment who strongly encourage Internet users to switch as quickly as possible to the open browser Firefox, and this, for security reasons and not simply to be up to date. Similarly, not a word, however, about the lack of innovation and the virtual halt in the development of its current browser for the last two years. Haughty, Gates even declares that "on our ability to innovate in the browser market, those who underestimated us in the past, can only regret their words today", a direct reference to Netscape. Communists Where Bill Gates pushes the cork a little too far, to the point of being dishonest, is when he attacks those who want to review the current intellectual property system by stating that "those who want to put an end to the various incentives intended for musicians, filmmakers and software developers are modern-day communists". Who said in the community of free software or supporters of intellectual property and patent reform that creators should not be paid for their contributions? Readers of Le Devoir who read this column know this well, even the most fierce supporters of free software (think of Richard Stallman) see no problem in selling free software. Many free software developers live quite comfortably from the fruits of their inventiveness. However, these businessmen and women with a more responsible attitude towards their community have understood that the rights of use on a work must be shared equally between its designer and the user. Indeed, in the current system that recognizes intellectual property, software development is usually linked to the existence of an "owner" who controls the use of the software to the detriment of the rights of users. As long as this link exists, we often have to choose between a proprietary program or no program at all. Fortunately, the arrival of free software calls this choice into question and offers users the opportunity to turn to a system that favors the common good. Local examples There are also many entrepreneurs who traditionally worked only with proprietary tools and who have understood that it would be in their best interest to combine proprietary software and free software in order to enhance their service offering or simply improve it. A local example that comes to mind is that of the company 8D Technologies headed by Isabelle Bettez. Communist, Mrs. Bettez? When we know that 8D is part of Profit magazine's Top 100 Canadian Growth Champions (2002) and that it was included in Deloitte and Touche's Fast 50 (Canada) and Fast 500 (Canada and United States) in 2002, allow us to seriously doubt it. However, for years, 8D Technologies has bet on free software, and its president is cited as an example to follow among her peers. Let's also talk about entrepreneurs here and elsewhere who choose to embrace free software in order to improve their service offering. Communists, what did they say! Let's say instead that this movement towards free software challenges Microsoft's monopoly. This must surely bother these gentlemen at Microsoft to the point of seeing its founder come up with such a load of nonsense. In fact, a software entrepreneur from the Montreal scene recently confided to me that his recent "conversion" to free software had earned him a bitter phone call from a Microsoft representative. Communist! Really? Someone should remind Mr. Gates that communism, like that practiced in the Soviet Union, was a system of centralized control, where all activities were screened by the regime, supposedly for the public good, but in fact for the good of the members of the Communist Party. This communism was a system where the devices allowing copies were closely guarded, to prevent illegal copies. Similarly, the current system of intellectual property exercises central control over the distribution of a program and monitors and threatens copiers in various ways, to prevent them from making illegal copies. As Richard Stallman, the father of the concept of free software, said, "I am working instead to build a system where people are free to decide their own actions; in particular, free to help their neighbor, to modify and improve the tools they use in their daily lives. A system based on voluntary cooperation and decentralization." "So if we are to judge these views by their similarities to Soviet communism, then it is the software owners who are the communists."

## ###ARTICLE\_START### ID:61

As part of the European Forum for Electronic Administration, the Public Web Trophies have just rewarded the best regional council, general council and departmental capital site. An opportunity to take stock of the Web at the service of citizens. Last year, not all regional councils, general councils and departmental capitals had a website. In 2004, this was done. The organizers of the Public Web Trophies therefore reviewed 26 regional sites, 99 departmental sites and 99 city sites. Each was evaluated on a technical level by robots that connected to it periodically to judge the availability of the sites. But the functional analysis remains the responsibility of humans, including Yannick Landais of Artesi Ile-de-France (Regional Agency for Technology and the Information Society) and Marie-Lise Simon of Ardesi Midi-Pyrénées (Regional Agency for the Development of the Information Society). These two associations had already set up a reading grid to evaluate public sites. "We distinguish five categories of sites," explains Yannick Landais. This ranges from the first-generation showcase site, which is static by nature, to the portal site whose updating is based on a strategy of sharing information between all stakeholders." To take the case of the municipalities of Ile-de-France that he knows best, Yannick Landais mentions two periods: "In 2002-2003, we saw a 50% increase in the number of sites to the detriment of quality. We noted that the communities did not have specifications and did not know who to entrust the development to. We defined a standard specification that was downloaded 3,000 times and we certified the service providers." In 2003-2004, the number of sites in Ile-de-France increased little, but the quality did make a leap. "The aim of the trophies is not simply to designate the best," concludes Yannick Landais. "We seek to encourage others to go and see what their neighbours are doing and to draw inspiration from their good practices." And the best sites are... Since its creation in 1999, the Centre region site has undergone several logical developments: a simple static site at the beginning, it then acquired an architecture allowing better updating of content to arrive at the current version with its interactive tools (newsletters, registration forms, downloadable documents, etc.). "We are still below what is possible," humbly admits Marc Le Bris, the region's information systems director. The site is tending towards even more interactivity with, for example, a downloadable guide to subsidies or a staff monitoring system for the region's 180 headmasters. "In January 2005, we moved to the dematerialization of public purchases, like everyone else. We will also offer the 20,000 service providers and grant recipients in the region the opportunity to track their files and payments online," announces Marc Le Bris. Additional services that should boost the steadily increasing traffic. For the time being: more than 350,000 connections and 3.5 million pages viewed this year. www.regioncentre.fr How does Pierre-Alain Ragueneau, director of communications and information systems for the Loiret general council, explain the trophy received by his site? "It is integrated into our communications production. It functions as a media portal with thematic channels and very regularly updated articles." The aim of this site is not only to report on the actions of the general council but also to be a territorial site with sections on history or outings. An editor-in-chief and a webmaster keep it alive. But each department concerned is responsible for its section. Thus, human resources handles job offers. The latest new feature online since December, GéoLoiret is a geographic system where you can consult the land registry or aerial photos of your house. An immediate success with Internet users in the department. Loiret shares this trophy with Loire, which has also adopted a "portal" approach with sections aimed at young people, families and seniors and articles of public interest on its territory. www.loiret.com/cgloiret www.cg42.fr "80% of citizens looking for public information arrive on their city's website even if it is not a city competence", says Stéphane Sacquepée, project manager within the Lyon Plan for the Information Society. This means that you have to redirect to the right site and use the resources of the national platform Service-public.fr. Citizens are looking for useful or event-related information, as well as local online services (reporting potholes in the road, reserving a sign for a move or renting a municipal hall). "We need to increase the number of entry points because not all Internet users have the same logic. In the spring, we are launching an organization by audience: citizens, tourists, newcomers and businesses," announces Stéphane Sacquepée. "On the other hand, we are banning anything that is a gadget. We have thought about broadcasting the municipal council online, but it is very little used," he says. Two special features to finish: the site was designed using free software that is now available to other communities, and it offers a knowledge desk (certified response within 72 hours to any question by documentarians). www.lyon.fr

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We have never talked so much about giving as since the ravages of the tsunami in Southeast Asia. But there are gifts and gifts. For the shipwrecked people of Asia, we give money above all. It is a useful gift, a burst of generosity dictated by emotion, misfortune. But, on Saturday, no one put a 10, 20, 50 or 100 euro note on the Pont Marie. The gift in question here is intended, so to speak, to be disinterested. Moreover, the idea of the "great gift" does not belong to anyone (no leader, no owner), it is given to everyone, it is a "software", an idea to share. Marcel Mauss, author of Essay on the Gift (1923), is the explicit reference of the Mauss (Anti-Utilitarian Movement in Social Sciences), created more than fifteen years ago, and which publishes the quarterly review of the same name, edited by La Découverte. Two of its leaders, Jacques Godbout and Alain Caillé, are the authors of the excellent L'Esprit du don (La Découverte Poche), where they describe a gift as "any provision of goods or services made without a guarantee of return, with a view to creating, nourishing or recreating the social bond between people."

## ###ARTICLE\_START### ID:63

On November 17, Bill Gates, while traveling in Paris, visited UNESCO headquarters to sign a partnership agreement with the organization. The agreement defines eight objectives for which UNESCO and Microsoft promise to work together, by exchanging experience, know-how and development projects. As laudable as these objectives are, we are surprised to see UNESCO choose to implement them with the help of Microsoft. This is all the more so since the international organization has shown significant signs of support for free software in the past, by putting a portal dedicated to it online, recognizing the GNU project (1) as a "World Treasure", or by supporting the development of the Freeduc live CD of the Ofset project (2). The 2003 UNCTAD annual report concluded that "free software could boost the ICT sector in developing countries" and UNESCO stated, through Abdul Waheed Khan (Information and Communication Department): "UNESCO has always encouraged the extension and diffusion of knowledge and recognizes that in the field of software, free software diffuses this knowledge in a way that proprietary software does not allow." Yet here we are, with the signing of this partnership, we have the feeling of seeing this honorable institution turn away from a real opportunity to reduce the digital divide in developing countries. Because what will be the long-term effects for both parties? When we examine them, we see that these are "commercial spin-offs" as far as Microsoft is concerned, while the term "negative consequences" is appropriate for countries in the South... The Redmond firm, in exchange for a minimal investment in making copies of programs already amortized, obtains the opportunity to establish its commercial penetration in countries in the South, surrounded by the prestige and prescriptive power of a large international organization. For developing countries, the list of consequences and abandonments is longer. By promoting proprietary software, the agreement encourages developing countries to perceive software as something that is bought rather than built, as an industrial product rather than a cultural technique that deserves to be taught and shared. The agreement adheres to the idea that it is acceptable to give up essential freedoms for the sole purpose of having access to certain computer programs. Education and culture are not just about know-how and knowledge: they are also made up of values. When software is used as a vehicle for education and culture, these values should not be relegated to the background. If developing countries aspire to reduce the digital divide that separates them from industrialized countries, they do not intend to sacrifice their linguistic and cultural specificities. However, a publisher like Microsoft, whose captive customers they are offered, is not in a position to develop versions of its software in languages or for uses that do not offer it a profitable commercial outlet. This is not the case for free software where the commitment, voluntary or not, of a small number of people allows this localization. The Mozilla Internet browser can now be used with an interface in Luganda, thanks to the efforts of a small team of eight people. This translation was completed in less than a year by a team of eight motivated users, including four translators, without funding and without formal organization. As the Ivorian GNU/Linux and Free Software Association recently pointed out: "to learn, you have to understand." It is indeed difficult to see how computer science students in developing countries could appropriate techniques whose essentials remain hidden from them? It is even more difficult to understand the legitimacy in terms of teaching of a firm whose business model is largely based on prohibiting the study and use of the technical processes that it implements? In contrast to this narrow-minded mentality, the philosophy of free software is based on the pooling of knowledge, perfectly in harmony with the traditional sharing culture of many developing countries, particularly African ones. A hackneyed slogan of development aid dating from the 1970s proclaims: "Give a man a fish and you feed him for a day; while teach him to fish and you feed him for a lifetime." In the computer age, by giving a man proprietary software, we make him a simple consumer of technology; while by offering him the possibility of appropriating the technique of free software, he becomes a producer. By choosing proprietary software, a State limits itself to renting a rental technology that it will pay for in the form of renewable licenses and paid updates of its tools. In the case of free software, software development will be carried out locally, and this capital that went abroad will remain in the GDP. The ability to undertake in the information society depends primarily on access to the software on which it is based. An industrialist who would be dependent on a supplier in a quasi-monopoly situation that prohibits him from modifying his software tools himself to adapt them to his activity loses all hope of one day entering on an equal footing in global competition. An industry based on free software places itself, from the outset, at the same level of technology as the largest international players. In the era of the information society, only the country that masters its software tools can hope to master its development. Otherwise, it is the victim of creeping colonization, first economic and cultural, and then, ultimately, political. To be convinced of this, one need only observe the intense lobbying efforts against free software currently being conducted by the United States within the World Summit on the Information Society (WSIS). In addition to its efficiency, political leaders expect from a communication system that the deliberations it conducts within it and the decisions it is about to take are not subject to the gaze or influence of a third party, whether a foreign power or private interests. Assurances that Microsoft products cannot provide under any circumstances because of the confidential and concealed nature of their source codes. As early as 2000, a report from the Strategic Affairs Delegation, part of the French Ministry of the Armed Forces, pointed out the collusion between the NSA (National Security Agency) and Microsoft, going so far as to denounce, while remaining cautiously conditional, the presence of NSA officials among Microsoft's development teams. Four years later, the parliamentary report on economic intelligence commissioned by the Raffarin government from MP Bernard Carayon highlighted the same dangers attached to proprietary software in terms of informational independence. Free software, whose source code can be verified by all, is not suspect of the same collusion between States and private interests. It alone can guarantee to countries in the South that by catching up on their technological delay, they are not at the same time abdicating part of their sovereignty. We express the fear that through this partnership, with the quite involuntary assistance of UNESCO, Microsoft is preparing to force the hand of developing countries to place them on the path, not of sustainable development, but of equally sustainable subjection. We fear that Microsoft's "gift" will be the "kiss of death" given to research and the software industry in these countries. Bill Gates' offer to UNESCO is an offer of commercial development for Microsoft, while free software presents a real alternative for cultural, scientific, technological and economic development for countries of the South. We take note of the statement by Koïchiro Matsuura, Director-General of UNESCO, who indicated that "the relationship between Microsoft and UNESCO is not exclusive". We very much hope to see these statements confirmed soon through an approach that gives priority to free software, an approach that would restore a balance that has now been broken. (1) Project launched in 1984 to build an operating system that is the chorus and conductor of any totally free computer. The name GNU, "GNU's not Unix", is a computer scientist's joke, the acronym never revealing its meaning. (2) Freeduc is a completely free GNU/Linux distribution that does not require any installation. It is specially dedicated to the world of education and gives the opportunity to those involved in the field to familiarize themselves with the 40 selected free applications. Sergio Amadeu da Silveira of the National Institute of Information Technology (Brazil), Benoît Sibaud of the Association for the Promotion and Research in Free Computing and Frédéric Couchet of the Fondation du logiciellibre.

## ###ARTICLE\_START### ID:64

It is a ritual that, at the dawn of the new year, invariably follows the turkey, the Yule log and the bubbles. The Web is no exception and is taking stock of the last twelve months in its own way. The year 2004 has indeed had its share of events in terms of innovations and uses of new technologies. The small world of digital technology has thus closely followed some major trends such as the explosion of broadband, the fascination exerted by digital convergence in the home, the media coverage of blogs, not to mention the rush of consumers towards products such as flat screens or MP3 players. The reference sites have therefore not failed to paint a portrait of this year 2004 which is definitely very high-tech. The Journal du Net has thus chosen fifteen significant events to tell the story of 2004, starting with Google's entry on the stock market, the adoption of the law for confidence in the digital economy and the arrival of 3G. For its part, La Lettre de l'Atelier has drawn up its 2004 assessment by selecting three mature uses (broadband, free software and online commerce), three emerging uses (voice over IP, 3G and blogs) and by electing the three companies of the year, namely Google, Apple and Oracle/People soft. For its part, ZDNet has turned to its readers to outline the major trends in the multimedia world. The analysis of their responses somewhat demystifies the so-called success stories. Internet users thus support the increase in ADSL speeds but, on the other hand, have a rather mixed opinion of the triple play offer that made the headlines in the multimedia sections, since not all Internet users can benefit from these new services, starting with those who are excluded from unbundled areas. Similarly, the booming market for paid online music downloads has not convinced Internet users. The cause is the lack of interoperability between platforms and the repressive strategy of record companies in the absence of an adapted offer. Each year, new technologies and products that are necessarily very innovative are announced with great fanfare by companies in the sector. Alas, some of them look more like little mice born from an elephant. Wired News is currently calling on Internet users to draw up a list of flops of 2004. Results online at the end of January. The Technology Research News team has selected the major advances in research of the year in different sectors. Among other developments observed, a certain humanization of technology with increasingly complex interfaces that are nevertheless easier to use. But beyond high-tech innovations, the Internet is above all a communication medium used by an ever-growing public. The uses that can be made of it are in this respect revealing of trends and fads. Google thus takes a look back at the past year in its own way. Its interactive retrospective not only allows you to view a monthly selection of world events but also to discover the top most typed queries on the search engine as well as on the news engine. The result is at least instructive as to the interests of public opinion. The Super Bowl "nipplegate" thus aroused the curiosity of Internet users in February who rushed to Google to find the image of Janet Jackson's famous bare breast while John Kerry was simultaneously appearing in the news. Iraq, like the American elections, dominates searches in the press with keywords like Faludja or Nick Berg, the decapitated American. But Lynndie England, the young soldier accused of mistreating prisoners at Abu Ghraib, also appears at the same time in Google queries... A glance at the lists of keywords typed in sixteen countries, from France to China, including Brazil and Germany, also offers a brief overview of national preferences in terms of surfing. Lefigaro.fr also presents in the form of a slideshow the top personalities most searched for on Yahoo. Nicolas Sarkozy is ahead of Jacques Chirac in the politician category while Monica Bellucci remains the undisputed star of cinematographic requests. Readers of Le Figaro will also be able to find on the site the photos of the year on the front page of the daily newspaper as well as the 25 personalities who saved money in 2004 according to the results of an exclusive Figaro Entreprises/France Inter survey. Children will be able to consult the retrospective of Décrypt'Actu proposed by France 5 Education, each event being explained in an educational way and accompanied by infographics and video and audio content. A smart way to end 2004. www.journaldunet.com/0501/ 050103evenements2004.shtml www.zdnet.fr www.atelier.fr/article.php ? artid=28883&catid=20 www.wired.com/news/culture/ 0,1284,66062,00.html www.trnmag.com/Stories/2004/122904/TRN'sTopPicks122904.htmwww.google.com/intl/en/press/intl-zeitgeist.html www.google.com/intl/en/press/zeitgeist2004/index.html www.lefigaro.fr http: // education.france5.fr/ actu/W00456/1/

## ###ARTICLE\_START### ID:65

For this first article of 2005, we resisted the temptation to write these traditional chronicles of prospectives for the year to come. Not shying away from any sacrifice, and after many libations where mead flowed and where we feasted on bear bellies fried in Urus fat, we decided instead to sacrifice, for the benefit of science, a fish (not very fresh by the way) in order to read in its guts what the future holds for us in about fifteen years. To those who were expecting a column on IP telephony, the future of the media or what the big computer manufacturers have in store for us, sorry. We have already been talking about these subjects in these pages for several years, come on! It will be for another time. Humanity has always been able to progress thanks to the contribution of researchers from different eras. They understood that the race towards progress and well-being required the sharing of knowledge in whole or in part. However, even if today we live in an era that many describe as formidable, the acceleration of technological progress has also been accompanied by a strengthening of intellectual property protection mechanisms. This hardening has also seen this culture of sharing knowledge quietly fade away in favor of... the profits of large industrial groups. Although the populations of the Northern hemisphere enjoy the comfort and quality of life brought by these technological advances, the people of the Southern hemisphere are denied access to many products and services, due to their prohibitive prices and the quasi-monopoly that these multinationals have on these said products, by means of intellectual property. Despite the injustice of this state of affairs, this model could continue to prosper as long as our world was in "analog" mode. However, the arrival of digital technology and network culture is changing the situation of this model, which is now largely obsolete (even if its defenders do not want to hear about it yet). Review the model This capitalism based on the exploitation of knowledge is, in all likelihood, set to undergo a major change. As the late sociologist Jean-Marie Vincent rightly pointed out, this capitalism is the work of "a gang of thugs who commodify absolutely everything, who intend to patent, commodify the living, do not recognize any limit of private life to what is not likely to be put on the market, who commodify knowledge, images, culture". In short, these knowledge merchants have pushed the cork too far. In the long term, once again, NTIC will have a direct impact on this knowledge which resides in the hands of a few large industrial groups. Indeed, we have seen for several years that new information technologies are completely redefining the implementation and application of intellectual property rights. These same technologies that have made the North prosperous will be at the very heart of the strategy that the South will use to respond blow after blow. This "technological sword", responsible for the wealth of the North, will also be the one that will cause its migration to a different world (don't forget, I am a self-confessed naive). Let's not kid ourselves, patents as we know them will soon be in the hot seat. The South is taking charge, free software is gaining momentum We only have to look at the policies of these new emerging economic powers that are China, Brazil, South Africa or India to see that the edifice on which this knowledge capitalism was built is on the verge of suffering blows. For example, in the very field of NTIC, these countries have decided to build or migrate their technological infrastructure to a model that places a large place on free software as well as free and open standards and norms. Japan, South Korea and China are financing the implementation of a Linux operating system adapted to their needs. Many countries are adopting or will gradually adopt such policies in order to break their dependence on the large American software conglomerates that have never ceased to dictate their almost prohibitive prices. Even countries in the North are migrating to these new paradigms. Whatever the proponents of proprietary software think, the free software model is here to stay. For the years to come, proprietary and free software will have no choice but to learn to coexist. The genie is out of the bottle, and I am not afraid that it will not want to go back in. Culture? Yes sir! Similarly, whether in the North or the South, NTICs are undermining the entire concept of copyright so dear to the cultural community. We know only too well that records and films are the first industries to suffer from the impact of new technologies. Despite all their efforts to resist file sharing tools, these industries will have to review their business model or risk disappearing. Fortunately, some solutions are emerging. The new licenses designed by the Creative Commons team are a small piece of the final puzzle, although many other problems remain to be solved. But, and this is what promises to be fascinating, these new models that are being put in place in the fields of software and content will soon be taken up in other industries. Life sciences: the BIOS project How many times have we denounced this indecency in seeing the population of an entire continent, Africa, die of AIDS, because the drugs that pharmaceutical companies design for the tough guys of the Northern hemisphere are not accessible to them, despite the record profits that these firms rake in each year. At the heart of this debate is intellectual property and the royalties paid to these companies. As the OntheCommons blog rightly pointed out, try to imagine a world where life sciences were under the thumb of a company like Microsoft for software. A world where no innovation or advancement would be possible without first acquiring a license from the company. Fiction? Not really, when you see that large companies working in life sciences are increasingly relying on patents. It is to avoid such a catastrophe, because it would undoubtedly be a catastrophe, that the Rockefeller Foundation has granted the Australian research center CAMBIA (Center for the Application for Molecular Biology to International Agriculture) a $1 million grant to set up a mechanism comparable to the OpenSource model, but applied to the life sciences. The BIOS (Biological Innovation for Open Society) project will advocate for open access to biotechnologies and will be led by renowned scientists, including Richard Jefferson, the head of CAMBIA. For the record, let's point out that Jefferson became known in the scientific community for having discovered a molecule that could identify active genes in a cell. Instead of wanting to take advantage of this innovation through an exclusive patent, Jefferson gave the rights to his invention to several non-profit laboratories while selling it at a high price to large industrial groups. It's hard not to draw a parallel with Creative Commons licenses ("Share what you want, and keep your rights to the rest"). As innovative as the BIOS project is, I still expect to see other projects of this type emerge in the coming years in as many fields of activity. I will even predict that in a few years, thanks to the network culture and these new tools that creative geniuses are constantly creating, one or more major scientific discoveries will be published first on the Internet and under some kind of Creative Commons or OpenSource license allowing all of humanity to benefit from them. A revolution in progress? Certainly. In short, for the next twenty years, I predict that the entire edifice on which intellectual property and the patent mechanism as we know them were built will be completely overhauled. And it is on this overhaul that I have great hopes. mdumais@ledevoir.com

## ###ARTICLE\_START### ID:66

There is a sense of unease in the realm of big brands. Accustomed to being chosen despite their higher price than less prestigious products, these stars of consumption are today being challenged on all fronts by competitors who are playing the cheap-low-price card to the hilt. Of course, luxury brands still provoke the same consumer hysteria, and teenagers are more addicted than ever, especially in clothing. To the great delight of Nike, Adidas and their ilk. If the brand is not (yet) doomed, its hegemony is being called into question. The rise of hard discounters in consumer habits is hurting big manufacturers a lot. Unable to reach an agreement with mass retailers on lower prices, they were summoned by the government on Friday for a meeting in the coming days. Investigation into a crisis of faith. Electronics Rise of hypermarkets The days when consumers would enter a store and ask to see Philips televisions or Sony hi-fi systems are long gone. The all-digital era is well and truly reshuffling the cards to the detriment of the sector's leading brands. According to figures provided by the GFK institute, this offensive concerns practically all product families. Apart from digital camcorders and MP3 players, which have been relatively unaffected, the growth of "no name" or B-rank brands such as Bluesky (Carrefour), Neovia (a Franco-Korean assembler) or Beko (Turkish) is general. Their combined market share is around 25% on average. A new development is that specialist retailers such as Darty and Fnac are also trying their hand at selling these flagship products with no or almost no brand. "The technological advantage taken by the big brands in new markets is disappearing more and more quickly," says Julie Kunin, an analyst at GFK. The major brands are fighting back "from below" by offering similar products under names other than their own and/or are offloading their "low added value" activities to Asian manufacturers. Thomson has teamed up with the Chinese TCL to produce its televisions, Philips with the Taiwanese TPV. In personal computers, HP, Dell and others have managed to contain the influence of "no names" by offering entry-level laptops for less than 1,000 euros. The other way is to innovate "from above", by playing with major marketing campaigns. Apple succeeded in this bet with the iPod, its MP3 player which has now become a generic name. Before a cohort of competitors arrived. Food Hard discounters are thriving The major food brands, detergents and hygiene and cosmetics groups (Procter and Gamble, L'Oréal, Nestlé, Unilever, etc.) have two enemies. One: hard discounters (Aldi, Lidl, Ed or Netto...), the brand specializing in "no brand" at knockdown prices. Two: distributor brands are increasingly invasive in hypermarkets. By offering products at rock-bottom prices (sometimes 50% lower), hard discounters have finally established themselves. According to a study recently published in the specialist magazine LSA, 28% of consumers surveyed "are increasingly frequenting hard discounters to the detriment of hypermarkets, supermarkets and local stores". Distributor brands, or MDD (Marque Repère at Leclerc, etc.), also pose a danger. According to specialists, these MDDs have managed to grab 30% of the market for consumer goods. And they have no intention of giving up: all the brands are currently strengthening their references. One of the ways in which the big brands have found to counter this double wave? Produce for themselves, without boasting about it to the public. The paper producer Kimberley Clark, the photographic film manufacturer Agfa or the yogurt maker Yoplait, among others, all produce for private labels or low-cost brands. Which allows them, at least, to run their factories at full capacity. Medicines The rise of generics No longer ask: "A box of Doliprane, please", but: "Paracetamol, thank you". In pharmacies, branded medicines are increasingly giving way to generics, these exact copies sold under the scientific name of the molecule once the patent for the original has fallen into the public domain. Having started a little late, France is now following the movement: in 2003, one in ten boxes of reimbursable treatments sold in pharmacies was generic. In 2008, it will be one in four, according to a study by the economist Claude Le Pen. Long regarded with suspicion, these drugs are now seen by more than 80% of French people as what they are, the strict equivalent of the originals, according to a Louis-Harris study from May 2004. This success owes everything to government policies designed to limit the social security deficit. Sold at around 30% less, promoted by state campaigns and with a quasi-citizen image, generics also benefit from the arrival in the public domain of "big" branded drugs, such as Mopral (omeprazole) a few months ago. Faced with this cheap drug, the big labs have little room for maneuver. As a result, some have opted for the production of generics (like the Swiss Novartis with Sandoz) in order to capture a share of this market. And many of them are trying to delay the arrival of generics, even if it means embarking on legal guerrilla warfare. Or even by launching a new molecule on the market that is barely modified from the old one in order to hinder competition from copies. Software Linux Phenomenon It seems a long time ago that Bill Gates still had the aura of a nice little computer genius. Having become the world's number one software company, weighed down by a trial for abuse of a dominant position in the United States and another (in progress) in Europe, he finds himself with competition that is still marginal but very lively from free software. An elusive competition because it does not come from another company: these programs are designed in collaboration by hundreds of computer scientists, often volunteers, and are freely accessible and modifiable at will. The Windows operating system is in competition with Linux, the Office suite (word processing, spreadsheet) with OpenOffice and the Web browsing tools (Explorer) and email (Outlook Express) with Firefox and Thunderbird. In the server market, these professional computers, the growth rate of Linux is thus close to 30% per year. There are two main reasons for this phenomenon: the margins taken by Microsoft are like monopoly rents, more than 80% on Windows; and some companies and many states no longer want to depend on a single supplier, an American one at that. Free software, which can be copied endlessly, lowers prices and limits dependency. Where Microsoft imposes its products with marketing and advertising budgets, the associations and foundations that manage free software are betting on the effectiveness of their product. And they do not hesitate to launch fundraising campaigns to pay for their own advertising pages, such as the one published in December in the New York Times for Firefox. Automobile A bastion under attack It is, along with the luxury industry, one of the last bastions of the brand. "In the automobile world, the brand continues to be the essential reference point," assures Martine Gorse, brand identity director at Renault. But this model is also starting to crack. No brand, no model remains unbeatable. A symbol: the Volkswagen Golf, a European best-seller for twenty years, dethroned three years ago by PSA, then Renault. The logic of "national" purchasing and the positions of the dominant brands are crumbling, nibbled away by "small manufacturers", particularly Asian ones. "We are witnessing a break with the thirty glorious years attached to the status car. Thirty-somethings, whose sensitivity has been built by the crisis, new technologies and globalization, are increasingly in a logic of compact, less expensive, hyperfunctional products", diagnoses Charles Wassmer, marketing and forecasting manager for PSA Peugeot Citroën. In France, the Korean manufacturers Hyundai and Kia are benefiting from this. Despite still limited volumes (30,000 and 12,000 vehicles sold respectively), they showed dazzling growth (25% and 80%) in 2004. "Today, the customer attaches more importance to the type of vehicle than to the brand," believes Jean-Claude Debard, head of Hyundai France. Even Renault is convinced of this, to the point of launching the Logan, the famous "5,000 euro car" under the brand of its Romanian subsidiary, Dacia. Initially intended for Eastern Europe, it will be marketed in Western Europe in June. "The Logan is the opposite of status and expense," believes Eric Fouquier, a sociologist.

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When the anti-brand becomes a counter-brand, isn't it ultimately a brand in turn? This is the equation with X unknowns that the pioneers of "ad breakers" are facing today. And that one of the projects of the Adbusters Media Foundation, an alter-globalization icon created in 1989 and a pioneer of culture jamming, of cultural blurring, is trying to solve. That is to do guerrilla marketing with a "non-brand": the Blackspot Sneaker. A simple sneaker, which is a recycled clone of the Converse, bought by Nike in September 2003. Except that it is not high-top. That a black dot serves as an anti-logo. And that a red dot, near the sole, symbolizes the blow dealt to Nike by a 70% biodegradable sneaker. Its "main mission": "Establish a global consumerist cooperative." Eden. Where is the Blackspot Sneaker manufactured? “Ah, it’s a long story,” says Kalle Lasn, CEO of Blackspot Anticorporation and director of Adbusters magazine, from his Toronto HQ. “We originally wanted to set up in Missouri, in a former Nike factory. We were told we should look in China.” Not exactly the motherland of fair trade. “It’s true, there are no unions,” admits Lasn. Then a mission went on a spree to Indonesia. Not a model either. Then to South Korea. Then to Poland. And finally where? In Portugal, in a factory run by the same family for three generations. Where employees “earn up to twice the average wage,” wander through the vineyards during their lunch break, listen to music while working, and harvest a fourteenth month. In short, an Eden where employees think “it’s the best factory in Portugal.” At least that's what the Blackspot Sneaker website (1) is selling (well). To complete the panoply of jiu-jitsu applied to the counter-economy, each consumer buyer receives a certificate of future shareholder. Symbolic? "Not only. If it works, they'll have their say." For the moment, it's working "pretty well," says Lasn. More than 10,000 pairs have been sold on the Internet alone. In North America alone, more than 200 small independent shops have contacted us to put it on sale." Word of mouth against the global bludgeoning of big brands? Not only. Initially, a $250,000 launch campaign was on track. But 10% was released. Because only CNN accepted the ad spot, set up by an alternative anti-ad agency, Powershift. "We want our worst enemies, MTV, Fox & co. They refuse. We're going to take them to court. A Chicago law firm is on the case." The Adbusters mouse even put up a giant ad near the headquarters of the Nike elephant in Oregon. Same in New York. Lasn is thinking big. "Who knows?" he laughs. "Why not make $100 million in sales, reinvent the very concept of the company, marketing, and brand?" He says he wants to launch Blackspot Coffee-shops in the spring. Where you could surf alternative literature via free software, with fair trade coffee or locally produced organic food. Not to mention leaving with Blackspot on your feet. A new formula and new design are also under consideration: 100% from recycled tires. Invent. Lasn calls it "acting by reinventing a new form of materialism." A beautiful Copernican revolution for neo-anarchists who follow the theory of degrowth and who initiated Buy Nothing Day in 1992. "It works in 65 countries," says Lasn. "People need to understand that overconsumption is killing our planet. That an American consumes five times more than a Mexican, ten times more than a Chinese, thirty times more than an Indian." Except that, for him, this commitment very quickly showed its limits. "What have we gained? Nothing? The most conservative right governs us, capitalism crushes us. And what do we do while waiting for the revolution? We have to get our hands dirty. Invent our "alter system." Canadian Naomi Klein, the pope of no logo, declined the offer. Just like other adbusters, who consider that alter-consumption amounts to playing the game of capitalism. "We're inventing another logo that only perpetuates the system of brands that we want to fight," says Vincent Cheney, former advertising executive and editor-in-chief of the French magazine Adbusters. "It's like putting a coat of green paint on the capitalist system." Divisions. The Blackspot Sneaker, in its own way, concentrates the divisions between reformists and radicals. "I think," says Vincent Cheney, "that we should leave the conciliatory pole to those whose role it is, like certain NGOs or unions. It's up to us not to abandon the pole of radicalism." Lasn, for his part, does not want to give up. "Let's at least try something else. If I lose, I'll go back to Estonia where I come from. And I'll end my life in vodka." Without a brand? (1) www.blackspotsneaker.org

## ###ARTICLE\_START### ID:68

New York - Microsoft, which in 2004 signed a series of armistice agreements with its enemies in the United States, is coming up against an adversary determined to correct the infringements of free competition in the European courts. The Court of First Instance of the European Court of Justice (ECJ) yesterday refused to grant the world's number one software company a suspension of the "corrective measures" imposed by the European Commission as part of its conviction for abuse of a dominant position. In short, the group must now offer its European customers as soon as possible a version of its flagship Windows operating system stripped of the Media Player audio and video file player application, one of the cornerstones of the European case. Microsoft assured yesterday that it would comply. "PC manufacturers should have this new version of Windows available to them in January and the rest of the players in the distribution chain in February," said Brad Smith, head of legal affairs. Fortunately, according to investment bank Citigroup Smith Barney, "the judge's comments seem to suggest that Microsoft will be able to integrate new security, search, media, etc. features into future versions of its operating system." A clear setback While the financial impact of yesterday's decision is considered almost zero, it is "a clear setback for Microsoft in Europe, which makes the out-of-court settlement that the group still ardently desires unlikely," according to brokerage firm SG Cowen. The group's American strategy, which is to reach an out-of-court settlement with its opponents in exchange for the payment of hundreds of millions of dollars, is hitting a wall in Europe. "Once the evidence [of wrongdoing] has been gathered, it is almost impossible to stop the judicial system," notes Professor Nicholas Economides, a business law expert at New York University. Of course, competitors like Novell and Sun Microsystems made peace with Microsoft this year, ceasing to provide Brussels with incriminating evidence, but "they did it with long-term considerations, for their future", rather than to extinguish the European case. "I don't think we can stop it", insisted the academic. The handshake in April between Steve Ballmer and Scott McNealy, respectively CEOs of Microsoft and Sun, will remain as a strong image of 2004. Of course it cost Microsoft $1.6 billion, but the two groups had become sworn enemies in 2002 when Sun brought the infringements of its universal programming language Java to the American courts. In November, Brussels lost two other allies in its fight when Novell - which publishes the free software Linux - and the Computer and Communication Industry Association (CCIA), a coalition of competitors such as Oracle, AOL and Yahoo!, announced financial agreements with Microsoft. These welcome compromises did not prevent Microsoft from suffering a defeat yesterday. "Microsoft lost because it will no longer be able to fully determine which functions to put in its operating system," Economides said.

## ###ARTICLE\_START### ID:69

New York - The world's number one retailer, the American Wal-Mart, has been offering a laptop computer for $498 online since yesterday, while the first prices for this type of product previously started at around $700. The "Balance" computer, with a 14.1-inch LCD screen, 1 GHz processor and 128 MB of memory, is equipped with the Linspire operating system, designed from the free Linux software. It offers low-speed or high-speed Internet access and an office suite compatible with Office (Microsoft). This computer is the "currently least expensive laptop on the market with a complete operating system and an office suite," according to a press release. "Comparable devices cost hundreds of dollars more, sometimes without even including an office suite or software," added Linspire, a Californian seller of systems designed on Linux for laptops and desktops. Of course, it is a laptop running Linux - offering fewer applications, particularly for digital media (photo, music, video) - and "it is easier to reduce prices without Windows", Microsoft's flagship operating system, indicated Charles Smulders, of the Gartner research firm.

## ###ARTICLE\_START### ID:70

Two weeks ago, during a Christmas dinner, my friend René and I were wondering about our passion for working in fields related to new technologies. Some believe that this passion is only a manifestation of "young men" in blissful admiration for technology, as one can be in front of an automobile. And yet... This reflection brought me back to readings I did during my adolescence, when counterculture and magazines like Mainmise and the Whole Earth Catalog were flourishing. At that time, the only computers that existed belonged to universities and research centers. The personal computer was only a dream pursued by a few madmen who had glimpsed the possibilities when such a tool could be put into the hands of everyone. Similarly, networks as we know them today were only a crazy idea put on paper by visionaries working in research centers like the legendary PARC of Xerox. During those years when a real revolution was brewing, the world had not yet begun its migration from analog to digital. However, in February 1965, one of these visionaries, Ted Nelson, had glimpsed what this information society as we know it today would be. During a conference, Nelson had described in detail what the Web would be by introducing for the first time the concept of hypertext. However, between the vision of a Ted Nelson and its realization by a certain Tim Berners-Lee, more than 25 years would pass. Humanity, imagination, madness Today, many of the concepts imagined by these visionaries from a not so distant past are now a reality. Personal computers have reached an unequaled power. Broadband networks are now part of our lives, wireless has become so widespread that in a few years, it will be possible to "plug in" everywhere, and above all, new software tools allow everyone to exploit their talent. Yes, most of the tools that allow our world to plunge into the digital revolution are finally available, and all citizens can finally take hold of them. However, and this was the subject of our discussion between René and me, everything still remains to be done. Now that most of the tools are accessible, we only have to inject an essential element in order to realize our dreams, we only have to inject a bit of humanity, imagination and madness to these tools so that they help us change the world. Naive? Yes, I admit it. However, whatever people say, we have not yet switched to a digital world. Our migration is well underway, but, at the moment, we are still only laying its foundations. The tools are there, but everything still needs to be invented. For the next 15 or 20 years, those who, like me, dream of a better world, will still have a lot of work to do before we can offer our children and grandchildren this dream. Naive? Absolutely. But realistic too. Indeed, much remains to be done. Before we can take a foothold in this new world, one fact remains: we must change our mentalities, review our business models, encourage the appropriation of technologies by all without leaving anyone by the wayside of the information highways while stimulating citizen participation; in short, all we have to do is reinvent the world. However, naive as I am, allow me to believe that this movement is well underway. When I see that the dream of visionaries like Richard Stallman, the one who defined the concept of free software, is finally coming to fruition, thanks to the contribution of an entire community stimulated by the original contribution of a young Finn named Linus Torvalds; when I see everywhere on the Web this proliferation of communities coming together to offer new tools to those who need them; when I can read that national governments are deciding to adopt the tools developed by these sweet dreamers, it is difficult for me not to believe that this long expedition will be a success. Intellectual Property Naive? Absolutely. But when I see that the work of one of the great professors of law, Lawrence Lessig, is laying the foundations for what will be nothing less than a great revolution in the field of intellectual property, it is difficult not to be enthusiastic and not to believe in a New World. Skeptics? Let's go for a prediction. Within five years, I expect a major scientific discovery to be revealed on the Web, and the accompanying "license" to be directly inspired by the GPL (free software) or Creative Commons (content). Naive? And why not? When I examine this abundance of ideas and projects that keep appearing here and there, when I see that network culture is a formidable amplifier of the imagination, when I see these young people uniting in order to change the world, I would be remiss if I were not naive and not believing in them. Their names are Clément, Martine and Sylvain. Their names are Jean-Pierre, Benoît, Marie-Claire, Monique and Maryse. They are like my daughter Véronique, on the cusp of adolescence and full of idealism. They are also older ones like Hervé, Yvon, Laurent, Robert, my friend René and my old mentor, Michel. They are from here and there. They are alter-globalists, teachers, librarians, members of community action groups, but also, they are of the breed of these new businessmen, inhabited by the vision of a better world. And all pursue a common goal: to invest, explore, learn, share and give back to the community. All of these, and many others, dream of contributing to the establishment of this new world. Naive? Yes, in my opinion, they all are. But allow me to believe that it is naive people like them who, over the centuries, have helped to change the world and who, once again, will transform it again. Only twenty more years before we switch to the digital universe and all the opportunities that will be offered to us. Believe me, I sincerely hope to still be in this world when we finally hand over the keys to our grandchildren. Naive? Yes, so what? \*\*\* PS: A very Merry Christmas to all readers of this column. Please accept my best wishes for happiness, peace and health, with a special thought for all the naive people who recognized themselves in this column. mdumais@ledevoir.com

## ###ARTICLE\_START### ID:71

In France, Microsoft is him, Christophe Aulnette, 42 years old. Hired under the Windows banner in 1988, he has managed the French subsidiary since 2001. His bête noire is the penguin, the emblem of Linux free software. Administrations are listening to this siren song. Christophe Aulnette, who has just set up a "public sector" division, sings a different tune: free software, free to buy, is expensive to develop and maintain.

## ###ARTICLE\_START### ID:72

The quality you prefer in a manager? Commitment. And the flaw you hate? Arrogance. The most enjoyable task in your life as a boss? Transmitting my enthusiasm for the company and the potential of technologies, whether in dialogue with our customers or with our employees. The one you would like to skip? Reporting! Your latest anger? A customer caught in a Kafkaesque situation within our services. Your latest crush? For the associative world that I discover as part of our skills sponsorship actions, dedicated to reducing the digital divide. An example: in five centers of the Association for the Right to Economic Initiative (Adie), we provide additional IT training to people in difficulty, future entrepreneurs, beneficiaries of micro-credits. Your best professional memory? Being received in India in Chandigarh, 3 hours from New Delhi by the governor of Punjab. Until late at night, he spoke passionately about the Internet and its desire to accelerate what could be called "digital literacy". It was fascinating: this very old gentleman, in traditional dress, sitting on the ground, embodied the hope of Indians that their country would regain its place in the world thanks to information technology. And the worst? The crisis situation caused by a new licensing policy when I took up my duties, at the head of the French subsidiary, in 2001. Difficult, but also educational... The business leader you admire the most? Carlos Ghosn. In my eyes, he illustrates three essential components of a leader: intelligence quotient, emotional quotient and cultural quotient. The man who has had the greatest impact on your career? Steve Ballmer, CEO of Microsoft Corporation, for his intelligence, charisma and human qualities. If you had not been a manager... Take your pick, a sports journalist or a winemaker. Your favorite fictional hero? Zorro has not been dethroned. Your favorite historical figure? Leonardo da Vinci, for the combination of innovation and art. The athlete you admire? John McEnroe. The last film you liked? Lost in Translation by Sofia Coppola. And the last book? Les Déliaisons dangereuses, the book by Jean-Marie Colombani on Franco-American relations. Are you more of a Château-Cheval-Blanc, Romanée-Conti or Kronenbourg fan? Cheval-Blanc without hesitation. In the car, in the back or next to the driver? No demagogy: if I have a driver, it's so I can work, so in the back. In the company, how many people do you address each other informally? Everyone addresses each other informally, it's the custom in the company. For or against Friday wear? Like the Internet bubble, the concept has "deflated" a bit. But I agree about Fridaywear for days without client meetings. How many emails do you get a day? About 150... and almost all of them useful! We have a good spam filter. When do you watch TV? Late... and too often while reading my emails thanks to the magic of WiFi. A favorite object on your desk? None. Besides, I don't have a desk. Your secret to unwinding? A tennis match. What do you think about while shaving? Quite frankly, about the day ahead. When you get to Heaven, you would like God to tell you... Go back where you came from!

## ###ARTICLE\_START### ID:73

SEVENTEEN NOVEMBER, UNESCO presents a partnership with Microsoft intended to "reduce the digital divide". The news stuns associations that campaign for the civic use of technologies and for free software. The fact that the branch of the United Nations dedicated to culture and science is joining forces with Bill Gates' multinational to promote access to the Internet and computers in poor countries is equivalent to UNICEF working with McDonald's to fight world hunger or a Ministry of Culture teaming up with TF1 to combat illiteracy. For many, writing a text or checking emails are trivial acts that they hardly question. However, they conceal a formidable challenge, that of software thanks to which we can use computers and networks, and freedom or dependence on software publishers. At a time when countries like Brazil and India are taking major action to promote free software, which allows the use, copying, distribution and access to code, the UNESCO agreement is a blot. Its director general explains that this agreement does not call into question "the organization's continued support for different software models, both proprietary and open source." But when students or teachers have used non-free software offered for training, it is obvious that the possibility of migrating to other software will be hindered and that the companies in which they are hired will prefer to use these skills without wasting time having to train them in other programs. At the same time, the operational boss of Microsoft, Steve Ballmer, declared in Singapore on November 18 that users of the GNU/Linux operating system risk multiple lawsuits for patent infringement. After provoking numerous protests, he made it known, using a tried and tested propaganda technique, that the press had misunderstood him. At the same time, we learn (Financial Times, November 24) that, in order to reach an agreement with the lobbying group CCIA (Computer and Communication Industry Association), one of its opponents in the antitrust trial before the European Commission, the software publisher is said to have paid $19.75 million, including $9.75 million to the president of CCIA, yesterday again one of its fiercest detractors. All this while the new version of a key text on the patentability of software in the European Union is being prepared. As it stands, the directive "on the patentability of computer-implemented inventions" would allow the current protection of software via copyright to be replaced by patents. The dangers of such patents have been strongly denounced by many and various voices, both associative and scientific and economist, because of the abuses that these patents would allow and the legal uncertainty that they would introduce. The draft directive was severely amended, by a large majority, by MEPs on 24 September 2003, blocking the patentability of software. Despite this vote by the body elected by direct universal suffrage, governments reintroduced patents on 18 May 2004, during the "competitiveness" Council of ministers - France included, despite Jacques Chirac's 2002 commitments against patentability, which several dozen companies in the IT sector reminded him of this year. The matter is far from over, since Poland has just reversed its vote in May and the text should return to European ministers in 2005, before being presented again to MEPs: will the French government keep the president's promises this time? Across the Atlantic, we have already seen the dangers of unbridled patentability: huge inflation of litigation costs, premium given to legal matters rather than innovation, etc. Similarly, we must ensure that UNESCO does not allow its "partner" to take advantage of its hegemonic position to make administrations and businesses dependent on its products, and, by snowball effect, millions of people. More than ever, software freedom is a political issue: it is up to everyone, citizen, association, community, business, to be aware of this and to ensure that this freedom is respected.

## ###ARTICLE\_START### ID:74

The Mozilla web browser is preferred to Explorer by a growing number of Internet users. Linux is an operating system that some consider more powerful than Windows. Gabber is a chat software, Evolution is an e-mail service that can very well replace Outlook, Kppp allows access to telephone networks. What do these software programs have in common? They are free and do not belong to anyone. The unsuspected growth of free or open source software strikes at the heart of the very concept of copyright. Its users are completely free to run it, copy it, distribute it, study it, modify it according to their needs or improve it for the benefit of the entire community. A computer program is free software if users have all these freedoms. We can already imagine the profound consequences on the idea we have of intellectual property. Less and less marginal since its birth in the late 90s, free software will sooner or later become known to the general public. Its proliferation could very well disrupt the very notion of copyright and, consequently, the method of remuneration for content circulating on the Internet. Imagine music created on a network using free software, music constantly modified by a community of artists. How then can we determine intellectual property? "Free software allows us to make significant modifications to software, and at lower costs than in the old system," explains Simon Piette, systems and network administrator, software developer. "You can actually count on a whole community of competent Internet users rather than relying on a single company. In this perspective, free software decentralizes power since information on its nature and development no longer comes from a single source. There are many more advantages to letting creation circulate freely than trying to count downloads." At the forefront of this phenomenon are a growing number of creators who do not find what they are looking for in the "normal" copyright system. They are thus adopting modes of creation and information exchange based on free software. "The Internet and digital technologies are leading us to other ways of creating and distributing our works," thinks Japanese Atau Tanaka, composer and researcher at the Paris branch of the Sony Computer Science Laboratory, a fundamental research center for the Japanese multinational. You read that right: the user of free software is also a researcher for a multinational entertainment company, the same one that makes its money with Céline Dion and Garou! Antinomy? Tanaka doesn't care about these considerations. "I'm not afraid to create open works and at the same time I'm a researcher at Sony, a company that has a record production and distribution company and that builds digital music players or blank CDs. This company, moreover, has trouble making this convergence; at Sony Music, people often frown when I propose new systems integrating free software. But I'm paid by Sony for that and my employers know that I only manage a handful of researchers." At the Society for Arts and Technology (SAT), a Montreal center for creation and dissemination in step with digital tools, they are banking on free software without hoping for any remuneration on the Internet in the short term. "In the old economy, record companies decide to promote a small number of artists, they also have the big piece of the pie. In the new economy, free software allows much greater room for maneuver, creation tools that are much cheaper than before. It is now a question of making the content live and I believe that we may have to pay for unlimited access to this content on the basis of a monthly fee," believes Martin Chartrand, project manager at SAT. "Free software will pave the way," concludes Simon Piette. "If we can copy software, why not do the same with songs? With other content? By its form, free software will guide the debate on free downloading."

## ###ARTICLE\_START### ID:75

The latest example of the great shock inflicted on Microsoft by free software. With the worldwide launch of the final version of the Firefox web browser on November 9, Bill Gates' Internet Explorer immediately passes for old-fashioned: faster, less susceptible to computer viruses, the "fire fox" demonstrates that the cooperative design promoted by free software has nothing to envy of Microsoft's quasi-industrial habits.

## ###ARTICLE\_START### ID:76

An alternative to copyright launched in 2001 by American academic Lawrence Lessig, the Creative Commons license has existed in France since November 19, 2004. It offers standard contracts for making works available online (creativecommons.org/). Inspired by the OpenSource movement, licenses allow the public to be authorized in advance to use works (texts, photos, music, websites, etc.) according to the author's conditions. About ten countries (United States, Japan, Germany, etc.) have already adopted it, as well as artists such as Brazilian Gilberto Gil, ex-Talking Heads David Byrne and the Beastie Boys.

## ###ARTICLE\_START### ID:77

Once again, the holiday season has arrived, that time when tech columnists are harassed by PR people who all, as best they can, try to convince the scribes of the relevance of talking about this or that product. However, before even starting this column and making our suggestions, let's say it right away, this is the last time this column will mention the name Sony. Starting today, and only when we are forced to do so, this company will henceforth be presented as "the company whose name we cannot pronounce" because of the threats of legal action it is making against the site Jason Kottke, a well-known blogger who had the misfortune of revealing on his blog details about Ken Jennings' elimination from the Jeopardy game show before the show aired. It should be noted that Kottke is a Jeopardy fanatic. He did not fail to comment at regular intervals on the performances of Jennings, who, over the course of 74 consecutive shows, had accumulated $2.5 million, making him the participant who had accumulated the most winnings in the history of this game show. Unfortunately for Kottke, he is only a simple blogger. And while media as prestigious as the Washington Post revealed in their pages, without being worried in any way, the defeat of Jennings before the broadcast of the show, "the company whose name we cannot pronounce" let loose its dogs on Kottke, demanding that he remove all reference to the show, audio and textual extracts. Did Kottke break the law in any way? No. Were there other media that revealed this secret and received a letter from the lawyers of this company? No. In all this story, there is only the arrogance of a company that thinks it can do anything, including dictating what a citizen must or must not say about its programs. So, as a citizen concerned about freedom of speech, I will answer as follows: Buying is voting? Well, that's good, I just had to change my TV. So I will vote for another company. Readers are free to do the same. Back to our usual programming If it had been necessary for the different versions of the Windows operating system to reach the perfection of the mice and keyboards bearing the Microsoft label, several of the columns published in this noble and independent daily on security and free software would not have been written. Since Microsoft invaded this market segment, nothing to do, no one will be able to change my mind... and my mouse. And the very latest batch of mice and keyboards proves once again that the leader in this field is the giant from Redmond, sorry Logitech and all the others. Anyone shopping at Triède Design will definitely want to buy the latest Microsoft rodent by Starck. It's so beautiful and stylish that you'll hesitate to use it. It won't look out of place in the office corner of an iMac G5 owner. In a completely different register, the miniature wireless mouse intended for laptop owners is another "must". Tiny, but still with a good grip, this mouse, designed for both Mac and PC, is the ideal complement for the man or woman on the move. Joy! Still on the Microsoft side, I admit to having been seduced by the Microsoft Photo ProSuite photo editing software. Several of the features of this software will delight the amateur photographer who practices his art with his brand new digital camera. The feature I liked the most? The one where, from several photos taken in the same place, Photo ProSuite gathers and pieces together each of these images in order to make a single one. It is impossible to see any connection between two photos. Practical for those who have always dreamed of taking this magnificent 360-degree photo of the Grand Canyon or the St. Lawrence River seen from the Dufferin Terrace. Wireless terminal Colleague Munger, who occasionally comments on these pages, will surely not hold it against me for revealing his latest acquisition. The same size as the power supply for Powerbook laptops, the Apple Airport Express portable wireless terminal slips easily into a travel bag and instantly connects to a wired network, allowing one or more users to simultaneously connect to the Internet. Joy again! In addition, by connecting the audio output of the Airport Express terminal to a sound system using a cable, you can listen to your music in MP3 format or purchased from the iTunes Music Store. Colleague Munger is inexhaustible when he talks about his wireless terminal. The whole family will applaud when, under the tree, they unwrap the Antidote grammar suite. Have you been told that Antidote was a product designed here in Quebec, that it is integrated into most software packages where the word reigns supreme and that it is sold in both Mac and PC versions? Do we need to tell you more? Since you insist, we will no longer hold back from telling you that there is a software bridge between Antidote and Visual Multimedia. There you have it, you know everything. A special encyclopedia Have we already told you in these pages about the Encyclopedi@ ERPI-Google, a hybrid encyclopedia linked to a website that wonderfully complements the sections covered in the paper version? We also told you that the ERPI-Google encyclopédi@ was a little gem of complementarity that will please both natives and digital immigrants and that it was a perfect tool to reconcile book lovers and young and old trendy people? So, we forbid you to reveal that the columnist's children will receive one for Christmas. Shhh, not a word! Many of you asked for it, Le Devoir understood you. Trendy as hell, tree-loving as Idéfix the dog, eco-friendly, a subscription to the electronic version of Le Devoir will allow you to save a few trees in the boreal forest. In addition, you will have the privilege of reading Le Devoir before everyone else, around 11 p.m. the day before its publication. No need to be a subscriber to Le Devoir to find one of the two or three columns published on these pages and relating to RSS/XML feeds. RSS/XML feeds or RSS/XML news feeds are the Internet version of what many people in the media world call "the press feed" or "news feed". Thanks to software called an aggregator, it is possible to subscribe to these news feeds and view the content of all these sites in a single window, which is very practical for doing your press review, or for following the news live and not missing anything that is published on the Web. Joy again! Lektorat, a small Quebec company, has developed an aggregator all in French that gives you access to the news with a single click of the mouse. Do you know an information maniac? You will satisfy him by offering him this magnificent software. Books You don't have to be a wizard to see that digital technology and network culture will force cultural industries to review their business model. Are you interested in this subject? Allow us to suggest three books for these long winter evenings conducive to reflection. The disk is not turning round, by colleague Alain Brunet has the merit of making the following observation: the record industry is only the first victim of the digital era. The second of these victims will undoubtedly be that of cinema, a subject rightly addressed by Hervé Fischer in his book Le Déclin de l'empire hollywoodien. As for Florent Latrive, journalist at Libération, his essay Du bon usage de la piraterie takes stock of a more global issue, namely the ongoing battle over intellectual property, a subject (and a book) to which we will return. A holy trilogy for those interested in these questions. And free software in all this? Come on, do you believe for a minute that I would have avoided suggesting that you invest a few dozen dollars to allow you to get to know free software? Do you sincerely believe that I would have passed over in silence the merits of the Quebec distribution Édu-Linux and that of the French distribution Mandrake Linux 10.1? You don't know me well, dear readers. However, if I may make one last suggestion, here is one that will delight the many people for whom computers and the Internet are still Chinese. Do you consider yourself a seasoned enough user to share your knowledge and solve many problems? Why not slip into a greeting card a coupon entitling you to your "consulting" services for free for an evening or a Saturday. In addition to ensuring the good health of the computer of the person for whom this royal gift is intended, you will have the opportunity to reconnect with a loved one. mdumais@ledevoir.com - The Kottke affair www.kottke.org/04/12/ sony-ken-jennings-and-me www.kottke.org/04/11/ ken-jennings-audio - The mouse signed Starck microsoft.com/hardware/default.mspx - Microsoft Photo ProSuite www.microsoft.com/canada/french - Airport Express www.apple.com/ca/fr/airportexpress/ - Antidote www.druide.com - Encyclopedi@ ERPI-Google www.encyclopedia.erpi.com/ - Subscription to Le Devoir www.ledevoir.com/abonnement.html - Lektorat www.lektora.com/ - Mandrake Linux 10.1 www.edulinux.org www.mandrake.com

## ###ARTICLE\_START### ID:78

Catherine Bédard does not hide the fact that she is "very proud" of the Lieutenant Governor's Award she received at the Université du Québec à Rimouski graduation ceremony this fall. The young woman from Sainte-Marie de Beauce consistently maintained A's and B+'s during her three years of studies that led her to a bachelor's degree in preschool and elementary education at the Lévis campus. But the Lieutenant Governor's Award is not awarded solely for an excellent academic record. Its recipients must also present an impressive record in terms of social involvement. Catherine Bédard is not left out in this regard either. Upon hearing her eulogy, her classmates told her that her award was "deserved." "They knew I did a lot, but not that much," she reported over the phone. Her most resounding project is called Pedalinux. The young woman says that at the beginning of her baccalaureate, she was shaken up by a professor who acted as a "dream sower". Along with half a dozen colleagues, she set up an organization dedicated to integrating information and communication technologies (ICT) for elementary school teachers, with the Linux operating system. The project was among the finalists in the Forces Avenir competition two years ago, and it also made it to the regional finals of the Quebec entrepreneurship competition. After a few validation tests in Quebec schools and senior centers, Catherine flew to Senegal, where the group of young Quebecers did knowledge transfer for two months in a school in Mbour, near Dakar, three minutes from the ocean. A very ecological project, notes the young woman, since Linux is free software, unlike Windows. "We don't have to buy this software, which can be used on a recycled computer. Schools can have access to the technology, at a lower cost." This African experience remains imprinted in Catherine's heart, who hopes to have the opportunity to return there one day. "We lived with families. We lived like them. They gave me the Senegalese name of Fatyma. I remained very attached to my family there. I really liked the type of approach, their way of interacting with others. It's another world, calm, where there is no time, where we are not by a minute. I loved it." Social commitment began for Catherine in high school. She has a list as long as her arm of school and community committees and organizations that she has collaborated with over the years, all the while maintaining good academic results. Here are a few examples: she has led scientific discovery workshops for young people, helped with homework, given swimming lessons to people with disabilities, in addition to the many student committees she has supported. "It is very important for me to maintain a balance between academics, social issues and family life." The young woman also thanks her parents whose support, throughout her studies, relieved her of "financial concerns" and allowed her to give time here and there. This did not prevent her from also working, for eight years, at Sainte-Marie de Beauce, as a lifeguard and swimming instructor, from giving lifeguard and lifeguard courses and from acting as a first aid worker. This fall, Catherine began a master's degree in education at UQAR, on the Lévis campus. "It's a small university, very human and personalized, where the teachers, even if they are overloaded, spend a lot of time with their students." In addition to her classes, she does substitute teaching in schools in the Beauce-Etchemins school board, where she is also responsible for a reading clinic for students in difficulty. And what about her plans after that? "You never know what might happen. Maybe one day, a school principal?" she dreams. MCaouette@lesoleil.com

## ###ARTICLE\_START### ID:79

Frenchwoman Florence Le Cam works on news blogs within the journalism studies network at Laval University in Quebec. She analyzes the impact of these self-publishing tools in the media field. What is the power that blogs have gained from the other side of the Atlantic? News blogs have become really popular since the Iraq war. These online self-publishings have enriched information thanks to an alternative processing method and provoked two types of reactions: one, enthusiastic, seeing it as the advent of a true democratization of information, the other, more circumspect, raising fears of growing confusion due to the non-professional nature of these sites. During the last presidential campaign in the United States, blogs also played a role in monitoring and verifying information. However, their impact remains quite limited in terms of audience and concerns more the media environment itself. Is this a new counter-power to that of the official media, as we hear? These blogs can act as a counter-power, not politically - their sounding board is still too weak - but within the media field. In this sense, it is a new form of participatory or open-source journalism that encourages the exchange of information, thanks to the possibility of leaving messages in open comment spaces. The host of a blog even ends up in some cases occupying a secondary place, especially since his readers are often peers, bloggers themselves, journalists, experts, etc. It is perhaps this aspect of "co-construction" of information that gives blogs their side of permanent monitoring. Does this mean that everyone can become an influential blogger? The current frenzy of online self-publications is linked to the trivialization of turnkey publishing tools available for free. The ease of creating a blog encourages the circulation of opinions. But amateurism has its limits, since the popularity of a blog depends above all on its legitimacy. The latter is based on recognition by peers, that is to say, blogging communities, and is assessed in particular by the importance and relevance of external contributions, the number of citations and reprints, etc. What is the sustainability of these editorial enterprises? These blogs live with the news that feeds them and generally die when their theme crumbles and loses importance. Others then come to take their place, in a sort of permanent self-regeneration. Far from being a weakness, this ephemeral and spontaneous character on the contrary gives a particular editorial vigor to these publications.

## ###ARTICLE\_START### ID:80

I often make the comparison with a safe manufacturer to illustrate my point. Imagine that there was only one safe manufacturer in the world. Or that this manufacturer controlled 95% of the market. All the thieves in the world would therefore have to concentrate on a single security mechanism. And the attacks would come from all sides. This is somewhat what is happening with Microsoft's Internet Explorer browser. Is it really less reliable or is it because the criminals have no interest in attacking other manufacturers who often occupy less than 20 or 10% of the market? That's what the future will tell us. Mozilla's Firefox, version 1.0, is experiencing a meteoric rise in the ranking of Web browsers and may eventually become a victim of its success. In about twenty days, since its launch, the new version has been downloaded nearly eight million times according to the site www.spreadfirefox.com (from where you can also download it). Bill Gates has no alarming reason to sell his Microsoft shares yet, but a 2% drop in market share usually gets his immediate attention. Expert evaluators also note that Firefox is well-designed and reliable. The great particularity comes from the fact that Firefox is open-source. This means that there is no hiding its design and that anyone capable of doing so can contribute to its development. The site even takes care to compare the functions between the two as well as to offer a small glossary so that you can recognize the equivalent terms from Internet Explorer to Firefox. (Ex: Refresh becomes Reload). Download.com, the site that specializes in downloading shared software, has a 95% satisfaction rate among people who have tried it. It is also available in French. Further proof that it is a war to the finish in the field of web browsers, Netscape, which unveiled its new version by invitation only, openly says it uses Internet Explorer modules and exploits the control and flexibility of Firefox 1.0. To be continued. A computer to read better According to a study conducted among 15-year-olds, as part of the Programme for International Student Assessment (PISA), their reading skills increase with the number of computers at home. PISA studied different variables influencing the reading skills of 15-year-olds in 32 countries, including Canada. Knowledge in mathematics and science was also the subject of other analyses. From this part of the study, a positive association emerges between reading test results and access to a computer at home. This positive association even increases with the number of computers at home. In Canada, over 30,000 young people participated in the program in 2000, from 1,000 randomly selected schools in all 10 provinces. Do you have any questions? Please feel free to contact me at ww. Yannick. net/services.

## ###ARTICLE\_START### ID:81

Don't think that this only happens to others! Between hackers looking for exploits and viruses on the loose, spyware that transmits your little secrets and parasitic programs that slow down the system, no computer is safe... And while Macs are still relatively unaffected by the majority of these threats, Windows PCs remain largely vulnerable. Here are some simple recipes to avoid minor embarrassments and major problems related to computers. The first measure to consider is to protect your computer using a "firewall". This type of software allows you to close the virtual doors through which intruders or spyware pass to enter the PC. Each computer connected to the Internet exchanges data with servers via different virtual pipes called "ports" and identified by a number (port 80 for websites, ports 110 and 25 for email, etc.). Since each computer has 65,535 such ports, as soon as one of them is open, it is a godsend for the prying party who seeks to visit your computer. So install a firewall that will only leave open the ports that your PC really needs to use, either in the form of commercial software (Norton Personal Firewall or McAfee Personal Firewall Plus, for example), or in the form of "shareware" (such as Zone Alarm, Kerio Personal Firewall, Outpost Personal Firewall or Sygate Personal Firewall). Periodically check your PC for viruses by carrying out an online scan on specialized sites. And preferably install an antivirus that will automatically detect and eliminate viruses on your PC (Norton, Panda, McAfee, PC-cillin, Kapersky, AVG, etc.). Another essential measure: get rid of "spyware", these spyware programs that claim to improve your Internet browsing (or that install themselves without your knowledge) and whose goal is to saturate your PC with advertising banners, record your actions and gestures to transmit them to an advertising server or even collect certain confidential data that will be used to feed dubious databases. To top it all off, they make your PC particularly unstable. Regularly run at least two or three detection programs such as SpyBot, AdAware or Spy Sweeper. Beware of certain products that claim to eliminate "spyware" and which are in fact spyware themselves. Once your PC is cleaned and protected, you still need to take certain precautions to prevent the same causes from producing the same effects. Start by using reliable applications that are not suspected of security breaches. In particular, replace Internet Explorer and Outlook Express, which are prime targets for viruses and spyware, with the free software FireFox and Thunderbird, which stand out for their quality and resistance to all kinds of threats (advertising window blocking, integrated Google search, tabbed browsing for the former, anti-spam filtering for the latter). Always be wary of file sharing programs like Kazaa, eDonkey, Morpheus or iMesh, which contain spyware. Read all the warning windows (most often in English) that appear when you connect to a server or install new software: some clearly show their true colors by indicating that you will receive all kinds of advertising messages or that your personal data will be recovered if you click on "OK"! Also be careful with instant messaging programs like MSN Messenger, which allow hackers to exploit certain security flaws. Never enter your personal email address on an unknown website or when filling out a download form: create an email address in advance on a free service such as laposte.net or yahoo.com that will be used only for this purpose. In addition, you will be able to consult your messages using a browser without repatriating them to your computer and eliminate unwanted messages remotely. This is the only way to guarantee that you will avoid 99.9% of viruses that circulate by email. Shareware firewall software Zone Alarm: http: //fr.zonelabs.com/download/znalm.html Kerio Personal Firewall: www.kerio.com/kpf download.html Outpost Personal Firewall: www.agnitum.com/ download/outpost1.html Sygate Personal Firewall: http: //smb.sygate.com/downloadbuy.htm Online antivirus scan www.secuser.com/ antivirus www.pandasoftware.com/ activescan/fr/ activescanprincipal.htm http: //housecall.trendmicro.com/ Spyware detection SpyBot: www.spybot.info/fr/ download/index.html AdAware: http: //lavasoft.element5.com/french/support/download/ Spy Sweeper: www.webroot.com/ downloads Internet browsers Firefox and Thunderbird: www.mozilla-europe.org/fr/ products

## ###ARTICLE\_START### ID:82

A few weeks ago, American artist David Byrne and Brazilian Minister of Culture, singer Gilberto Gil, released a compilation CD by authorizing their audience to copy it or share it on P2P sites. Strange behavior? Not quite. The spectacular gesture of these big names in international popular music was intended in particular to shed light on the Creative Commons project, a concept of variable geometry copyright, adapted to the digital world. In the physical world, copyright constrains the user of content to strict behavior, while Creative Commons allows creators to define for themselves under what type of license they intend to distribute their works. This idea of creating a new type of license adapted to the digital world, more specifically the Internet, has been germinating since 2001 at the Stanford Law School Center for Internet and Society. Free software, which does not belong to anyone and is developed by a community of users, and shared works therefore lead us to rethink the way to determine the economic value of content circulating on the Internet. Let's take the work of Luc Martinez, a composer from Nice and a specialist in performances involving participants spread across different parts of the planet. For example, he coordinated creations where artists delivered a live performance in Brazil while others completed the creation on a stage in France. "How," he asks, "do you pay for a piece where artists from different practices come together in different places and create an interactive work?" Until sustainable solutions are found and accepted, artists in the digital age must still survive on the Internet. "Rather than waiting to be paid with royalties that may not come, many artists sell them to centers or other companies. For the moment, that's where we are," summarizes Luc Martinez. Zack Settel, a composer originally from New York and now a Montrealer, knows full well that he won't make a living selling his CDs. However, he knows that his work has a much better chance of being known and appreciated via the Internet. "This is also the case for most musicians. We know that today's multinational record companies are also publishers and still profit from musicians through the current copyright system." Zack Settel, like so many other creators, does not fear the profound effects of the digital age on creation. "There is," says the musician, "a real movement of artists open to new practices, a movement that continues to grow. This new wave of creators no longer hesitates to share data, it will eventually become common practice. I'm not afraid that it will change, but I am afraid that we will lose a lot of time." It may indeed be that awareness will take much longer than expected, even on the creators' side. Arianne Moffatt wants to dive in "In anti-piracy campaigns," notes Biz of the group Loco Locass, "the artists' sympathy capital is used by an industry that wants to save its skin. When we shout at the public not to pirate music because we harm artists, I find it tearful, ineffective and even pathetic. Obviously, it pisses me off that someone copies a Loco Locass record, but it always depends on the context. The relationship between the artist and his public remains an emotional relationship, you know; if someone copies my music to discover it, we will end up paying for it if the test is conclusive. The commercial success of our new album (fourth in the best-sellers charts), in this sense, is due to the success of the song Libérez-nous des libérals that we put on the Internet for free. All roads lead to Rome and even to the CD-Rom!" Arianne Moffatt, who has already spoken out publicly against free and unauthorized downloading because it reduces her income as an artist, no longer holds exactly the same speech. "The amount of new things I discover on the Internet fascinates me. I also have the feeling that my next album could be my last album sold in stores. My music will eventually be released on the Internet, I think, it makes you wonder if the very notion of an album will not end up disappearing! The question now is how we are going to make a living with music on the Internet. We must dive into this digital world while setting up a system that will allow us to live off it." TOMORROW: Latecomer Canada will update its copyright law.

## ###ARTICLE\_START### ID:83

THE WAR of web browsers has started again. For the first time in its existence, Internet Explorer is losing market share. According to a study by the Xiti analysis firm, published at the end of November, it has fallen by around 2% since the beginning of September. The dominance of Microsoft's software remains overwhelming, however. Faced with the different versions of Mozilla, Netscape, Opera and Safari, it still holds between 90% and 95% of the market share. This decline - still slight - of Internet Explorer is due to the successful launch, at the beginning of November, of a new browser, Firefox, developed by an American non-profit organization, the Mozilla Foundation. This is relayed on the Old Continent by Mozilla Europe, a French association under the 1901 law. This new competitor to Internet Explorer can be downloaded free of charge from the Internet, and belongs to the world of so-called "free" computing: transparent, its source code - its "recipe", so to speak - can be consulted and modified by users. According to Xiti, the study of traffic on several hundred sites, between the beginning of September and the end of November, highlighted a gain in market share for Firefox of around 1.5%. This growth, achieved in a short time, establishes the software as "a real alternative to Internet Explorer", indicates Mathieu Llorens, head of research and development at the research firm. This success is not denied by Bill Gates' firm. "In a way, it saddens us", says Bernard Oughanlian, technical director of Microsoft France. But it is ultimately a good thing: it pushes us to question ourselves and it raises a certain number of good questions." Although its launch has been widely publicized, Firefox is not, however, a total novelty. And this despite the addition of new features (tabbed browsing, blocking pop-up windows, etc.). The program is in fact just a new version of the Mozilla software suite, whose history is rooted in the beginnings of the Internet and the first battle of the Web browsers, won by Microsoft. To understand, we have to go back to 1994, and the creation of Netscape. The rise of this software, among the first browsers, was quickly countered by Microsoft, which, in the mid-1990s, introduced its own navigation program in its Windows operating system. This maneuver crushed Netscape and reduced its market share to a bare minimum. In 1998, Netscape decided to make public the source code of its browser and thus give it a second life, as free and non-commercial software. "Later, in 2002," says Tristan Nitot, president of Mozilla Europe, "around 200 engineers, employees of Netscape, formed a group, called Mozilla.org, within which they continued the development work. » Based on earlier versions of Netscape, the free and open source software they developed changed its name to Mozilla. When, in the summer of 2003, AOL Time Warner, the new owner of Netscape, obtained $750 million (€566 million) from Microsoft, following a procedure launched several years earlier, Mozilla.org was dissolved and the majority of the staff was laid off. Several engineers then created the Mozilla Foundation, which became independent and received a grant of $2 million (€1.51 million) from AOL Time Warner. Firefox is therefore the latest avatar of the Mozilla line. The reasons for its recent growth are partly due to a new and simplified ergonomics. "The developers of the Mozilla Foundation worked on a new graphic identity," explains Mr. Nitot, "but also to simplify the use of the software by returning to certain advanced functionalities that the majority of Internet users do not use. » Boosted by the development of broadband, which simplifies downloading large files, Firefox also benefits from a good level of security. Several independent organizations have recommended its use instead of Internet Explorer. This is the case of CERT-IST, a center for responding to computer attacks founded by a French industrial consortium. Without definitively condemning Internet Explorer, CERT-IST recommends not using it "on sensitive workstations, when security flaws have been discovered and have not yet been corrected by Microsoft." "On these topics, we are not at the end of our efforts," admits Mr. Oughanlian. "But the majority of problems concerning Internet Explorer are corrected in Service Pack 2 [the latest update of Windows XP]." However, as Frédéric Martinez, security engineer at CERT-IST, explains, "despite real efforts in terms of security, Internet Explorer attracts a lot of malicious intent because of its dominant character on the market." In short, a hacker who discovers a flaw in Microsoft's browser software can exploit it on a larger number of computers. Moreover, as Martinez explains, "Internet Explorer is very tied to the architecture of Windows: taking control of Microsoft's browser can allow you to control the entire computer, which is not the case with Firefox."

## ###ARTICLE\_START### ID:84

Ouagadougou - In Ouagadougou, the capital of Burkina Faso, a new computer costs 1.2 million CFA francs. That's nearly ten months of the average civil servant's salary. However, the city is full of cybercafes. Even in the most remote villages of Burkina, as long as there is electricity and a telephone, there are now small cybercentres, often built on the beaten earth, where, for a few cents, anyone can send an email or get information on the Internet. Landlocked in the heart of West Africa, 1,000 kilometres from the nearest port, Burkina Faso could no longer do without the Internet today. No technology has spread so quickly on the African continent, explains Pierre Ouedraogo, of the Francophone Institute of New Information Technologies. "When the automobile appeared in Africa, Africans were never able to become manufacturers. Building a car requires capital and know-how that are still inaccessible to most African countries. But making software requires only a computer, an Internet connection and good programmers. Nothing prevents Africa from becoming a player in the information society." Nothing, except access to software, the licenses of which cost a fortune, and especially to the source codes of computer systems, essential for developing new applications. This is why many African companies are abandoning traditional Microsoft systems in favor of open source software such as that of the Linux company. And this does not only concern computer wiz kids. The Central Bank of West Africa (which is the central bank of the countries in the region) has started converting its 250 servers to Linux. Soon, the 2,500 computers on which its employees work will no longer run Microsoft Word but a free office software called Open Office. It is estimated that the bank will save about $3.5 million per year in this way. Burkina Faso's national electricity company, Sonobel, has decided to follow suit. This represents savings of more than $150,000. Within a few years, most of Burkina Faso's major companies will have switched to free software, estimates Sylvain Zongo, president of the Burkinabe Association of Free Software Users. "The fundamental advantage is that it's free," he says. "African companies spend a fortune on license renewals. Not to mention updates and purchasing new versions. If they don't renew their licenses, they risk being sued. But above all, free software gives access to the source codes and therefore offers the possibility of developing our own applications." Sylvain Zongo worked for a long time on Sun System workstations, which the Research and Development Institute (IRD), a research organization, used for its messaging. Since the institute could not afford to buy a second license to provide an emergency system, each time the device broke down, it had to be shipped to France and waited several weeks for it to return. With Linux, Sylvain Zongo recreated the same services on two or three computers without having to pay anything. In the event of a breakdown, a computer is now ready to take over. 100 kilometers from the capital, Étienne de Boizeron has just returned to the country where he spent part of his youth. In a small office on the first floor of the White Fathers' mission, he works on creating software to compose texts and correct their spelling in a dozen local languages. "In the 1970s, you had to modify typewriters with a soldering iron to introduce the special characters of these languages," he says. "Today, the computer makes things easier." But it is only in the last four years that the Unicode standard has unified the repertoire of symbols needed to transcribe African languages. For example, many Lyélé words take both an accent and a tilde (~). So you have to type three keys. Étienne de Boizeron could not make spell checkers if he did not use free software. He would be reduced to waiting for Microsoft to one day adapt its spell checkers to Dioula, Foulfoude or Lyélé. But free software does not solve everything. In Mooré, Étienne de Boizeron's task is relatively simple since the majority language of Burkina has long had an official grammar. But the spelling of other languages has often not yet been standardized. "This work will contribute to stabilizing these languages," he says. The big names in computer science are not indifferent to the progress of free software. Last October, as African free software users met for the first time in Ouagadougou, Burkina Faso's Ministry of Education signed a contract with Microsoft to equip schools with Windows computers. The government cannot afford to refuse such an offer, says Sylvain Zongo. "But it's a very bad thing. First, the computers are used. Then, one day, the licenses will have to be renewed. Finally, all the technicians will be trained in Windows. This will create a captive clientele unable to switch to other software." Sylvain Zongo is nevertheless convinced that with free software, Burkina could one day follow in Southeast Asia's footsteps and design its own computer programs. In the meantime, just over half of Burkina's localities still do not have access to a telephone line. "But if we get started," says Sylvain Zongo, "it can happen very quickly."

## ###ARTICLE\_START### ID:85

Faced with competition from free software in the public sector, Microsoft is counterattacking. While Bill Gates, the big boss of the world leader in software, has concluded several partnerships (Unesco, Dassault Systèmes) during a brief visit to Paris, Christophe Aulnette, 42, CEO of Microsoft France, is creating a specific "public sector" division with increased resources. Within three years, approximately 900,000 software licenses for public sector computer workstations must be renewed, or nearly 300 million euros, according to Renaud Dutreil, Minister of the Civil Service, who nevertheless wants to "halve the State's software bill". In addition, France, ranked at the top of the most enterprising European countries in terms of e-administration (90% of its administrative forms are now accessible online), wants to continue this effort, which is considered a gain in productivity and costs. According to the Ministry of Civil Service, it is the "basic" office automation that is at stake, i.e. software, operating systems, e-mail and Internet browsing. "Free software can be very expensive, if you take into account development and maintenance costs," says Christophe Aulnette. This ESNT graduate began his career at SDP, an IT services company specializing in software engineering workshops. In 1988, he joined Microsoft France and quickly played a crucial role in the development of major accounts, strategic partners and consulting activities. After working in Tokyo, at the headquarters of Microsoft Asia, he was entrusted with the helm for the entire South Asia region, heading seven subsidiaries from Singapore, then returned to Paris in 2001 to head the French subsidiary. Today, to take up the challenge set by the government, he has entrusted the reins of the new division to Eric Bignand, 42. This graduate of public works (ESTP) has held management positions at IBM, including that of director of the public sector market for France, Belgium and Luxembourg. He is now tasked with defining and implementing the strategy of the French subsidiary on this specific market.

## ###ARTICLE\_START### ID:86

It grows a little more each day. The free encyclopedia Wikipedia (1) even reached the milestone of one million articles in all languages in September. Among the enrichments made to the French version in recent days, a text on the director Aki Kaurismaki, the recipe for the sauce for Big Mac, a draft on plasma physics. Eclectic, Wikipedia is "collaborative", any Internet user can participate and add their grain of salt to the virtual edifice. Its birth certificate, in January 2001, is American. It was created within the Internet Bomis company, specialized in the sale of advertising and erotic images on the network. In the role of Diderot ("[1713-1784], 18th-century French writer and philosopher"), a shrewd American named Jimmy Donal Wales ("born August 8, 1966, also known as Jimbo Wales, is a businessman, born in Huntsville, Alabama. He is married and lives in Saint Petersburg, Florida, with his wife, Christine, and his daughter, Kira"). How did the Wikipedia enlightenment come to Jimbo? The founder explains, between two planes: "I had the idea of a free encyclopedia after seeing the success of Linux, Apache, and all the other open source software that was spreading on the Web." Yoruba. With what word Wikipedia began, history does not say. In any case, it is buried in the mass today. A million articles, more than 62,000 in French, nearly 100,000 in German and Japanese, but also in Yoruba ("spoken by about 25 million people in Nigeria"), Breton ("island Celtic language of the Brittonic group") and Ido ("constructed language derived from Esperanto"). It is one of the 400 most visited sites in the world. How is this voracious encyclopedia built, which today requires thirty servers at a Florida host? Thanks to donations and volunteers from all walks of life. "Wikipedia seems anarchic," explains Florence Devouard, vice-president of the Wikimedia Foundation and French driving force, "but the system works by feedback control, which stops any excesses." Who stops vandals from adding false information? The community itself. The list of changes made is displayed in real time and, for each article, there is a revision history. Some participants deemed trustworthy, called "administrators", can delete passages. For example: on the page of the "rule of three units" in the theater section, an Internet user had insidiously added on Wednesday an "et allez l'OM!". Which was immediately removed as soon as the slogan was spotted. "We also find "hello, it's me", "kisses to all" and sometimes insults", says Vincent Ramos, administrator, who also ensures that this kind of graffiti is quickly erased. This 28-year-old literature teacher from Montpellier became passionate about the project in June 2003. He has since made 11,000 contributions. His specialty: linguistics, Greek and Latin. He also monitors the fluctuations of the 1,668 pages for which he is responsible and often goes to discuss them in the "bistro" (IRC, Internet Relay Chat, which allows you to chat in real time with other users). The French Wikipedia, born in the spring of 2002 and which has just founded an association, has about a hundred contributors per week. Heatwave. Wikipedia has its detractors, who doubt its reliability. The criticism comes in particular from "hard" encyclopedias. Thus, in the American daily Boston Globe, a senior official of the venerable Britannica pointed out that Wikipedia has neither an editorial board, nor an editorial line, nor a team of researchers responsible for writing, nor a verification team. "Our advantage is continuous updating," defends Florence Devouard. "During the heatwave, we worked live, we also relayed the beheading of Nick Berg or the death of Arafat, always sourcing the origin of the information and maintaining our neutrality." Another news extension is planned to be launched in ten days, in English initially, called "wikinews." Encyclopedists ("an encyclopedia is a work in which one attempts to deal exhaustively with the whole of human knowledge") would also play the role of journalists ("a newspaper is a document which lists in chronological order a certain number of events for a given period [generally a day, from which it takes its name]")... Isn't decantation the privilege of the former? (1) From wiki, meaning fast in Hawaiian, and pedia, from the Greek paideia, which means education.

## ###ARTICLE\_START### ID:87

Several years ago, when we were having fun experimenting with the possibilities offered by technological tools by making Internet radio, one of my colleagues in the written press with the same last name as me stated in an interview that the coming years would be those of consumer revolt. On that September 4, 1998, the other Dumais declared that, with the arrival of increasingly powerful machines, a day would come when consumers would abandon new devices and instead favor the reuse of devices considered obsolete by others. Since then, a lot of water has flowed under the bridge, and my namesake's prediction has not quite come true. With prices that continue to fall, consumers have instead opted for new machines, loaded with the latest peripherals. However, it seems that, today, my colleague's vision has come true. Indeed, several large companies as well as the various levels of government are renewing their computer fleets or are about to reinvest massively in this area. However, we note that this reinvestment is accompanied by the creation of a new type of market: that of the resale of used computer equipment. For over a year, companies specializing in the purchase and resale of computers that are said to be obsolete have continued to emerge. For the most part, the work of a single man-orchestra, who is at once owner, buyer, seller and technician, these micro-enterprises offer consumers computers purchased in batches of 20, 30, 50 or 100 machines. The most conscientious inspect and test these computers and cannibalize those that have no hope of finding new owners in order to offer their customers a functional device accompanied by a small guarantee. Ideal for everyday applications Consisting mainly of PIII type computers, these machines are most often acquired by people looking for a second or third computer for the home. Low-income people who do not want to be left behind on the information highway are also among the typical clientele of this type of business. Let's be realistic: these computers are especially not intended for video game enthusiasts. Indeed, the very latest generations of PC games require a lot of hardware resources in order to offer a satisfactory experience. Fans of the latest Quake, move on and don't ask for anything. However, these devices are perfect for those who want to install Windows 2000 or XP, the most popular office suites, current Internet applications and even recent games. A game like Syberia II for example feels perfectly at home there. And what about those looking for one or more computers in order to install the Linux operating system? These are perfect machines in every way. Linux and the most popular free software run on these devices without a hitch. Social integration But what are these recycling companies? The best known of these companies working in the recovery and recycling of computers is without a doubt Insertech Angus, a social integration company that we have mentioned a few times in these pages. Since its opening, Intertech Angus has offered young adults struggling with difficulties the chance to take charge of their lives and learn a trade in order to reintegrate the job market. According to Insertech, 90% of participants in this program return to the job market or, better yet, resume their studies. At Insertech, you can find used computers, PII and PII as well as new devices. Used machines are complete, that is to say, they include the computer itself, RAM, a hard drive, keyboard and mouse, network, sound and video cards, a CD player and the operating system. All that remains is to add a screen to this set and start using it immediately. As I mentioned above, there are also several small micro-enterprises that are taking advantage of this new vein. Unlike Insertech, which is a well-established company, these small companies come and go over the months. Separating the wheat from the chaff So, how do you separate the wheat from the chaff and find those that will offer a competitively priced device in good working order? In this case, nothing beats good old word of mouth. For example, several of my acquaintances recently told me about Orustech, a small reseller located north of Montreal, which mainly offers computers from renowned brands, such as Dell, Compaq and IBM, at more than competitive prices in addition to offering honest after-sales service. Unlike some of these other "one man shows", Orustech only sells with an invoice and, according to my acquaintances who return there regularly, its owner does not have any problem with a machine that has a component that is missing. And just like Insertech, it offers a 30-day warranty on the devices sold. Having visited the place, I can tell you that the place doesn't look like much, but after discussion, the one-man band seems competent. By searching a little on the Web and visiting some online classifieds sites, you will find several other of these merchants who offer their products and services. A few tips? Before concluding a purchase, ask for an invoice with a written guarantee, don't hesitate to ask to test the devices you want to buy before leaving the store, ask your friends and acquaintances to find out a little more about the reputation of the said store. A visit to local technology discussion forums is also a must, because it is a place where most of the time mutual assistance reigns between Internet users. Don't be afraid to inquire and ask for references on the different recycling stores. For those who want a reliable, high-performance and honest device, and who have to deal with a tiny budget, buying a recycled computer allows you to save hundreds of dollars on a new one. Similarly, families who want to acquire a second or third device also have every interest in looking at companies like Insertech Angus or Orustech. There is no doubt that they will find a product that exactly meets their expectations. mdumais@ledevoir.com

## ###ARTICLE\_START### ID:88

EVERYTHING had been planned, scripted, timed. The "interview" granted on Wednesday, November 17 by Bill Gates to the National Confederation of Junior Enterprises (CNJE) - which brings together 119 of these associations of business school students and apprentice engineer entrepreneurs - was not a casual conversation. The CNJE, of which Microsoft has been a sponsor for three years, had carried out real lobbying work. Three months of negotiations with the American headquarters and the sending of a thick file listing the topics discussed, to win the privilege of receiving the emblematic founder of the world's leading software publisher. On site, the questions of two interviewers were therefore prepared, as were those, at the end, of a few students in the room. In front of an audience of 900 candidates for entrepreneurial success, Mr. Gates was able to calmly unfold a well-rehearsed show. And he did not disappoint. True to his image and his character, he wore his "uniform": open-collar shirt, loose locks of hair and the eternal round glasses of a good student, always amazed by technology and surprised by its success. "We have kept the valiant and dynamic spirit of the start-up," says the boss of a behemoth with a turnover of 32 billion dollars and 55,000 employees. "We are a big family of people united by the same passion for IT." The rivalry with Apple and Google? "These are companies with a great track record and Microsoft loves competition," says Mr. Gates, pretending to forget that the Windows operating system equips 95% of the computers on the planet, and that Microsoft has been sued twice for abuse of a dominant position in the United States and Europe... The threat posed to the group by the rise of free software like Linux? "Most companies will work with Microsoft and with Linux. "Our added value is different," argues the American boss, who nevertheless cuts the price of his licenses and even reveals the manufacturing secrets of his software to certain countries to prevent them from converting to free software. Finally, any advice for junior entrepreneurs? "Focus on an idea, not because it will make you a lot of money but because you are passionate about it and you think it will revolutionize the world." The two are not incompatible: Mr. Gates is at the top of the ranking of the richest bosses in the American magazine Forbes, with a fortune estimated at 46.6 billion dollars at the end of 2003.

## ###ARTICLE\_START### ID:89

The November issue of Wired magazine is on the newsstands, and with it the famous CD that has been making a big splash since September (1). Not only because it is an enticing compilation of 16 unreleased tracks, with only the best: ex-Talking Heads David Byrne, Brazilian star and Minister of Culture Gilberto Gil, the Beastie Boys, The Rapture, Chuck D, Matmos and Le Tigre, but because it is the first album that encourages listeners to freely copy the tracks, exchange them and even sample, bootleg and remix them. At a time when the majors are waging an increasingly virulent offensive against free music, the operation aims to promote the work of Creative Commons (CC), an American association that campaigns for a more flexible version of copyright, by offering artists the opportunity to define a custom license for themselves, according to the uses they want to authorize. CC licenses, which are inspired by the open source movement, aim to facilitate the use and reuse of works, without having to first request authorization as is the case with classic copyright. Right to sampling. To the usual "all rights reserved", CC opposes "certain rights reserved", the objective: to take into consideration new uses such as the remix culture, while protecting the authors. The compilation also features DJ-producer Danger Mouse, a symbol for those who remember the recent media frenzy caused by his Grey Album. An unorthodox mix of Jay-Z's Black Album and the Beatles' White Album, banned by Emi and propagated on the network by the anticopyright activists of Downhill Battle (2) who claim a right to sampling, otherwise, they believe, "the majors will continue to use copyright in a reactionary and narrow-minded way and inhibit creativity and innovation". Two licenses. The Sampling License and its variations, developed by Creative Commons, is therefore timely. All the tracks on Wired's CD are covered by either the "Noncommercial Sampling Plus License" or the "Sampling Plus License". It's not about doing whatever you want with these songs. The first license allows files to be shared on the Internet, but not sold, and authorizes non-commercial sampling: you can use the tracks to sample them, make something new out of them, and distribute this new work, provided that it's free (this is the license chosen by the Beastie Boys and Chuck D). The second license, chosen by thirteen of the musicians, pushes the logic even further by allowing the user not only to insert excerpts into their own composition but also to sell it. The entire CD is available on the Internet Archive and the initiators of the project have just launched CC Mixter, a community site for remixing CC tracks. You can download the tracks from the album Wired for free and legally, as well as loops, a cappella, samples ready to be remixed by other musicians. A mix competition should be launched soon. The site, still in the test phase, is open to all tracks under CC license. You can come and pick or submit your own contributions intended for the remix. (1) Libération of September 23. (2) www.downhillbattle.org. Also discover the Grey video http://greyvideo.com

## ###ARTICLE\_START### ID:90

He is the most expensive salesman in the world. Bill Gates' minute is valued at around 200 dollars, just in dividends from his own shares in the company he created, Microsoft (1). At this rate, it is not surprising that the day spent by Gates in France yesterday was extremely profitable: Bill in front of administrative officials, Bill at UNESCO, Bill at the Elysée, Bill in front of students... The day before, it was Denmark, where he met the Prime Minister, Anders Fogh Rasmussen, to talk about immigration policy. The staging of the Bill Gates Tour 2004 evokes previous vintages: the man enters the rooms with rapid steps, followed by a stream of followers, a mixture of communications officers and senior executives of the company. Serves a slightly crooked smile to the photographers, when the show is public. Then he heads off to his next meeting after having, at his choice, signed a major contract (yesterday, Dassault Systèmes), an agreement to help the Third World access the Internet (at UNESCO), discussed the future of North-South relations (with Jacques Chirac) or expressed his vision of the future (at Arts et Métiers). A showcase man for his own firm, Gates still embodies Microsoft, four years after he gave up his position as boss to Steve Ballmer. Now the "chief architect", he presents himself as the company's official thinker and regularly talks about his think weeks where he isolates himself for a week to reflect. He still poses as a billionaire boy scout, convinced that his job is to "make people autonomous" thanks to his technologies and that "all Microsoft employees are proud of what they do". He also always reacts vigorously when someone dares to mention a "policy" for IT, refusing at least superficially to consider that the omnipresence of his software could call for the slightest questioning or any reflection. And so what if his firm has undergone two antitrust trials, one in the United States and the other (still ongoing) in Europe. Or if a growing number of States, companies and individuals, worried about the omnipresence of Microsoft, turn away from its products in favor of free software, these programs born from the collaboration of thousands of computer scientists around the world, of which the Linux operating system or the Firefox browser are among the most popular. A threat of free software that Bill Gates has been struggling to push back all day yesterday. 8:30 a.m. Start of lobbying for Bill. Without a journalist, he speaks in front of several dozen "state or local government decision-makers" to extol the merits of "electronic administration" with a Microsoft twist. A prime target in a country where the government has officially called for a diversification of software suppliers and where many administrations are swapping Microsoft programs for free software. 11:30 a.m. Until now, UNESCO had encouraged countries in the South to use free software rather than Microsoft products. Mistakes corrected: Bill has signed a partnership with the institution to "reduce the digital divide" between North and South. In other words: Microsoft training and software for poor countries. An effect of the United States' return to UNESCO in 2003, a country always inclined to help its national champion? "A coincidence," swore the institution's director general. Under the watchful eye of the United States ambassador to UNESCO. 1:00 p.m. For the boss of Dassault Systèmes, Bernard Charlès, it is the consecration. Described as "very cool" by Bill Gates, his very advanced 3D software will benefit from one of the two "most important" agreements ever signed by Microsoft with a software publisher. Target customers: companies like Airbus or Toyota for the development of their models. Demonstration with a computer-generated Eiffel Tower rotating on a Word document (Microsoft's word processor) sent to Bill Gates' email. The opportunity for him to exalt new ways of working together on a global scale. 4:30 p.m. Between Bill and the man who mixed up "mouse" and "mouse" a few years ago, the chat was "exciting", they assure us at the Elysée. Nearly an hour of discussion with Jacques Chirac, at Bill's request, to discuss access to medicines in countries of the South, the digital divide, but also high-speed Internet in France and electronic administration. At a time when France wants to set up shared medical records, Bill opportunely recalled that he had just signed a major contract with the British National Health Service. 6:15 p.m. Bill takes off his jacket for a meeting with 800 "junior entrepreneurs" who have come to see "the model of business creators", as one of them says. An hour of questions and answers during which Bill discusses the importance of China, the future of home automation or recognizes the merits of Google, Apple's iPod or Linux. "Serious competitors, but we love competition", he smiles. The billionaire's final advice to aspiring bosses: "Don't work for money, but for what you believe in, for what you like to work and which stimulates your talents."

## ###ARTICLE\_START### ID:91

Today, Bill Gates, president of Microsoft, the world's number one software company, is making a visit worthy of a head of state for his arrival in Paris. He will be received this afternoon by Jacques Chirac. The richest man on the planet will then meet representatives of a "junior enterprise" club, associations of students from business or engineering schools. Bill Gates will also give in to his obligations as a business leader. Early this afternoon, he will conclude a new cooperation agreement with Bernard Charlès, CEO of Dassault Systèmes, the French software publisher controlled at 45.1% of its capital by the industrial group Marcel Dassault (majority shareholder of Socpresse and therefore Le Figaro). He will also defend Microsoft's interests in front of a hundred representatives of the administration to dissuade them from equipping themselves with free software. Another highlight will be the signing of a partnership agreement with UNESCO, the United Nations agency for education, science and culture. In 1999, at the Davos Forum, UN Secretary-General Kofi Annan outlined the idea of a "global compact", which defines "a general framework for cooperation with the business community". Faced with a lack of resources, the United Nations decided to enlist the financial support or expertise of companies. UNESCO has already signed several agreements with Aventis for the "preservation of world heritage", DaimlerChrysler for intercultural dialogue among young people, Hewlett-Packard to combat the "brain drain" from the former Yugoslavia and L'Oréal to promote women in science. Microsoft will thus contribute to reducing the digital divide. The publisher has set itself four priorities: participating in the recycling of old personal computers, contributing to the training of teachers in computer science in developing countries, opening a computer resource centre in the Maghreb and setting up a platform for sharing digital content. UNESCO will cooperate to ensure that its emblem is not diverted for commercial purposes. For example, recycled PCs will have to be delivered to all African countries, including those that represent a low commercial potential for the publisher. A sort of deposit for end-of-life computers has also been suggested by UNESCO experts, so as not to aggravate pollution in the poorest countries.

## ###ARTICLE\_START### ID:92

CEO of the French search engine Exalead, François Bourdoncle analyzes the reasons that led Microsoft to launch its own search engine, a trial version of which has been available for three days on the MSN portal. Why has online search become the strategic activity par excellence on the Internet? Access to good information is the major challenge of the networked society. The more it develops, the more the data in circulation increases, the more the search tool is central to all online activity. Querying these engines has become the second activity on the Net, after messaging. What does this represent? Thanks to the explosion of advertising via these engines, the margins are enormous. In the last quarter, Google made the equivalent of 628 million euros in advertising revenue. Microsoft wants its share of the pie all the more since its network of MSN portals, long loss-making, is now profitable thanks to advertising. Microsoft believes in this model and the search engine will be a new way to achieve maximum profitability of its consumer activities. How do you judge Microsoft's product? As usual, Microsoft is playing on gadgetry to hide the relative freshness of its technology. Its engine is nothing revolutionary but the marketing is well thought out. Microsoft hit hard by announcing 5 billion indexed pages. At this level, these figures no longer mean anything, they are showing off to impress the gallery... Behind this arrival, is there not also a defensive strategy from Microsoft that wants to protect its territory around the PC? The challenge is to integrate the search function as far upstream as possible by no longer limiting it only to the Web but by extending it to the entire computer. This is what Google has just done with its new tool, which threatens Windows' control over the PC. It is obvious that Microsoft will seek to integrate search within its operating system in the hope that this will be fatal to the competition. Is this progress for Internet users? The trend in our professions is no longer at all towards the creation of large proprietary, closed and opaque services. The success of free software is there to demonstrate it. I think that there is an aspiration for a return to the sources of the Internet, that is to say to autonomous search engines and no longer only designed as a new service brick thought for a primarily commercial use.

## ###ARTICLE\_START### ID:93

The final version of the free Firefox browser was launched last Tuesday. Nearly three million copies of Firefox have reportedly been downloaded since last Tuesday from the SpreadFirefox.com site. In just a few weeks, eight million Internet users had downloaded the pre-versions of Firefox. Now that the counter has been reset to zero, it will be interesting to see how long it will take for Firefox to cross the ten million user mark. Remember that Firefox is a browser published in free source code. Available in Linux, Mac OS and Windows versions, this Internet browser is based on Mozilla code, that is to say Netscape. With viruses, worms, spyware and malicious scripts circulating here and there on the Web, many columnists and analysts recommend abandoning the less secure Internet Explorer and adopting Firefox instead.

## ###ARTICLE\_START### ID:94

November 9 was eagerly awaited by Internet users, not because of the release of Halo 2, but for the launch of the final version 1.0 of Firefox, a new Web browser that has all the assets to dethrone Internet Explorer. It has already begun, by the way. Faster, more stable, more complete, more secure and more extensible than Microsoft's software, Firefox was developed by dozens of programmers around the world. It incorporates the best elements of Netscape, Opera, Mozilla and even Safari, Apple's browser, while remaining free and open-source. The almost final version has already been downloaded by more than eight million users, who do not hesitate to get rid of Internet Explorer and all its security problems to switch to Firefox. After elbowing and exploiting its monopoly position to impose Internet Explorer at the expense of Netscape - which earned it a nice lawsuit and a juicy fine - Microsoft has practically abandoned IE for three years, contenting itself with distributing patch after patch to plug its countless security holes. Worse, the company has even announced that it will no longer work on IE to concentrate on its successor, which will be integrated into Longhorn, the next version of Windows, whose release is now scheduled for 2006 after being postponed several times. Firefox, on the other hand, is a modern browser, developed over a period of 19 months. Inspired by Mozilla, the "open source" successor to Netscape, it offers a whole range of functions that facilitate Internet navigation. These include tabbed browsing, built-in pop-up blocking controls, smart cookie management, built-in support for RSS feeds, modular architecture that supports extensions and themes, protection against spyware that installs itself without our knowledge in Internet Explorer, etc. Of course, it supports all the standards for web page design, even if some sites do not display correctly, their designers having probably optimized them for Internet Explorer. But that's their fault, not Firefox's! And that's not all. Thanks to extensions, external modules that can be added to it, we get a whole range of additional functions, such as blocking ads and annoying Flash animations, better download management, tools to improve the display and even... the weather! Of course, Google search is integrated directly into the menu bar, and we can also download an extension that takes over the functions of the Google toolbar available for IE. In fact, there are already dozens of extensions of all types, as well as themes that allow you to change the appearance of the toolbar. An automatic update function integrated into Firefox notifies the user when one or the other of these extensions, and the software itself, have been updated. Firefox is available in French for Windows, Linux and Mac OS X. It can be downloaded from the official site: www.mozilla.org/products/firefox/index.html, but you will have to be patient. Since its release, the site has been completely taken by storm by Internet users, but the wait for Firefox is worth it. As the ad says: try it, you'll adopt it!

## ###ARTICLE\_START### ID:95

Special Envoy to Rotterdam With a computer keyboard slung over his shoulder like a guitar hero, Alexei Shulgin dances from one foot to the other, his eyes surrounded by a hybrid of glasses and camera, to the barely manipulated melody of Love Me Tender. The Russian pope of ASCII-art, who recomposed the master's paintings in coded language, is now tinkering live with the images of the room he is looking at, switching from a green-red-blue video saturation to a fake infrared. The performance lasts only the length of a song, a perfect appetizer at the Dutch Electronic Art Festival in Rotterdam (Deaf), the leading light for events devoted to new media. A love song "augmented" with pseudo-techno and tinged with humor to stick to the theme, "Affective turbulence", that the biennial of V2, the Institute for Unstable Media, organizer of new media events since 1986, has chosen. For those who misunderstood, Tuesday night's concert, a preamble to a fortnight of workshops, discussions, conferences, shows and exhibitions, was grappling head-on with the very trendy incongruity of mixing hypertechnology and analog rage. ECHOCE brings together a former member of the rock group Einstürzende Neubauten, FM Einheit, who wrestles with a giant spring amplified with a hammer and drill, a drummer with an East German look from the punk years, a mustachioed guitarist with a skull claw, and David Link, who developed the Poetry Machine. This text generator spits out ribbons of paper on stage that Jamie Lidell literally belches out, passing the papers through the grinder to add even more to the mess. The amalgam produces a raw, enjoyable energy that unites the disparate crowd of Deaf visitors, "young" people fresh out of new media universities (from Germany, the Netherlands, Austria and Switzerland), "old" artisans of interactive installations, scientists and the local public. Crisis of faith. If the turbulence was assumed at the ECHOCE concert, it has crept into the Deaf proposals. The period is delicate for the "temples" of new media, in the Netherlands as elsewhere. Economic crisis obliges, but also, more profoundly, a crisis of faith in these so-called new technologies, yesterday considered an El Dorado, today criticized for their capacity to intrude into private life, social exclusion or distance from reality. Of course, artists are still trying to invent with the Internet, mobiles, immersion... They are looking at labs like Christa Sommerer and Laurent Mignonneau, who are using the funds of France Télécom and Iamas (Institute of advanced media arts and sciences) in Japan, to invent other forms of sensitive communication, outside of speech. In Rotterdam, they are presenting Mobile Feelings, two black eggs that you touch to feel the heartbeat of your interlocutor, or even to send them a breath of air. Useless? "Technology makes us more controllable," says Christa Sommerer. In the United States, at immigration, they took my fingerprints. In Helsinki, my taxi was equipped with a webcam, supposedly for the safety of customers. Mobile Feelings is a way of asking the question: what kind of information do you want to send to others? How far do you want to show yourself?" Utopia. For Alex Adriaansens, director of V2, "even if information networks have economic, social, cultural and political effects on an international scale, they are also working on a local level, concretely". Finding the path to the sensitive, the insurmountable sensation of touch and face-to-face conversation, such is the utopia that Deaf carries. Moved to the Van Nelle Ontwerpfabriek, a huge factory emblematic of functionalist architecture, Deaf is looking for its bearings. And the turbulence remains within the lines. At the open brunch, an initiative that uses the computer jargon of "free" (1) to discuss "open systems" while picking up ideas and green olives, a speaker is reprimanded for having answered his mobile. The exhibition is still unstable "l'hallucination multisensorielle" by Eléonore Hellio and Joachim Montessuis does not work on the network due to lack of high speed. She attempts the splits between pieces that play with emotion to the point of provocation, and others that are more sensitive. The visitor leaves with the feeling of having been a laboratory rat. Asked to run on a treadmill here, which triggers images of a deserted Rotterdam, he decides nothing, is "machined" by the machine. Normal, the piece is called Run Motherfucker Run... There, his silhouette is transformed into ASCII glitter, in a playful Bitmirror. On the sensitive carpet of Gravicells, his steps become gravity curves... Emotional turbulence is not always where the leaders of Deaf imagined it. It goes beyond the technological framework, relies on open information exchange systems, like Petr Kazil, an "urban adventurer" who came to talk about the community of explorers of forbidden zones, abandoned chemical plants or military bases. A "hobby," he says, "for the sole pleasure of going to see invisible and beautiful places." How to find the attraction of the "new frontier" that was the Internet close to home? (1) Free software, as opposed to proprietary software, is said to be open to contributions, modifications, improvements...

## ###ARTICLE\_START### ID:96

STOCKHOLM from our correspondent - Being able to call your neighbor, your grandmother in Dijon or your friend in Singapore as often and for as long as you want for almost nothing is now possible with Internet telephony... and software like Skype. Launched by the Swedish company Skype Technologies at the end of August 2003, this computer application popularized this new type of communication. Its drawback: both parties must be equipped with a computer with speakers and a headset, a high-speed Internet connection permanently connected and have downloaded Skype. Its advantage: both the software and the calls are free. At a time when few Internet service providers still offer a Web telephony service, the success of this software was not long in coming: as of November 2, 14.1 million users worldwide were using Skype, 30% of them for work. The threshold of one million simultaneous calls has been exceeded. Skype boasts 400,000 users in France, making it the seventh largest user country, far behind the leader, Taiwan. Since the end of July, the company has also been offering a paid service, Skype Out. Users buy airtime online to call, from their computer, this time directly to landlines or mobile phones. The rates charged are significantly lower than those of traditional operators: 1.7 cents per minute for a call to a landline in Western Europe, for example (compared to 12 cents during off-peak hours at France Telecom). Since August, more than 280,000 people have used this service. Internet telephony could well revolutionize the telephony market: according to the British firm Analysys, it could take 6.4 billion euros off the turnover of traditional European telecommunications operators in 2008, or 13% of the residential landline market. "OBSOLETE" Skype CEO Niklas Zennström, co-founder with Dane Janus Friis, knows how to shake up traditional industries via the Internet. This 38-year-old Swede is in fact one of the founders, in 2000, of KaZaA, the most famous online music exchange network... and the number one enemy of the record industry. Mr. Zennström has since sold his shares in KaZaA; but he has kept the operating principle of this company to apply it to telephony. In both cases, communication works according to the system of exchanging files on the Web between individuals called peer-to-peer or P2P. A principle that allows a company like Skype to not have to invest in telephone networks and switches, unlike traditional operators. Skype Technologies has not financed a marketing campaign either, relying on word of mouth: in fact, any Skype user has an interest in convincing as many of their acquaintances as possible to download this software in order to be able to chat with them. "With the development of high-speed Internet, the traditional telephone will become obsolete," says Mr. Zennström. In some Asian countries, 60% of homes are connected this way. In Sweden, this will soon be the case in 50% of homes." Mr. Zennström does not want to say whether his company, financed by private venture capital, is already making a profit. The answer is probably no, but the losses are apparently small. Other paid services will soon be launched, including a voicemail. "Our goal is to charge very little, but to as many people as possible," explains the Swede, who emphasizes that its operating costs "are really minimal, unlike traditional telephone operators." Skype Technologies still has time to prove itself: an IPO is not on the agenda.

## ###ARTICLE\_START### ID:97

Le Poulpe is currently deploying its sprawling modules in the 994 m2, the new premises invested by Instants Chavirés, a concert hall that is a refuge for all types of adventurous music, at the initiative of the Lieux communs festival (read below). The CIA, the intervention cell of Apo 33, a sound art collective from Nantes, has woven an impressive spider's web at the crossroads of rue Emile-Zola in Montreuil, on the façade and in the entrance of the building. A network of wires covered in microphones that react to the environment, absorbing and reflecting the tiny disturbances of the place, blurring the boundaries between outside and inside, materializing the invisible networks of circulation of flows and communications in a versatile buzz. In July, during the Scopitone festival, the collective deployed a similar device, the Mobile Radio Device (DRM), sound capture systems grafted onto several locations in Nantes (shipyard workshops, Blockhaus, private apartments, etc.) physically connected by Tax-son (a taxi that transported listeners from one space to another) and virtually on the network, since in each location one could listen to audio streams coming from the other locations. "What the network allows is a play with the context, to give a hearing to a reality that comes from elsewhere and reintegrate it into another context," says Luc Kerléo. Web radio. The network is at the heart of the collective's experiments, which are actively working on setting up a space for sound creation on the Net, in particular through its web radio project. "Web radio has been an opportunity for us to set up sound writing devices that integrate the data of networking, unlimited time, automation and the multiplicity of simultaneous broadcast channels," explains Sophie Gosselin, "we no longer have to go through a programming grid that limits actions in time, we can occupy a channel for hours, even days." On its web radio, the collective broadcasts continuous audio streams. In the Fluxbox directory, we can listen to sound environments, broadcast in real time. Including Julien Ottavi's stream, entitled "Architecture resonance studies." The artist has installed a device in his own apartment that evolves according to what it captures. Another variation, Audio Distorsion: Julien Ottavi in Nantes and Dion Workman in New York collaborate, via a virtual automaton, to produce a sound piece lasting six months. Free tool. The collective, a staunch supporter of free software, is also working on the development of Apodio, a tool available for free on the site, to have its own audio workstation. "Apodio allows you to work from a CD-Rom, without installing anything, it puts the best software of the moment in terms of audio creation within reach of all, explains Sophie Gosselin. This project was motivated by the desire to be able to transmit the audio creation tools under the GNU/Linux platform to a wider audience, in particular to artists who often work with proprietary tools."

## ###ARTICLE\_START### ID:98

Peter Van der Beken is a 30-year-old Belgian living in Paris. He is unemployed and one of the artisan programmers behind Firefox, the web browser launched yesterday to "offer an alternative" to Microsoft's Explorer. Unemployed? The diversity of profiles of contributors to free software, a category to which Firefox belongs, is one of their most astonishing characteristics. Where Microsoft and "proprietary" software publishers traditionally employ hundreds or thousands of employees to develop their programs, free software projects bring together a "community" scattered around the world, linked by the Internet, and with very diverse motivations. "Meritocracy". In the case of Firefox, we find the fifteen employees of the non-profit Mozilla Foundation (1), which oversees the project, but also volunteers, like Peter Van der Beken, and finally employees, made available by certain companies to work on the project. In total, there are nearly a hundred programmers, plus several thousand volunteers who participate to varying degrees: occasional interventions, translations or bug fixes. Plus all the convinced users who promote the project via the Web. For some of the volunteers, involvement in such a project is a way of proving their skills. Because it is not enough to know how to type on a keyboard to join the team: the most important programmers are co-opted. "It's a meritocracy," says Peter Van der Beken. "I was an amateur and that brought me face to face with a high-level project, with other programmers." Unlike some of his comrades who "want to remain volunteers to keep their freedom," Peter would like to eventually become an employee of the Mozilla Foundation. As for the companies that finance the foundation or second employees to it, such as Sun or IBM, the objective is more prosaic: to challenge Microsoft's quasi-monopoly. "There is a windfall effect," notes economist Nicolas Jullien. "These companies contribute to the production of industrial public goods by telling themselves that, even if they are not the leader, they might as well cooperate to avoid getting taken advantage of." For Perline and Thierry Noisette, authors of the book La Bataille du logiciellibre (2), it is "the complementarity between "altruistic" developers (researchers, tinkerers, enthusiasts) and companies contributing to the vitality of the software they use by allocating human and financial resources to it" that ensures the success of these projects. Interpretations. This mix of volunteering and commercial, commercial and non-commercial aims also gives rise to all sorts of political interpretations. Some see in free software the advent of communism, because the program designed is a public good, without a scrupulous owner. Others read in it the very essence of liberalism, because competition between developers is strong, and monopolies are threatened by this mode of production. According to Nicolas Jullien, "everyone gets something out of it. When you're a liberal, you'll talk about Darwinism; when you're a communist, about sharing. In all cases, ideology strengthens collaboration." (1) Besides Firefox, the Mozilla Foundation's main project is the e-mail software Thunderbird. (2) Perline and Thierry Noisette, la Bataille du logiciellibre, la Découverte, "Sur le vif", October 2004.

## ###ARTICLE\_START### ID:99

Free software and cooperative society status (Scop)? A priori, the link between the two is not obvious. However, for Cyril Zorman, co-creator of the company ProbeSys, the transition from one to the other was quite natural. "Initially, we did not necessarily have the idea of doing social economy. But free software is made in a community way to share knowledge. So, when founding our company, we spontaneously turned to cooperative status which gives each employee the possibility of taking part directly in the life of the company. We wanted to have a certain internal coherence." It is in particular this coherence which was rewarded, Thursday September 30, by the jury of Talents of business creation, organized by the Ministry of Economy, Finance and Industry and the network of management boutiques. Cyril Zorman and his colleagues at ProbeSys have, in fact, won the special mention of this competition in the Social Economy category. At just 28 years old, this award is a great recognition for Cyril who set up this project with three friends - Philippe Godot, Nicolas Gurret and Frédéric Hélin - who he met on the benches of the Joseph Fourier University in Grenoble during his DESS in computer science. Created in April 2003, ProbeSys is a free software services company, specializing in the Linux system. It is the diverse skills of the four friends and especially their shared passion for IT that led them to embark on this adventure. "We all have different backgrounds. I have a Master's degree in biology but Philippe and Nicolas, for example, had degrees in mechanics and geology. We had all already worked and used IT a lot in our respective jobs," explains Cyril. The result of a collective project carried out with enthusiasm, ProbeSys now seems to have a bright future ahead of it. Consulting, installation, IT maintenance, custom software development or training, there is no shortage of activities in the field of free software. With its main clients: companies, administrations and industries in the Rhône-Alpes region, ProbeSys does not rule out developing in other directions, including opportunities in Switzerland. In any case, the four Grenoble natives have gained a certain recognition by being awarded the "Talents of Business Creation" prize. As for their business policy, it has been strengthened. "Employees as majority shareholders, democracy in the company, fair distribution of results, individual accountability, this is our concept of entrepreneurship," concludes Cyril Zorman. ProbeSys, Centre Cémoi, 10 bis, rue Ampère, BP 267, 38016 Grenoble Cedex 01. Tel.: 04.76.96.67.51, www.probesys.com Alicia Gaydier

## ###ARTICLE\_START### ID:100

Will Karl Marx's communist utopia be realized in the era of globalization, via a new kind of International whose cultural revolution is taking place in the virtual world of the Internet? The open source movement, which disseminates its free software on the networks, without reproduction rights, and with as little advertising as possible, remains unknown to the general public. But it is a groundswell that is gaining strength among all those who surf the virtual ocean. The latest high-profile action of this revolution, Firefox, takes its name from the film in which Clint Eastwood stole a prototype of a revolutionary fighter plane from the Soviets, so that the free world could copy it and fight the evil Empire. This time, a small army of technicians, supported by thousands of sympathizers, cooperated to create a "free" browser, and to fight the Microsoft Empire which, strong in its monopoly, imposed its Explorer browser on almost all the computers on the planet. Just as surely as the "pirates" who exchange their files have destabilized the music industry, open source will eventually force the Microsoft behemoth to evolve, or else disappear, like the dinosaurs replaced by more agile and better adapted small mammals. This is the happy face of the Internet. And the paradoxical union (dialectical, Marxists will say) of liberal competition and collectivism: or how to move from "to each Internet user according to his means", to "to each Internet user according to his needs"...

## ###ARTICLE\_START### ID:101

Free software, of which Linux is the best-known example, is gradually finding its way into computers. It has been adopted by industry giants such as IBM and Oracle, as well as by major clients such as the New York Stock Exchange, the State of Bavaria and several ministries in France. According to a recent study, it runs 30% of web servers and 25% of corporate servers worldwide and is now attacking the most protected position, the desktop computer, where Linux's 3.2% market share is still a small fraction of Windows' 93.9%. But here too, things are changing with the breakthrough of OpenOffice, which is threatening Microsoft's Office "office suite" and even runs under Windows. Microsoft, which now describes free software as a "challenge" and no longer a "cancer" as before, recently responded by opening the source code of Office to more than sixty countries as a pledge of transparency, and is slashing its prices with its major customers by warning them of the cost of a mass migration to Linux. A counterattack that does not prevent the software giant from worrying. "In the event that free software is increasingly adopted," the company explains in its annual report to the SEC, the American stock market regulator, "sales of our products could decline."

## ###ARTICLE\_START### ID:102

With 230,000 creations per year, French entrepreneurship is doing well. However, some creations are more innovative and more promising than others. This is why the Ministry of Economy, Finance and Industry and the network of management boutiques have jointly organized the "Talents of Business Creation" competition since 2001. Thirteen winners were rewarded last Thursday, September 30, at the Ministry of Economy. Hand-picked from 1,217 candidates and 62 finalists, these entrepreneurs won over the jury with the quality and originality of their projects. From scrap metal recycling to the development of free software and the construction of wooden houses, business creation has a bright future ahead of it. www.concours-talents.com

## ###ARTICLE\_START### ID:103

An air of innovation is hovering over the Internet. While the arrival of new software is rarely a global event, yesterday's release of Firefox (1) could revive a technology that has been stagnating for almost six years. The browser is the key element that allows access to the Web. With Internet Explorer, and more than 95% of the market, Microsoft is now in a quasi-monopoly situation. However, since 1999 and version 5.5 of its browser, the Redmond firm has been content with the minimum and has not further developed the functionalities of its product. But, since September 13, the test version of Firefox, only in English, has been downloaded more than 8 million times. "We expected 1 million in ten days. There were 2 million," says Tristan Nitot, president of the association promoting the Mozilla Europe project, astonished. Irreversible. The project took root on March 31, 1998. Netscape, a company that also offers a browser, could not fight against the irreversible progression of Internet Explorer installed by default in Windows, and decided to make its source code (its manufacturing secrets) public. About fifty Netscape engineers continued to develop the product. They were supported by other developers, volunteers (see opposite). In June 2002, a first version of the browser was available. It met with only mixed success among users. In July 2003, AOL, which had in the meantime become the owner of Netscape, decided to leave the browser market, fired its development team and stopped supporting Mozilla. The volunteers who had worked on the free browser then came together around the Mozilla Foundation. "We no longer had to deal only with IT, but also with the distribution, image and promotion of our product," recalls Tristan Nitot. We decided to create a very simple to use, user-friendly browser." The mascot, the slightly austere red dinosaur of Mozilla, is replaced by a superb fox. "Faster." Last week, on Liberation.fr, more than 12% of Internet users were already using Firefox. They were only 5% in January. The final version, made available yesterday morning around 10 a.m. (French time) in fourteen languages, including French, should therefore establish itself as the major competitor to Internet Explorer. To achieve this, the foundation is not sparing any resources. An appeal launched to promote Firefox has raised $250,000 in donations. Among other things, they were used to buy a full-page ad in the New York Times. Unheard of in the free software community. The creators of Firefox, however, remain convinced that their best advertisement is the browser itself. "Compared to Explorer, Firefox is a technological leap," explains Tristan Nitot. It is faster, more practical." It can also block "pop-ups" (advertising windows). It is more impervious to viruses and spyware, so much so that Cert, an American computer security organization, has advised Internet users to use it rather than Explorer. Members of the Mozilla Foundation are already working on the next developments of Firefox. An imperative for Tristan Nitot: "We must ensure that innovation never stops." (1) www.mozilla.org or http://mozilla-europe.org

## ###ARTICLE\_START### ID:104

What is a browser? The browser is the essential software for viewing websites and displaying text and images. The Firefox browser is competing with Microsoft's Internet Explorer. 8 million downloads for the demo version of Firefox in just over six weeks. Still ultra-dominant, Explorer went from 95.5% market share in June to 92.9% last week, according to the American research company WebSideStory. What is free software? It is software, like Firefox, whose source code (its manufacturing secrets) is freely accessible, unlike that of "proprietary" software. Anyone can copy or modify it according to their needs.

## ###ARTICLE\_START### ID:105

New York - Microsoft is continuing its charm offensive to the point of burying the hatchet with its oldest enemies: a publisher of the free software Linux and especially a professional association that attacked it on both sides of the Atlantic for unfair competition. More than the agreement with the American publisher Novell, which cost Microsoft 536 million dollars, it was the peace concluded yesterday with the CCIA that focused attention, so much has this global federation of rivals of the software giant been a constant adversary in its virulence. "This is a stunning turn," commented Joe Wilcox, of the research firm Jupiter Research. Microsoft will become a member of the Computer and Communications Industry Association, "which is quite comical when you consider the force with which the president of this nonprofit association Ed Black has torn apart Bill Gates and his group over the last five years," added Mr. Wilcox. The CCIA, founded in 1972, advocates for "open markets, systems and networks." Counting Oracle, AOL and Yahoo! among others as members, it is known for having joined in antitrust proceedings against Microsoft, both in the United States and before the European Commission. In its sights: the omnipotence of the Windows operating system, equipping more than nine out of ten PCs in the world, and which Microsoft would take advantage of to impose a quantity of associated software, effectively excluding competitors. The agreement "does not provide an answer" to the lack of interoperability, reacted Ed Black again in November 2002. At the time, the American justice system had just ratified the amicable settlement of the lawsuit brought in 1998 by Washington against Microsoft. Yesterday, the CCIA announced that it would no longer seek to challenge the agreement in the US Supreme Court, but also that it was withdrawing its 2003 lawsuit filed in Brussels over Windows XP, and would no longer provide the EU with evidence against Microsoft (still on appeal in Europe after its conviction in late March). While "we may not agree on everything," it is now time to work together, Black said, stressing that the industry must unite "more effectively on key issues: expanding access to the Internet, strong support for research and development, etc." A clause in the armistice provides for Microsoft to reimburse the CCIA "for some of the legal expenses it has had to bear, in some cases for a decade," the association added. According to Joe Wilcox, the CCIA will certainly improve its finances with the addition of such a member, but it is not the only winner in the affair. "Microsoft, the Association and its other members should benefit from this new approach - my enemy is my ally - ", he estimated. "By increasing cooperation in the industry and with the government, we reduce the risks of having more regulation and more litigation (...) Security and privacy are hot topics in Congress that could give rise to laws with a big impact" on computing, continued the analyst. Microsoft welcomed the agreement with the CCIA - "an important step in resolving the conflicts of the past" -. The group also estimated at $950 million the possible charges related to the antitrust complaints that it is still subject to. For 18 months, Microsoft had already made peace with Time Warner and Sun Microsystems. The agreements with Novell and CCIA leave multimedia software maker RealNetworks alone in the camp of legal adversaries in both the United States and Europe.

## ###ARTICLE\_START### ID:106

The software world could experience a huge big bang in the coming days. Larry Ellison, CEO and founder of Oracle, the world's second largest independent software publisher, is determined to acquire the majority stake in PeopleSoft on November 19. Oracle, which has raised its offer for the fifth time in a year and a half, will pay $8.8 billion. Its ambition is to establish itself in the software market. Oracle's aggressiveness can be explained for one reason: the group is looking for growth drivers for its original market, databases, where it faces competition from IBM. Free software for databases and even for software is multiplying. With the purchase of PeopleSoft, Oracle wants to become an "information company," explains one of its managers, that is to say, to offer "software that manages all of a company's critical information." The hostile offer began in June 2003. This raid had many twists and turns. Craig Conway, the president of PeopleSoft, was ousted on October 1st. He believed that the merger should never obtain the approval of the competition authorities in the United States and Europe. He considered the price offered by Oracle too low. But the American Department of Justice, opposed to the merger, had to give its approval after the judgment of a California court. At the end of October, the European Commission also gave its green light to the merger, considering that the new group would not have a dominant position on the Old Continent. Finally, Oracle improved its offer which had started at 6.3 billion dollars. Craig Conway was also the victim of his too strong opposition to Larry Ellison. Because the affair had become a fight between two egos and two conceptions of the future of software. The recent history of software has so far proven Craig Conway right. Never before has an unfriendly takeover bid succeeded in this sector. Mergers have always been carried out with the agreement of the target's management. This was the case in the mid-90s, when IBM acquired Lotus, and more recently, in 2002, when it bought Rational Software. Last year, the French Business Objects decided to merge with the American Cristal Decisions with the agreement of the target and its major shareholders Silver Lake Partners and TPG. Last summer, when Microsoft revealed that it had considered acquiring the German SAP, the two groups implied that they had held lengthy discussions to complete the merger, which ultimately did not come to fruition. Bill Gates' firm acquired Navision and Great Plains Software to strengthen its position in business applications. Because the empire leaves little room for its competitors and confines them to the business software markets. Software publishers acquire competitors, generally of modest size, to "complete the technology portfolio", explained recently Jeff Clarke, deputy CEO of the American Computer Associates. The latter acquired Netegrity for 340 million dollars in order to complete its suite of software to authenticate users of an Internet network. "There is a very strong concentration in the software field. Growth is less than in the 2000s, even if some areas are recording double-digit growth. Now, the market has become more mature and it is in the process of structuring itself", explains Michel Bensadoun, CEO for Western Europe of Symantec, an antivirus software publisher. And to emphasize, the loss of engineers and qualified employees during the Internet bubble had been encouraged "by an overbidding on salaries".

## ###ARTICLE\_START### ID:107

The cost of renewing computer equipment is often very high. Worse still, keeping all software up to date, paying the right to use it and ensuring it works properly can end up eating into a good part of an SME's budget. Even more so if it also has a presence on the Web with an email server. To cut these costs, there are two solutions, both of which are becoming increasingly popular. The first, although strongly discouraged, is to use pirated software! Between 2001 and 2003, piracy increased by 6% in Quebec, reaching 38.6% of software in operation, according to the Canadian Alliance Against Software Theft. The second, more commendable option is to use free software. Contrary to popular belief, "this does not mean having to leave the Windows environment," assures Francis Giraldeau, of the Linux User Group at the University of Sherbrooke (GULUS). "The difference between free software and proprietary software is that you buy the former, while you buy the rights to use the latter, regardless of the operating system." "In other words, whether you use it once or a thousand times, free software costs the same. But not proprietary software." Proprietary software must be purchased and, if it is used by several users, you must also acquire a license for each use. The availability of the source code, or the programming code of the software, makes it possible to adapt so-called free software to the various platforms that currently exist (the Linux operating system, in fact, can be installed on 11 types of computing devices). This system also ensures the compatibility of old file formats. "There are PhD students who have lost their formulas because they were written in the proprietary format of MS Word 6," laments Mr. Giraldeau. "Others, who saved their papers using the Latex system (a nearly universal word processing format that dates back to the 1980s), can still use them today." Customized savings for SMEs A study by the Quebec Ministry of Education (MEQ), which has remained a dead letter since June 2001, has made it possible to evaluate the savings associated with the transition to free software in the education sector in Quebec. In its conclusions, the study Linux in primary and secondary schools: state of the situation, reveals a finding that could interest not only the MEQ, but anyone managing a small business using a computer system. Despite high transfer costs (to free software), equipping a school with computers equipped with free software could be achieved for a tenth of the current cost of computerizing a school. Without alluding to savings of this magnitude, other specialists also believe that it is possible to create more affordable solutions from free software. "We can easily extend the useful life of a computer system," says Francis Giraldeau. "That could be of interest to call centres or large stores that use several cash registers." Ludovic Marcotte, an IT architect with the Inverse group, which specializes in free software, achieved a small feat by rebuilding HEC Montréal's email system from free software. "They could no longer cover the high costs of their old system," he summarizes. According to him, small businesses can benefit from free software. "Free software is a scalable solution," he believes. "We can start by using it on a file or print server, in a completely transparent way. We can also replace less complex office applications." Lack of support? The big obstacle, according to Messrs. Marcotte and Giraldeau, the lack of official technical support remains. Their conclusion is the same on this subject: local user communities (such as those at the Université de Sherbrooke and the Université de Montréal) can help solve problems. By doing business with a company specializing in desktop solutions based on open source software, you also ensure constant technical support. "With open source software, you don't pay for the software but rather for the support that comes with it," they say. This is what leads others to say that the savings, in the end, are practically nil. "In all cases, technical support requires employee training," says Gilbert Roy, head of IT resources at the Commission scolaire des Hauts-Cantons in the Eastern Townships. Mr. Roy managed a laboratory for the Quebec Ministry of Education in which old PCs equipped with 486 and Pentium (120 MHz) processors were recycled by installing open source software. "We were looking for a way to reuse old computer equipment to increase the number of devices in the classrooms," he explains. "By using a powerful enough server and transforming the PCs into terminals, their use was extended and their performance was more than sufficient to satisfy the students." Implemented in four elementary schools, this system only required a network powerful enough for the server to share data at an acceptable speed. "Ultimately, the integration was a success," notes Mr. Roy. "The only question that worried us was whether the reason for this success was the effect of the efficiency of the software or the increased technical support for the needs of the study!" According to Mr. Roy, the cost of this technical support, which monopolized three employees of the school board, is equivalent to purchasing a license to use more popular software. Despite this drawback, Mr. Roy believes, like many, that there is in free software an alternative solution that is becoming more and more obvious to more expensive software or to piracy. The customization of the solutions and their importance justifies this growing interest on the part of SMEs. But the results of studies conducted in the educational sector and the promise of substantial savings should naturally multiply this interest. Amckenna@lapresse.ca

## ###ARTICLE\_START### ID:108

To counter the rise in piracy and avoid the costs of the most popular software, there are several solutions in the world of free software. Here are some hyperlinks that allow you to find solutions for different platforms, whether MS Windows, a Linux distribution or other. Carrefour Éducation There is an article entitled " Instructions for a legal computer at low cost ", which is intended as an opportunity for its author, André Cotte, to share his advice for those who would like to venture further into the world of free software without having to completely dive into the world of Linux. carrefour-education. telequebec.qc.ca/ Framasoft The Framasoft website defines itself as a substantial directory of free software under Windows. www.framasoft.net/ GNUWIN The GNUWIN site is a Swiss site where you are often offered points of comparison between free software and its commercial counterparts. www.gnuwin.epfl.ch/ OpenOffice The OpenOffice suite is an option that many cite as essential to the MS Office office suite. www.openoffice.org/ Mozilla The Mozilla site offers the software FireFox, a browser, and Thunderbird, an email client. www.mozilla.org/

## ###ARTICLE\_START### ID:109

The States General of Research ended yesterday with a three-minute ovation from Professor Edouard Brézin, co-president of the CIP (Committee of Initiative and Proposal) and vice-president of the Academy of Sciences. He had just presented the main proposals for reforming French research. His speech, which included some of the 70 pages of the CIP report, won the support of the vast majority of the thousand or so researchers present in Grenoble. The university presidents, for their part, regretted that the future of the institutions (CNRS, Inserm, etc.), which determines the place of the university, was not sufficiently discussed. The CIP proposals should be submitted to the government on November 9. "The CIP (1) will disappear. It has fulfilled its mission," announced its president Étienne-Émile Beaulieu, president of the Academy of Sciences, yesterday in Grenoble. The research reform proposals drafted by the CIP (our editions yesterday) should, in fact, be submitted to the government on November 9. They will still be finalized in the coming days. "If we consider the scope of the mission, the diversity of the actors and the short deadlines, we can be proud of what we have done together," concluded to a round of applause Alain Trautmann, biologist and spokesperson for the Sauvons la recherche (SLR) movement, at the origin of the protest movement last January. Yesterday, the last day of the general assembly, it was therefore time to take stock but not to give up. "We have the additional billion in the 2005 budget. But we must know what is behind it," declared Professor Beaulieu, who reaffirmed his unreserved commitment alongside the researchers' collective. "If there is no money, there will be no reform," he insisted. As early as March, the cohabitation within the CIP between representatives of the local committees of the Estates General, of Sauvons la Recherche and the Academy of Sciences had raised many questions. "I was not mandated by the government," Professor Beaulieu told all the skeptics. "It was the collective that contacted the Academy of Sciences," confirmed Alain Trautmann. The latter nevertheless acknowledged that tensions had sometimes been very high on certain points of the proposals. Transforming a protest movement into a force for proposals is not a common thing in our country. In this respect, the CIP's approach is exemplary. "The drafting of the proposals implemented a completely new process of collective reflection," emphasized Olivier Gandrillon, biologist and facilitator of the Cloeg in Lyon. This exercise in collective democracy would never have been so widespread without the Internet (2). As early as January 7, the day the Sauvons la Recherche petition was launched, email enabled the document to be distributed in all directions and extremely quickly. SLR now has a file of 130,000 email addresses that allows it to be in direct contact with all the laboratories in France and overseas as well as with expatriate French researchers supporting the movement. "By having very rapid reactions, this allowed us to avoid political errors," Alain Trautmann analyses retrospectively. As soon as it was created in March, the CIP naturally called on Bernard Monthubert, a mathematician in Toulouse, creator and editor of the SLR site. Technical choices based on the values of dissemination and transparency have facilitated access to all those wishing to know the different versions of proposals (57,300 downloads for the version of September 30). The free software SPIP (free software has source codes that are not blocked, unlike programs owned by a private company) offers great flexibility and hosting for 14 euros per year on the Apinc site (access for the non-commercial Internet) has avoided major "bugs". "The CIP site has had visitors from all over the world. We have identified among them the Ministries of Finance and Research who have made many downloads," joked Bernard Monthubert. The latter was also delighted to leave the virtual world and finally be able to put faces to email addresses. A reflection that gave Cled' 12, the cartoonist on duty, the opportunity to sketch happy researchers with egg heads. (1) Created on March 17, the Initiative and Proposal Committee was tasked by the Prime Minister with drafting reform proposals. (2) Site of the Estates General: http: //cip-etats-generaux.apinc.org

## ###ARTICLE\_START### ID:110

An alternative to Sunday boredom, SHARE parties welcome, every Sunday afternoon, the tinkerers of the New York electronic scene to the Open Air, a trendy bar in the East Village in Manhattan. From 5 p.m., musicians, DJs, videographers, performers, nerds meet to play together in open jams, audio and video improvisation sessions on laptops open to the public. The instigators of this event launched in 2001, Barry Manalog, GeoffGDAM and Newclueless, DJs and developers, were looking to remotivate a depressed electronic scene. "Under the Giuliani era, many places had to close, small clubs could not pay the license, DJs no longer had places to play. There were Warehouse parties, in private apartments, then the parties became rarer and the musicians stayed tapping away on their computers in their rooms." SHARE came at the right time to pick up all these orphans at a time when the use of mobile phones was becoming widespread in digital artistic practices. "New technologies have become very easy to transport," notes Keiko Uenishi (aka o.blaat), a Japanese sound artist, one of the core members, who we met at the Club transmediale electronic music festival in Berlin, where a relocated SHARE was held in February. "Everyone can come with their equipment (a computer equipped with sound and video software) under their arm, it's easy to invite people. For a while, it was called "laptopia", then we chose SHARE, the definition of a folder in Unix, where everyone can drop their files." Immersive environment. The programmers have developed a multi-user environment where anyone can easily connect a laptop, keyboards, a camera, a groovebox, a microphone, a Gameboy (you'll probably run into Glomag and Bubblyfish, activists of the 8-bit scene), a bass or any other instrument. From 5 to 9 p.m., you can join the jam, which can accommodate eight participants simultaneously or play alone during closed sessions. The same goes for the video jams, the goal being to generate an immersive visual environment on the bar's eight built-in screens, where the participants compose the video together. The results of these audiovisual improvisations are varied: "Sometimes, it's cacophony, but when it takes off, it's impressive. Someone starts an idea, someone picks it up and continues it, it's often magical." From a few aficionados, the SHARE attracts an ever-growing audience. “Share is a place to sing a pop song you wrote, preview a video project you’re working on, participate in an open jam with digital artists, do an impromptu collaboration, hear how your song sounds on a big sound system, meet co-conspirators for artistic projects (...) or simply relax and have a drink with interesting people,” the website says. SHARE is also a place to test the latest sound or Vjing software and, possibly, participate in the development of new IT tools. “For each need, we try to see if there is an open source solution,” explains Daniel Smith (aka Newclueless). “It’s also a place where we try things out, various skills and interests intersect,” explains o.blaat. “We try to create synergies with other disciplines like contemporary arts or dance.” Wireless Internet access makes it possible to invite remote, networked performers to these jams, as at the Phonotaktik electronic music festival in Vienna, with which they organized a Net.Jam Streaming.

## ###ARTICLE\_START### ID:111

Little by little, the bird is making its nest. The bird is Mozilla Firefox, an Internet browser that is attracting more and more Internet users. Barely released, its latest version was downloaded more than a million times in 100 hours! And while Internet Explorer was still monopolizing this market recently, it is starting to seriously decline in favor of the newcomer. According to an American analysis firm, Firefox's market share increased from 8.2 to 17.7% between January and September 2004. It is now estimated that this software is approaching 10 million users. A rather surprising fate for what is none other than the descendant of Netscape Navigator, the pioneer of Web browsers dethroned by... Internet Explorer. It must be said that Firefox, available for Windows, Mac OS and Linux, has no shortage of arguments against its inevitable rival: faster display of web pages, pop-up window blocking as standard (which can be set to allow them to open on certain sites), tabbed browsing (several pages open in the same window), integrated search area entrusted to Google or other search tools, more practical bookmark management, possibility of customization, advanced security settings, etc. The undeniable advantages of Firefox would be enough to explain the growing interest of Internet users in it. But the security problems of Microsoft's browser, its vulnerability to certain viruses, its powerlessness in the face of the proliferation of nuisances such as spyware or adware and its lack of evolution are pushing more and more users to look for alternatives to Internet Explorer. Specialists are also recommending that large companies and administrations no longer use it. Like Linux, Firefox also illustrates the quality of free software that has come to surpass software developed by major publishers. Not only in terms of speed and reliability, but also in terms of responsiveness to security or stability issues. While Microsoft takes several months before offering patches for obvious flaws (it took until Windows SP2 for Internet Explorer to integrate a pop-up blocker), Mozilla teams invite all users to report the slightest malfunction, so as to distribute an improved version of Firefox as quickly as possible, and not just patches. Thus, the latest versions correct no less than ten more or less serious problems. The bet is not won yet. Because Internet Explorer still benefits from a significant force of inertia, even if Microsoft employees no longer hesitate to admit its weaknesses in public and on forums. This software still comes standard with Windows, and the majority of users, through ignorance or habit rather than choice, are satisfied with the software installed on their computer. In addition, there are still a number of websites that claim to be "optimized for Internet Explorer", that is, written without taking into account Internet standards, and which risk reacting strangely with other browsers. But the situation could change quickly if competition finally enters this market. - The Firefox site in French: www.firefox.fr - The official Firefox site: www.mozilla.org/products/firefox

## ###ARTICLE\_START### ID:112

LEVI STRAUSS: American jeans manufacturer returns to its first profits after restructuring First wage agreement at SNCF in ten years SNCF management and five of the eight union organizations (UNSA, CFDT, CFTC, CGC and FGAAC) that make up the company were due to sign, on Wednesday, October 13, the first wage agreement at the rail carrier since 1994. The agreement, reached the day before, provides in particular for a wage increase of 1.8%. The three organizations (CGT, SUD-Rail and FO), which represent two-thirds of the votes, did not sign this agreement. The CFDT, which would have "liked more", explains that it favored "the signing bonus". According to it, this revaluation is "welcome, especially after the efforts made by the railway workers in the recovery of the SNCF accounts". For the CGT, the main union at the SNCF, after a "blank" year (without a pay increase) in 2003, this increase is far from compensating for the 3.7% increase in the cost of living at the end of August. The management's proposals "still do not address the financial difficulties faced by active and retired railway workers", believes the majority union. A united national demonstration by railway workers is planned for 25 November on wages, but also on public service, freight, employment and the right to strike. MERRILL LYNCH: Wall Street's largest brokerage firm has acknowledged that its profits have suffered from the slowdown in the financial markets The largest brokerage firm on Wall Street acknowledged on Tuesday 12 October that its profits had suffered from the slowdown in the financial markets. According to its CEO, Merril Lynch posted a net profit of 930 million dollars (755 million euros) for the third quarter, compared with 1 billion dollars a year earlier. AUTOMOBILE: the number of registrations in Western Europe fell by 0.6% in September 2004 AUTOMOBILE: the number of registrations in Western Europe fell by 0.6% in September 2004, compared to the same month in 2003. Spain saw a 6.2% increase while France fell by 1.2%. VOLKSWAGEN: the European Commission has decided to take Germany to the European Court of Justice for not having amended the "Volkswagen law" The European Commission decided on Wednesday 13 October to take Germany to the European Court of Justice for not having amended the "Volkswagen law", which protects the manufacturer from hostile takeover bids. COMPANIES INDUSTRY The American manufacturer is expected to announce on Thursday 14 October the elimination of 12,000 jobs in Europe, including nearly 7,000 at Opel, according to union sources. LEVI STRAUSS: the American jeans manufacturer is returning to its first profits (amounting to 46.6 million dollars, or 37.8 million euros, in the third quarter) after its restructuring. Sales in the United States, Levi's largest market, continue to suffer, but in Europe, the company is benefiting from recent price increases. IT: the City of Paris will "gradually" convert the 17,000 computers in its departments to free software. The City of Paris announced on Tuesday, October 12, that it would "gradually" convert the 17,000 computers in its departments to free software. This "migration" will take place between 2004 and 2007, in conjunction with an upgrade of the IT equipment for an investment of 160 million euros. CARREFOUR: turnover for the third quarter (20.31 billion euros) lower than financial analysts' forecasts. The world's second largest retail group revealed, on Tuesday 12 October, a turnover for the third quarter (20.31 billion euros) lower than financial analysts' forecasts and announced that it was abandoning its 5% growth target for 2004. The brand is paying the price for the drop in sales in its French hypermarkets. Furthermore, the group denied that it wanted to withdraw from Japan, where it has eight stores. LECLERC: the Centres E. Leclerc retail group "will launch a hard-discount chain if the Galland law" on prices "is not modified". The Centres E. Leclerc retail group "will launch a hard-discount chain if the Galland law" on prices "is not modified", assured its chairman, Michel-Edouard Leclerc, on Tuesday 12 October. The Canivet report, which is to serve as a basis for a possible modification of the law governing relations between retailers and their suppliers, is expected on 18 October at Bercy. YAHOO!: appointments. The world leader in the Internet announced on Wednesday, October 13, the appointments of Pierre Chappaz as President of Europe for the company and Dominique Vidal as Head of Yahoo! Europe Operations.

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Neither all-Microsoft, nor 100% Linux overnight, Paris is aiming for the "third way" in IT, said François Dagnaud, PS deputy of Bertrand Delanöe in charge of administration, yesterday. A statement made after the presentation to elected officials of the Paris Council of a highly anticipated study on the cost of migrating the 15,000 workstations in the city currently colonized by Microsoft software to free software, these cooperative programs designed by thousands of computer scientists around the world. A report with high symbolic significance: while the city is engaged in an overhaul of its IT system, it has shown interest in the choice of Munich, in Germany, which has decided to completely do without Microsoft to switch to Linux. A "political" choice, according to the Bavarian mayor, that many Parisian elected officials would like to see repeated on the banks of the Seine. Conducted by the service company Unilog, the study presented yesterday highlights that the transition from Microsoft tools to free software is expensive, up to 57 million euros in five years for the most ambitious scenario with the total and rapid disappearance of the tools of Bill Gates' firm. A price inflated by the training of staff in the new tools, which represents "up to 75% of the total" according to François Dagnaud. "These are more or less the same elements that were used in Munich, which did not prevent it from choosing free software, he specifies. The important thing is to win our independence from a supplier in a quasi-monopoly situation." For many elected officials of the municipal majority, in favor of a gradual shift to free software rather than a more expensive radical break, "the decision cannot be only a question of cost", as PC elected official Jean Vuillermoz says. Marie-Pierre Martinet of the Greens hopes that these debates will not "become just a negotiation tool" to get Microsoft to lower its prices. A sport in which the Redmond firm, which has already promised a nearly 60% discount to the City of Paris, excels. Final decision in early 2005.

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Already the number one search engine, will Google now launch its own browser software? This is the question that has been asked for several days by various online newspapers, several participants in discussion forums and a large number of observers of the Internet world. The origin of this rumor is an article in the New York Post according to which Google has just hired several Microsoft programmers... some of whom played a leading role in the development of the Internet Explorer browser. Another clue: as if to confirm the rumor, Google registered the domain name gbrowser.com last April ("browser" means navigator in English). While some see this as a harmless step aimed at protecting several terms linked to Google's activity, others wonder: could Gbrowser be the name of an additional search tool or that of a real browser? Even if its managers affirm that they have no plans in this area, the fact is that Google seems to be taking a close interest in the Internet software sector. Already, by launching the Google bar, which is grafted onto Internet Explorer to facilitate the search for sites and block "pop-up" windows, its teams have put their finger on two of the major weaknesses of Microsoft's product at the same time as they proved their undeniable capacity to produce a program. Furthermore, the company that went public last August is constantly imagining new opportunities. The opening of the Gmail messaging service and the launch of the Blogger personal journal creation tool clearly show that Google is no longer satisfied with its activity as a simple search engine. These experiences would also demonstrate Google's interest in applications intended for a wider audience. Finally, we can add to all these elements an additional lead. Indeed, the company recently hosted on its campus the Mozilla developers conference, Microsoft's most prominent competitor in the browser sector. And while the Mozilla team is attracting more and more Internet users with its Firefox software, which surpasses Internet Explorer in reliability and speed, a large number of specialists are recommending that companies and administrations abandon Microsoft's software for security reasons. So there is room for an alternative. Which would explain the discreet maneuvers of Google, which could tomorrow embody the competition alongside Firefox and other products like Opera. And why not by getting closer to Mozilla, created by the designers of Netscape, and which, by adopting the "open source" philosophy, has decided to open its programs to all developers? To be continued, then...

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FREE SOFTWARE versus proprietary software. Or Linux versus Windows. The rivalry between the two computer operating systems is often expressed in ideological terms. For the uninitiated, on one side there is Microsoft, the evil American giant, taking advantage of its quasi-monopoly on certain software to abuse it commercially. And on the other side there is the good free system that a myriad of computer scientists develop together with free computer applications. In joy and philanthropic good humor. The reality is less romanticized. In local authorities, where "free" is developing, the choice is thus more pragmatic than partisan. At the Urban Community of Lille (Cudl), the open source English version of "softwarelibre" is used for "purely technical" reasons, says the director of IT services Gérard Romby. The City of Besançon, for its part, favors Linux solutions "whenever it finds efficient ones, because they are economically interesting," according to its director of information and communication technologies (ICT), Claude Lambey. "Free" is massively used in the educational field. The 1,200 computers recently installed in Besançon's elementary schools run on a Linux server. Among other applications, it filters pornographic sites that become inaccessible to students. "We only went for "free" for specific functions," notes Claude Lambey, "because we were sure that it worked very well." The Val-d'Oise general council, which has set up a platform and IT tools facilitating Internet access for communities in its territory, has also used free software. "If it had been necessary to pay for licenses for all the municipalities of Val-d'Oise, the cost would have been very high," assures Bruno Perrin, the director of information services for the department. One of the advantages of "free", according to its defenders, is indeed its cost. "The expression "free software" refers to the freedom for users to run, copy, distribute, study, modify and improve the software", defines the FreeSoftwareFoundation, FSF or Foundation for Free Software. The source code of the systems, the key to decrypting their programming, is made public by the designers. Hence its name "open source". Free software then allows knowledge to be shared. Applied to communities, which often have similar needs, it promotes economies of scale. Currently, around a hundred cities, departments or regions are jointly developing more or less identical software. But a single public entity is responsible for the design and construction of the system. "It's a matter of revenge. Tomorrow, other communities will finance other projects. Free software is a bit like everyone taking turns, hoping for reciprocity," explains Pascal Feydel, general delegate of the Association of Free Software Developers and Users for Administration and Local Authorities (Adullact), an organization for which "public money should only be used once." In 2002, the Pierrefitte-sur-Seine town hall was the first French public entity to file a product under a free license, or general public license (GPL in English). The application, a tool for managing a multimedia space, had been designed using other open source programs. Since then, "four or five public actors have developed our software," says Loïc Dayot, project manager at the Pierrefitte town hall, who notes that "instead of everyone paying for a license, everyone adds their own developments and the application progresses." Conversely, proprietary software packages are protected technically and legally. Any attempt to enter the mechanisms of the system is prohibited to the user. The difference is enormous in the event of a breakdown. Without being able to access the source codes of the software, users cannot repair them and must call on the publisher's paid maintenance. Worse, when the owner decides to stop this maintenance, its customers are trapped. "In this case, there is no more maintenance and everyone refuses to repair. It is as if a garage no longer agreed to repair a car because it is ten years old," notes Loïc Dayot. The dependence on the publisher is then enormous. This is rejected by local authorities. The criticism is assumed by Microsoft, which claims, according to its director of legal and public affairs, Thaima Samman, "the right to have fumbled sometimes." In a market that has now reached maturity, "Microsoft is not alone and must fight to make the best offer," acknowledges Thaima Samman. The multinational, which dominates the French office software market with "Office", is now facing competition from the free application "Open Office", among others in local authorities. "The value of the products is not comparable," Thaima Samman dismisses. "Open Office corresponds to the solution that Microsoft offered five years ago." And she notes that "the difference between free and proprietary software is not favorable to free." In fact, "free" is not free. The installation, development and training of staff in open source applications, to replace proprietary software, have a certain cost; between 15 and 35% of additional expenditure on human resources, depending on the local authorities, largely offset however by the free licenses. In the short term, however, proprietary software has nothing to worry about. Many applications, such as accounting, are not compatible with open source. "We are pushing for publishers to make applications on Open Office and not just on Microsoft," says Yannick Boehmann, IT director of the City of Sélestat. "Within a year and a half, everything should be ready."

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In the article entitled "Microsoft counter-attacks against the rise of free software" (Le Monde, September 22), we explained that "free software is generally subject to an operating license", authorizing "the modification of the program by the user, on the condition that these amendments are, in turn, made public". Bernard Lang, research director at Inria, specifies that these conditions do not necessarily apply in the specific case of programs that are not intended to be distributed to the public. Reacting to the article on the CGT in the debate on the European Constitution (Le Monde, September 21), the Fédération de la Chimie specifies that it "does not participate in the meetings of the CGT executive committee, because it has no representative in this body", and that "at no time has our federation led any offensive against the CGT to make it decide on the constitutional treaty". "Our federation nevertheless shares the decision of the CGT executive committee to organize and engage in a real debate with members [on this subject], before defining its position for the referendum."

## ###ARTICLE\_START### ID:117

The current debates on the organization of research have the merit of raising a central question: what place and role should be given to public research in the years to come? Transformations that some consider worrying are indeed disrupting the existing balances. National states, with the exception of the United States, have reduced their funding, putting an end to major civil and military technological programs; the European Union (EU) has not yet taken over. Companies, which are fighting with innovations, are investing more and more in research and do not hesitate to protect knowledge produced largely by public laboratories through patents. Academic researchers are invited to transform themselves into entrepreneurs. As for the management of large organizations such as the National Center for Scientific Research (CNRS), they follow their troops more than they lead them. These developments produce a legitimate feeling of disarray among researchers and raise the question of the place of the public in our research efforts. At the risk of complicating the debate, I would like to put forward the idea that research must increasingly be decided and carried out with the public, instead of being content with being public research. Talking about public engagement in scientific and technical affairs means first of all noting that researchers, political leaders and economic players are no longer the only ones deciding on the direction of research and designing the innovations to be developed. The public, which our scientific and political institutions nevertheless consider to be passive, has become active and reactive. It is in this spirit that citizen consultation procedures have been developed over the last few decades, with a view to gathering their opinions and recommendations. These procedures, devised by the Scandinavian countries, are not limited to citizens' conferences alone. There are currently around twenty different procedures, from which one can choose depending on the issues to be dealt with. France has fallen far behind in this area, but experiments are multiplying. They must be encouraged. Talking about public engagement in research also means, and above all, recognizing the growing, and soon central, role of "affected groups." These can be divided into two families. The first is that of affected groups and the second that of orphan groups. Affected groups are formed to fight against unexpected excesses: mad cow disease, pollution of rivers or water tables, global warming, dissemination of GMOs, etc. These excesses affect people - they can be local residents, scientists or ordinary citizens - who are upset by them. To establish the reality of these collateral effects of technical progress and to measure their consequences, they mobilize to launch research; they organize investigations and experiments in which interested specialists participate. The CRII-Rad, created following the Chernobyl accident to measure radioactive fallout that some had contested, is now a recognized center of expertise in the field: it illustrates the possible role of affected groups. Orphan groups are made up of people who consider that publicly funded research and private research are not interested in their fate. They feel that they have been forgotten and feel orphaned by science and technology. The history of the French Association against Myopathies (AFM) is exemplary. In the space of a few years, a handful of families and patients, whose concerns were ignored by public research and industry, transformed into a powerful organization that played a strategic role in the field of genomics, then gene therapy. The AFM did not just fund laboratories. She has led a genuine research policy, inventing forms of research organization in which patients are stakeholders. In all advanced democracies, we observe a growing commitment of patients' associations that actively participate in scientific investigations. But they are not the only ones to invest in research. Orphan groups appear in all areas: it is enough to mention the communities that have developed and imposed free software by imagining, alongside the dominant institutional frameworks, a new way of organizing innovation. Orphan groups and affected groups cannot be assimilated to civil society or an undifferentiated public. Nor are they simple gatherings of laypeople or citizens who would be suddenly seized by a passion for a science that is done outside of them. They are people concerned by certain results of scientific and technical research and who, for reasons of their own, want to influence its orientations and content. These groups, when they appear, are weak and not very visible. Their existence is fragile. Some disappear quickly; others succeed and metamorphose into solidly constituted interest groups. All, whether they fail or prosper, contribute to enriching research and innovation policies. The challenge is to imagine institutions and mechanisms that allow the emergence of these new actors: for one AFM or CRII-Rad that succeeds, how many other emerging groups disappear without being heard? It is also a question of prioritizing the demands they express: not all causes deserve to be defended with the same ardor and consistency. The reunion of research and the public is inevitable. Firstly because the complexity of technical and scientific issues requires recourse to public consultation procedures. Then because the markets, due to their network organization and the growing place of life sciences, are transformed into machines for producing excesses and exclusions: affected groups and orphan groups proliferate and demand the opening of laboratories. There is no point in repeating as a refrain at mass that science is a public good. As was discussed at length during the international conference organized at the end of August by the Ecole des Mines on the relationship between science and society, there are a thousand publics concerned who give themselves a thousand different, and often antagonistic, definitions of the research to be undertaken and the goods and evils to be expected from it. It is this unexpected return of the public, or rather publics, that we must now be concerned about.

## ###ARTICLE\_START### ID:118

Michel Callon is one of the most prominent researchers in the sociology of science in France. A professor at the Ecole des Mines de Paris and a researcher at the Centre de sociologie de l'innovation, his reputation extends far beyond our borders. Criticizing the traditional distinction between public and private research, he believes that public authorities, researchers and businesses must see that the world has changed. According to him, we must imagine forms of organization that make the directions of science largely debatable. This is the first time he has spoken in the press about the research crisis in France. LE FIGARO. Have you been consulted by the CIP, also known as the "Beaulieu-Brézin committee"? Michel CALLON. No. However, we are in contact with many researchers in France and abroad who are thinking about the organization and place of science in society. We would have a lot to say about the different forms of research organization and their respective merits. Of course, we must "save research" and researchers, but to do what? This is the real question, and it has gradually faded into the background. So there is no real debate, in your opinion. Proposals have flourished, but they have come mainly from the research community. This is not enough. Other groups are concerned and I am not sure that they have been listened to sufficiently and that their proposals have been taken into account. Why? The current debate resembles a role-playing game, with all the connivance and rigidity that this implies. Everyone seems to agree that basic science should not be discussed outside the restricted circle of specialists. Oh, sure, there are differences between the protagonists. Some think that it is good in itself. Others admit that the applications can be more or less good. But these differences are secondary. Everyone comes together to believe in a basic science, distinct from the uses that are made of it, and which constitutes in itself a public good, something from which everyone can benefit. This assertion is nothing new. It was developed by completely orthodox economists (Jean-Baptiste Say at the beginning of the 19th century and Kenneth Arrow nearly fifty years ago). But we now know that this model is false. It is false on an economic level: knowledge is only usable by the small number of those who have the means to direct and use it. It is false on a political level, because there are a thousand different publics who define good and evil in a thousand different ways. This narrow definition of fundamental science has unfortunate consequences, in your opinion. What are they? To act as if it were a public good in itself is to pit the world of academic research financed by taxpayers against that of private research, that of knowledge considered disinterested and that of applications described as interested. This model, shared by the different protagonists of the current debate, is the zero degree of political reflection. The current crisis could have been an opportunity to get rid of it. My feeling is that, after six months of mobilization closely supervised by the Academy of Sciences, it will emerge stronger. You go even further. The opposition between public research and private research does not seem relevant to you. Why? First of all, it must be remembered that this distinction is quite recent: all the great scientists of the 19th century and the first half of the 20th century were at the center of networks linking university research and industrial activities. There is no reason for this division, which historians have shown was made possible and then maintained by the Cold War and major military programs, to continue. Moreover, since the beginning of the 1980s, exchanges, relationships and interferences have multiplied. Some welcome this, others hide it or denounce it. The research situation is therefore much more complicated than people want to say. We can see first of all that it is increasingly difficult to exclusively associate basic research and public funding. Much of the research carried out in public bodies is finalized and, at the same time, companies support high-level fundamental work. In our country, researchers who want to explore new avenues often come up against the conservatism of public institutions. It is thanks to the General Delegation for Scientific and Technical Research (DGRST), a Gaullist creation, that molecular biology emerged in France despite all the obstacles imagined by the CNRS to nip it in the bud. All those who say that public funding helps support the emergence of new ideas, which without it would never see the light of day, are telling untruths. You are very interested in the close relationships that civil society has with research. And they are increasingly numerous. It is quite recent, but it is developing very quickly. Associations bringing together patients, users or ordinary citizens are getting involved in research to guide it, organize it and sometimes to participate in investigations. We only need to give the example of the French Association against Muscular Dystrophy (AFM), the League against Cancer or even the Criirad. Here we have audiences, groups concerned, who are not taken into account by elected officials or professional researchers. And there are good reasons to think that their cause advances better when they are the ones who take care of it! As we can see, the landscape is becoming more complicated. It shows the lack of relevance of the opposition between the public and private sectors or between the State and the market. It is probably preferable to distinguish between two types of research: exploratory research and exploitative research. It is not often that we hear things like this. Can you clarify your thinking? The first aims to open up new avenues that are still little known and uncertain. The second plays the safer and often very productive card of deepening themes and conceptual frameworks whose validity is recognized. This distinction, it must be emphasized, does not overlap with the distinction between fundamental research and applied or targeted research. Exploitation research can require very abstract, very formal work and produce basic knowledge. Does this distinction allow us to pose the question of the organization and financing of research differently? The organization of exploratory research must be open: the objectives, methods, and results must be able to be discussed widely since everything is still uncertain and vague. Exploitation research can be organized in a more closed way because it is easier to agree on the relevance of the strategies followed and on the quality of the results obtained. Do you not hesitate to contest the fact that exploratory research must be systematically conducted in public organizations, financed by the public authorities? Of course. Foreign countries have understood this well and often use private foundations to support open research, the kind that launches into the exploration of uncertain avenues. It can also be supported by the for-profit sector: companies sometimes have an interest in investing in clearing new avenues. Conversely, it is not uncommon for public authorities to invest in exploitation research to meet demands ignored by the private sector. Intellectual property law is a powerful lever for regulating the arrangements between open and closed research, because it is what regulates the circulation of knowledge. We can only be sorry about the lack of debate on these issues, which are crucial for the years to come. This lack of reflection does not only concern our country! Can French society reform its public research? Public authorities, researchers and companies must accept that the world has changed. The three-way game is over. The public concerned is putting pressure on us to organize research differently. The adventure of free software like Linux shows that new models are possible and that new players bringing innovations are emerging everywhere. France is not isolated from this movement, far from it. The organization of AIDS research and the role played by the ANRS are exemplary. I mentioned the case of the AFM, but we should also mention the Alliance for Rare Diseases. Let's not forget the recent initiatives of INRA and INSERM, which have opened up to debates on their orientations. Our society is changing. We must take advantage of this dynamism to set up forms of organization that allow us to benefit from it. But for this to happen, our researchers and decision-makers must get rid of the idea that there is a fundamental science that escapes political debate.

## ###ARTICLE\_START### ID:119

Last Tuesday night, after a big concert bringing together several groups and musicians, David Byrne, ex Talking Heads, as well as the great Brazilian composer and now Minister of Culture of the country, Gilberto Gil, launched a compilation on CD while asking the public to copy it, to throw all the songs on peer-to-peer (P2P) networks like Kazaa and to burn copies for their friends. While the music industry is constantly taking legal action against Internet users, this gesture made by these artists seems at first glance irrational. However, it aims to highlight the Creative Commons project, a new approach to copyright adapted to the digital world. Indeed, while copyright as we know it restricts by default any use of a work other than listening, Creative Commons gives creators the possibility of defining themselves under which type of license they intend to distribute their works. The Creative Commons Project The idea of creating a new type of license better suited to the digital world, and particularly to the Internet, was born in 2001 at the Stanford Law School Center for Internet and Society. Among the best-known figures working on this project is Professor Lawrence Lessig, a law professor at Stanford University and a recognized specialist in the legal issues surrounding the Internet and the concept of "copyright". Drawing on the philosophy of free software (Open Source) and the various licenses governing it, Stanford researchers wondered how to adapt such a concept to digital content (text, images, music or video) in order to ensure that they are protected and that their authors will not be dispossessed of their rights by distributing their works on the Web. Between the restrictive "all rights reserved" that too often limits imagination and creativity, and the public domain where anarchy reigns and no one recognizes the rights of creators, the Creative Commons license attempts to combine the best of both worlds. Halfway between "copyright" and "copyleft", the Creative Commons license allows creators to freely distribute their works. Flexible and adapted to the digital world, it also allows these creators to reserve certain rights. Very simply, Creative Commons could be summed up as follows: "Share what you want, and keep your rights to the rest." Creative Commons allows creators to switch from "all rights reserved" to "some rights reserved". A right that everyone can understand The beauty of a Creative Commons license lies in the popularization work carried out by its designers. While almost all software licenses or any other commercial product are written in a jargon accessible only to lawyers specializing in copyright law, Creative Commons shines with its Zen side. By combining the four initial conditions (see box), it is possible to build, like a Lego set, a personalized license according to your needs and requirements, depending on the rights you wish to retain. Based on the advice of the Creative Commons website, which assists creators in choosing their license, three final versions are offered to the user, three versions designed respectively for the creator and the user, for copyright specialists and finally, for the computer: - A graphic version, with eloquent iconography, which defines in a few words the rights, but also the responsibilities and duties of each of the two parties, namely the creator and the "consumer" of the work. - A legal version, written in this famous legal jargon totally incomprehensible to ordinary mortals, but essential because the only one truly legally valid. - A digital version, designed specifically for the machine, composed of metadata that will be an integral part of the code of a Web page and which can therefore be read by software. Upon reading this text, the reader will understand that the Creative Commons license is not intended to supplant current licenses. It exists because with the arrival of digital technology, and particularly the Internet, a new territory where downloading, multiple copying, creation and publication of modified works and collaboration reign supreme, creators needed a new legal framework adapted to the possibilities offered by the network of networks. Visionaries, the creators behind Creative Commons are creating a new license that goes even further than the current license. The "Sampling License" is designed specifically for this new generation of musicians and videographers who are used to juggling sounds and images. Creative Commons is a first serious attempt to adapt copyright to the digital world. It provides creators with protection for their works, while allowing them to share all or part of their work, and by promoting collaborative work, a universe that many young creators born with computers and who have made network culture a way of life have assimilated quite naturally. mdumais@ledevoir.com

## ###ARTICLE\_START### ID:120

The American computer giant has just announced that it will reveal the codes of its Office suite to sixty governments. An unnatural strategy for Microsoft, aimed at combating the rise of free software that is increasingly competing with it. The debate on free software regularly comes back to the forefront. The idea of being able to have an operating system and software at a lower cost, whose lines of code can be modified to adapt it to one's needs, is making headway in large companies and administrations. The first target of this rise in power: the giant Microsoft, which dominates both the market for workstation operating systems thanks to Windows (93.9% of global market share in 2003) and office applications with the Office suite (Word, Excel, PowerPoint, etc.) which monopolizes more than 80% of the market. A hegemonic situation that is gradually being eroded by free software publishers, particularly the most developed of them, the Linux operating system. Initially denied by Microsoft, the threat is now taken very seriously. In its latest annual report, Bill Gates' firm states that "if free software continues to grow, sales of our products could decline, which could reduce our turnover and operating margin". Needless to say, there is urgency. To counterattack, Microsoft launched the GSP (Government Security Program) in January 2003, which opened access to the source code of its Windows operating system to 30 countries (including China, Russia, Spain and the United Kingdom), in order to counter the rise of Linux. Today, the publisher is taking a further step and extending its program to the source code of the Office suite, open to the governments of 60 countries. A way to counter the development of the competing software suite, based on the principle of free software, Open-Office. A code to see, but not to copy The idea is to offer States access to millions of lines of Office code via an internet connection. But be careful, there is no question of being able to copy or modify this code, it is just a consultation. For Microsoft, which benefits from a solid reputation for preserving its manufacturing secrets, this is nevertheless a real revolution. Even if we are still far from the "philosophy" of free software, whose source code, developed by a community of programmers, is public and is constantly improved. The measure taken by Microsoft meets several objectives. First, to show more transparency towards governments that handle sensitive data and who must therefore ensure optimal security of their information systems and applications. With this approach, Microsoft intends to prove that it does not hide spies in its lines of code since there is always a suspicion that the American giant could collect data for the benefit of the United States through its software. A rumor even claims that NSA (National Security Agency) agents are integrated into the software development teams for this purpose. Then, access to the lines of code should also make it possible to give more visibility to the file storage mechanisms, so that governments can control their traceability (see box). However, a certain number of points are not resolved by the GSP program. In terms of security, Microsoft's products are the most widespread, they are also the most attacked. Either by hackers directly or by viruses. Security flaws are regularly discovered, leading to recurring expenses to remedy them. In terms of costs, Microsoft is having a hard time aligning itself with its competitors from free software. Especially since it has been racing to release the new version since its creation. Regularly, the versions of the software used must be updated, for a fee, since Microsoft does not necessarily maintain the old ones. Moreover, the French government announced last June, through Renaud Dutreil, Minister of the Civil Service, its intention to halve the cost of computer software used by the State by contacting free software publishers, who will thus be put in competition with the American giant Microsoft. "In the next three years, a large part of the software licenses for the 900,000 computer workstations in the State will have to be renewed," announced the minister. For office automation products alone (word processing, spreadsheets, presentations, etc.), the financial stake is more than 300 million euros." The first step taken with the GSP program will undoubtedly have to be followed by others to eradicate the competition. Especially since today alternative software from the free world has acquired its credibility. Windows attacked by Linux Well-known publishers such as RedHat, Lindows or the French Mandrakesoft offer commercial solutions around free software. They provide paid packs, built around the Linux kernel, integrating complementary applications. They do not just sell their products but also provide more and more services, from installation to maintenance and training. These publishers were quickly followed by major computer manufacturers, seeing this as a way to reduce their dependence on Microsoft, who have invested heavily to make their hardware compatible with Linux. IBM and HP are among them. For the time being, Linux has only taken possession of 3.2% of the workstation market and 6% of the server operating system market. But its share is over 30% in Web servers and close to 25% for corporate servers. Open-Office, the competing suite of Microsoft Office, which runs on Linux and Windows, is also making headway. So many serious threats that could force Microsoft to reduce its phenomenal operating margins (70% for Windows and 66% for Office in 2003). To the great delight of users.

## ###ARTICLE\_START### ID:121

Microsoft has doubts. Harassed by the European Commission and shaken by competition from free software, the company continues to make announcements to try to plug the gaps in its dominance of the software market. And in particular to propose adjustments to its Windows operating system, which equips more than 90% of the world's computers. The emergency is Europe: the European Court of Justice (ECJ) began yesterday to examine the company's request to suspend the remedies imposed by the Commission in March to put an end to its "abuse of dominant position". The debates will continue until Friday evening, or even Saturday. No panic in Microsoft's house, however: as of June 1, 2004, the group had made a profit of more than 8 billion dollars over the past year, for a turnover of nearly 37 billion. Review of the Windows family in times of upheaval. A mini-Windows This is one of the issues at stake in the European Court of Justice's decision: will Microsoft have to provide a version of Windows without the audio-video software Media Player? For the Commission, this practice of tying is aimed at driving Microsoft's competitors out of the market. A strategy already used successfully when the company sank Netscape and its web browser, in favor of its own Explorer. Whatever the ECJ's decision, "we will certainly be ready to comply with it," declared legal director Brad Smith on Monday. While the firm has long maintained that it would be very difficult to separate Windows and Media Player, it says it has spent "millions of dollars in recent months" to achieve this. A Windows for the poor Until now, Microsoft has not suffered too much from the many illegal copies of its software, common in developing countries. Regarding pirated versions of Windows in China, Bill Gates said in 1998 that "as long as they steal software, we prefer it to be ours." They will become addicted, so to speak, and we will eventually find a way to make them pay." A doctrine challenged by free software: rather than paying Microsoft, many countries are turning to these programs that are freely available. The solution? Offer a low-cost version of Windows, stripped of certain functions, and hope to stem the threat. In recent weeks, Microsoft has announced such an offer in Thailand, Malaysia, Indonesia, Russia and, yesterday, in India (see below). A bare Windows Free software is supplied with its source code, the lines of code that make up the programs. Conversely, until now, Microsoft has jealously guarded its manufacturing secrets. Concerned about the opacity of the American company's products and the possible presence of spyware in their entrails, several States were attracted by free software, which is more transparent. In January 2003, Microsoft therefore launched its Government Security Program (GSP), a project designed to provide (very controlled) access to the Windows source code. And did the same last week with its Office suite (word processing, spreadsheet, etc.). A Windows at a knockdown price Since the arrival of free software, reputed to be cheaper or even free, the company has multiplied its resounding discounts whenever a market threatens to escape it. "At Microsoft, at the moment, it's permanent sales," says a competitor. The firm thus offered a discount of almost 60% to the Paris City Hall, which is studying the renewal of its computer equipment.

## ###ARTICLE\_START### ID:122

Microsoft is applying in Europe the strategy that has been beneficial to it in the United States: putting its formidable power at the service of its interests to avoid the worst. Across the Atlantic, the firm founded by Bill Gates managed to reach an amicable agreement in November 2001 after being found guilty of abusing its monopoly. Yesterday, the American giant, condemned last March by the European Commission, asked the Court of First Instance of the European Union to suspend the sanctions decided by Brussels for abuse of a dominant position. Bill Gates' firm was ordered to pay a fine of 497 million euros and to provide a version of its flagship program, Windows, stripped of its multimedia software. It is also forced to provide technical data on its programs to its competitors to facilitate communication between software. The hearings, which began yesterday morning in Luxembourg, are scheduled to last two days, and could extend into Saturday. The court must give its opinion within two months. "This is the first time in the history of competition that a company has been ordered to explicitly describe a secret technology and deliver it to its competitors," Microsoft lawyer Ian Forrester told the court. While the powerful American publisher is using patents to defend itself, Europeans have been divided for many months over the best way to protect software. Computer programs are currently subject to copyright on the Old Continent. But Brussels wants them to be protected by patents. Two camps are facing off. Opponents in Brussels, including computer science figures such as Tim Berners-Lee, the creator of the Web, Jean-François Abramatic, research director of the French Ilog, and publishers of the free software Linux, reject the idea of a patent. They believe that this measure will strengthen the power of the most powerful companies. Major European technology groups, such as the French Alcatel, Dassault Systèmes and the German SAP, are in favour of adopting a European directive on the patentability of software. A new debate on this subject will take place in the European Parliament at the end of the year or the beginning of next year.

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## ###ARTICLE\_START### ID:124

Who doesn't know the famous Peter Pan, a magical character from the Disney world that we've seen on the big screen in cartoons or with real characters? In this disc designed for young people aged 6 to 10, Disney offers an arcade-type action game where you have to move the character and accomplish certain feats to finally discover the treasure. On the road, there are of course pirates and pitfalls, but nothing to scare a skilled Peter Pan who can fly and handle his knife like a pro. No violence except for the fights against the pirates, but many levels to go through to get the map, trace the clues, discover the secret levels or buy stuff at the Indian store, even see some movie sequences that the player will have discovered along the way. In addition to Captain Hook's crew, Peter Pan must be wary of seagulls, piranhas, bombardier pelicans, the eagle, and swarms of mosquitoes. You have to collect feathers along the way to get extra lives and open the mysterious trunk. Not to mention the bags of fairy dust, the pan flute and the pieces of the map. The game is interesting. The cartoon images are too pixelated and you can't see as well. The controls are easy to memorize when using the keyboard, but using a joystick is preferable for better control of the action. RATING: \*\*\* PC disk. Minimum configuration: Pentium II 300 MHz, Windows 95 and above, 64 MB of RAM, display in thousands of colors, 8 X reader. Publisher: Disney Interactive. Suggested price: $24.95. Distributor: PMD Logisoft. "Dictionnaire encyclopédique 2005" The Dictionnaire encyclopédique 2005, from Micro Application, could be described as a light version of La Grande Encyclopédie 2005 from the same publisher. The presentation is very similar and the search tools are almost identical, as are the thematic itineraries and sections on history, nature, arts, sports. The World Atlas offers short texts and images of cities or places that you want to know better and even links to websites to learn more. Navigation in the timeline tool is simple and is done according to three paths: Arts and culture, Sciences and Society. You can see at a glance the significant events of a period and situate them in context with each other. The information capsules provide an interesting overview. To put your knowledge to the test, there is a well-made and particularly difficult quiz game since it covers, among other things, the fields of arts (music, cinema, painting), sports, politics and sciences. You can play it alone or with three other partners and try to be the first to reach the goal with the best result. A good challenge. Although it is not an encyclopedia, but a dictionary, the software is interesting both for its content and its ease of use. RATING: \*\*\* PC disk. Minimum configuration: Pentium II, Windows 98 and higher, 64 MB of RAM, display in thousands of colors 800 X 600, 4 X reader. Publisher: Micro Application. Suggested price: $25. Distributor: DLL Presse. "Open Office" Among the free software, there is Open Office, a direct competitor to the Microsoft Office suite. The volume Open Office Dossier Micro Application takes a tour of the software to discover this office suite which includes a word processing software, a spreadsheet for tables and calculation functions, a presentation software, another graphics software to draw and transform objects and an HTML page editor to create Web sites. The book contains a CD-ROM of the Office suite. Easy to read, the document helps to understand the functioning of the office suite that runs under Windows (version 98 to XP included on the CD) or under Apple's OS X system (version to download from the site www.openoffice.org). If you do not want to invest a few hundred dollars in commercial software, Open Office can meet your needs. I tested it on Macintosh and the different elements work correctly even if I hate the interface. On PC, the interface is normal and much less "strange" than on the Mac. It generally works well within the limits of the tests carried out to open and modify documents from other similar software. However, I was not able to use certain software in integration like Antidote for correction and dictionaries. If you want to use Open Office, this book will save you time. Open Office Dossier Micro Application, Chrystelle Micholet, Micro Application, 450 pages, price: $34.95, ISBN: 2-7429-3326-3 YTherrien@lesoleil.com

## ###ARTICLE\_START### ID:125

London - Since Microsoft won the "browser wars" in the late 1990s, its Internet Explorer software has become the primary tool for Internet users. That may change with the arrival of serious rivals such as Opera, Safari and Firefox, which offer users innovative features and better security than Internet Explorer, which has remained largely unchanged for years. Firefox was born from the ashes of Netscape, the pioneer of Web browsers that was emblematic of the Internet explosion in the 1990s before being buried by Microsoft's Internet Explorer. Netscape has since been bought by the Internet service provider America Online, which has donated its source code to the nonprofit Mozilla Foundation. After about three years of ups and downs, Mozilla launched a new version of its browser in 2004, which took months to find an audience. More than five million copies of the software have been downloaded in the past two months, and more than a million since the September 15 launch of version 1.0 in preview, a pre-commercial version. Among alternative Web browsers, only Firefox is available as open source, which allows anyone to modify its code to add modules to automatically check an e-mail account, control a digital music player or launch search queries in Google, Amazon.com or eBay. Most estimates give Internet Explorer about 95% of the market share, but this hegemony could be reduced in view of the behavior of early adopters, the pioneers fanatical about new features who define future trends several months before the general public. For example, nearly 20% of visitors to the avant-garde site Engadget (www.engadget.com) go through Firefox to connect, compared to 53% for Internet Explorer, 11.3 for Safari and 2.5% for Opera. Tabs and Security The most interesting feature offered by all alternative browsers, Opera, Safari and Firefox, but absent from Internet Explorer, is tabbed browsing. Most Internet Explorer users open multiple browser windows, whether to visit several sites one after the other or to keep certain windows open, such as their email on the Web, for example. Tabbed browsing allows you to open an unlimited number of sites in a single window in order to save space on the screen. It also has the advantage of allowing you to open all the sites that the user visits daily or that he keeps open permanently. The three alternative browsers also offer the blocking of pop-up windows that display advertisements without the user's consent. Microsoft recently released an update to its Windows operating system that allows you to block these windows. Over the years, Internet Explorer has become a favorite target for many virus writers who take advantage of a series of well-known security flaws, its deep integration into the Windows system, and its wide popularity among Internet users. Alternative browsers therefore benefit from greater security thanks to their small number of users, because they are of no interest to virus writers. In addition, they do not include certain functions created by Microsoft, such as ActiveX controls, which allow a site to install an executive program on a system, one of the main sources of vulnerability in Internet Explorer. The still very small presence of alternative browsers does have certain drawbacks: since Internet Explorer remains the market standard, some pages do not run or run poorly in Opera, Safari, or Firefox. Firefox (www.mozilla.org/products/firefox/index.html), which does not yet offer a fully developed version of its software, is completely free and modifiable. Safari (www.apple.com/safari/) is available only to the small percentage of Internet users using Apple computers running MacOS. Opera (www.opera.com/) is available as shareware, with a free version containing ads and a paid version without ads.

## ###ARTICLE\_START### ID:126

"God save the Kranes", God saves the cranes. Those of the abandoned ports that Nautilosh is trying to breathe new life into. For three years, the association has been squatting in the abandoned warehouses and industrial-port buildings of Pier 1 of the autonomous port of Dunkirk, which it has converted into creative spaces, artists' studios and concert halls. Last weekend, the docks vibrated to the bass of rock, heavy pop and breakcore groups from Rostock, Gdansk and Riga, during the "God save the Kranes" festival, whose aim is to create a cultural freight line between industrial ports, from the Mediterranean to the Baltic. On this occasion, an artistic residency was held for a fortnight, entitled SémaPhore (control tower), the last workshop of a vast European project of transcultural mapping (TCM, see previous workshops on http://locative.net) launched at the initiative of Rixc, the new media centre in Riga. Materializing the flows. From September 13 to 25, musicians, media artists and radio amateurs scanned radio communications and traced maritime traffic between Dover and Dunkirk, a nerve center through which the largest cargo traffic in Europe passes, using radar. The result of this mapping of the acoustic space will give rise to a concert-performance on Saturday based on the accumulated recordings and live interceptions of radio communications. The objective: to materialize the invisible and inaudible flows of information that surround us, in order to create the soundscape of the place. Installed in one of the port's containers, set up for the festival, there are around ten of them working on the project. Aljosa Abrahamsberg (aka Max Nullo), who has deployed his amateur antenna on the lighting pylon, intercepts maritime communications, between boats entering and leaving the port and the Vigie, the CBs of taxis in the city, the exchanges between ferries, cargo ships and control towers as well as the conversations of nearby mobile phones. A practice that his amateur radio license allows him to do. The Slovenian musician, a member of Makrolab, honed his amateur radio skills at the time of the war in Yugoslavia, listening to what was happening on the other side of the border, intercepting communications between pilots, the only way to access unmanipulated information. Alongside him, Jason Skeet (Aphasic) from Eindhoven, founder of the JUNK label (which builds bridges between avant-garde music and the dancefloor), improvises on his laptop based on sounds gleaned the day before during a visit to the Port Watchtower and interviews conducted with the watchtower's radio managers. Spectrum ecology. New Zealander Adam Hyde, from the Radioqualia collective, is working on making a hydrophone, a microphone for underwater sound recording, and is developing open-source software to process it. He will try to raise public awareness of the disturbances caused to underwater wildlife by boat sonars. Boats tracked by radar, whose movements can be followed on the map projected on the bottom of the container. Head of the radar unit, Ewen Chardronnet, from the Ellipse agency, is also the organizer of the residency with the Plate-forme, an artistic association from Dunkirk. "The residency addresses several themes including maritime ecology and the ecology of the radio spectrum, increasingly exploited by the military and large mobile phone companies (to which new frequencies have been allocated). The spectrum is shrinking more and more, which limits the possibilities for civil and civic use." On the occasion of the final performance on Saturday, which will also feature the introverted Latvians of Clausthome, authors of dark and tortured electro-industrial music that feeds on the noise of radio communications, as well as the musicians Gaël Angelis (Man-eater Orchestra) and Sébastien Lemonon, the artists will scan the space live, rework the sounds and try to represent these immaterial territories that surround us. "Each place has its own poetry of signals, the color of the sound changes from one place to another, from one country to another, because of the weather, the language, the type of technologies used," explains Aljosa. But, beyond this poetic dimension, which sometimes appears when we overhear an intimate discussion on a cell phone, the performance also speaks of surveillance, of the dark side of technologies, it shows how easy it is to track and spy on." Of course, these two friends did not suspect that their hilarious conversation about a vacation spent at Club Med would be intercepted and incorporated into a sound composition, broadcast in front of an amused audience. The collective will repeat its performance, with satellite interceptions added, in Signal Sever Transignal 5, during the Nuit blanche parisienne as part of Cité Sonic at the Cité universitaire.

## ###ARTICLE\_START### ID:127

Will the city of Paris take the plunge? At the beginning of the year, the Paris City Hall commissioned the IT services and engineering company Unilog to conduct a study on the costs and conditions for switching to free software. At the request of the Greens, all political groups should discuss this study in the coming weeks, before its conclusions are made public. In early 2005, the mayor of Paris, Bertrand Delanoë, will make his decision after consulting Christian Sautter, deputy (PS) in charge of economic development. At the Paris City Hall, the discussion on free software is not new. "We realized that this movement was not led by a few brainless leftists. If China, Korea and Japan were starting to take an interest in this phenomenon, then it was not just ideological," explains Danièle Auffray, deputy (Greens) to the mayor of Paris, in charge of new technologies and research. In 2001, the municipality had completely overhauled the Internet sites in the town halls of the twenty arrondissements and chosen an open software, called Lutèce. About twenty other French cities, including Bordeaux, have already adopted it. In addition, some of the public digital spaces, the Parvis, where Parisians can connect to the Internet, are already using free software. "These will all be unified by 2005-2006," says Ms. Auffray. DEVELOPMENT IN EUROPE Finally, the City Hall is examining the possibility of switching its computer system, which is outdated and whose security leaves something to be desired, to free software. This reflection has not left Microsoft unmoved. The American software giant has lost or is in the process of losing, in Europe, the markets of several cities, including Munich, in Germany. In June, the capital of Bavaria voted to deploy free solutions for its entire computer park (16,000 workstations) of its administration, in place of Windows. In August, Vienna, the Austrian capital, announced that in 2005 it would offer its civil servants the choice of the Linux operating system or keeping Microsoft's Windows. To avoid being supplanted in Paris by Linux and its ilk, Microsoft is said to have offered the city very substantial discounts on its products. The figure is said to be over 60%; Auffray refuses to confirm this figure, while affirming that, beyond Microsoft's official line - "Free software represents a real challenge for us" - there is the unofficial line, which consists of "offering discounts". "We have made a certain number of proposals concerning the infrastructures for the Paris City Hall", Christophe Aulnette, CEO of Microsoft France, simply acknowledges. He admits to having made "efforts, as in any competitive bidding process", but within a "reasonable" framework. For Mr. Aulnette, the debate goes beyond the cost of software, which "represents 2% to 3% of IT budgets. We must also take into account the cost of services associated with this free software". Confident, the CEO assures that his "proposals will be less expensive than alternative solutions". At the Paris City Hall, they want to be pragmatic. "It is indeed wrong to believe that free software is free. In the end, if this solution turns out to be more expensive than Microsoft, we will not switch", underlines Ms. Auffray. In other administrations, such as the General Directorate of Taxes, and in certain ministries (interior, equipment, etc.), the idea of free software has also made its way. At the Ministry of Economy and Finance, nearly 25% of servers already run on Linux. Renaud Dutreil, Minister of Civil Service, announced in June that he wanted to halve the cost of computer programs used by the State by using free software.

## ###ARTICLE\_START### ID:128

The global software giant Microsoft announced on Monday, September 20, that it would give FREE ACCESS to the source code of its range of office software, Office, to the governments of more than sixty countries. Already, in January 2003, the group had opened access to the source code of its WINDOWS operating system to thirty States (including China, Russia, Spain and the United Kingdom). If Bill Gates' group has agreed to reveal the heart of its technology, on which its QUASI-MONOPOLY is based, it is to counter the rise of free software, such as Linux, which interests computer giants such as IBM, Hewlett-Packard and Oracle, but also major users, such as the CITY OF PARIS. Linux already holds 30% of the Internet server market and 25% of those of companies. SOFTWARE GIANT Microsoft announced on Monday, September 20, that it would give free access to the source code of its Office range of office software to governments in more than sixty countries. The world leader in software will thus reveal to these major clients the heart of its technology, on which its quasi-monopoly (Office's market share exceeds 80%) and its abundant profitability (66% operating margin on this segment in 2003) are based. This initiative is not new: it is part of the operation called the Government Security Program (GSP), launched in January 2003. The IT giant had already opened access to the source code of its Windows operating system to thirty countries (including China, Russia, Spain and the United Kingdom). This one runs nine out of ten computers on the planet with, again, an exceptional profit margin of 70% in 2003. The scope of the new gesture made towards governments for Office should be put into perspective: major clients will be able to "consult the lines of code via secure access on the Web", explains Bernard Ourghanlian, technical director of Microsoft France, but they will not be able to copy them and even less make modifications to them. This decision is nonetheless spectacular on the part of a group with a hegemonic vocation, which had until now jealously protected its manufacturing secrets. It shows to what extent Microsoft feels the ever-increasing pressure of competition from free software. Indeed, in this family of free programs, the source code is public, the fruit of the work of a vast community of programmers who make their results available on the Internet. The Linux operating system is, compared to Windows, the most emblematic representative; but, in office automation, OpenOffice and Mozilla are taking on Word, Excel, PowerPoint and Outlook, all from Microsoft. SECURITY ISSUES In fact, major clients, both administrations and businesses, are increasingly attracted by this alternative. The private sector is first and foremost sensitive to the cost argument. Not only does Microsoft regularly increase the already high price of its licenses, but it does not hesitate to force the purchase of new versions of its software, by no longer ensuring the maintenance of the old ones. For States, security issues are paramount. In addition to hacker and virus attacks, which mainly affect the computer programs of the Redmond (Washington State) giant, due to their omnipresence, governments' distrust is growing in the face of the opacity of Microsoft products, with the constant suspicion of espionage by the United States. The credibility handicap that Linux and its procession of applications have long suffered from, due to their original "libertarian" model, no longer exists. Publishers such as RedHat, Novell, Lindows or, in France, Mandrakesoft, have built a commercial activity around free software, by offering paid "packs" grouping, around the Linux kernel, a host of complementary applications and automated update or system management solutions. These groups also provide installation, training, technical assistance, maintenance services, etc. Above all, the Linux family has been supported by powerful sponsors. IBM has invested more than $1.3 billion (€1.07 billion) to make all its products compatible and train more than 7,500 employees in Linux. Hewlett-Packard and Oracle are also active promoters. The result is there: Linux has nibbled away at 6% of the server operating system market, but its share is over 30% in Web servers and 25% in enterprise servers. Today, Linux is starting to be installed on desktop computers, and OpenOffice (which can also run under Windows) has acquired a small notoriety. The rise in power remains marginal in view of the overwhelming market share of the Redmond giant. But, according to Ted Schadler, an analyst at the Forrester research firm, quoted by the Asocciated Press agency, "it's more than background noise. There are real decisions being made, money being spent, and Microsoft is starting to be affected at the margins." Faced with the offensive of this particular type of rival, which it can neither buy nor copy, Microsoft first played the role of disdainful ignorance and then denigration, with, in particular, the launch at the beginning of the year of a gigantic advertising campaign in Europe and the United States, clearly anti-Linux. But today, the competition from free software is no longer presented by Microsoft's boss, Steve Ballmer, as a "cancer" but as a "challenge". In its annual report published at the beginning of September, the group indicated for the first time that "the success of non-commercial software" was likely to "negatively affect [its] performance in 2005". AN ASSET UP THE SLEEVE Microsoft is now taking its "free" competitors very seriously... and is therefore making concessions: to businesses by slashing prices on licenses; and to administrations with the GSP program for opening up the code. On this point, the result is mixed since, at the end of the summer of 2003, China, Japan and South Korea announced their intention to support the development of a pan-Asian operating system based on Linux. But the Redmond firm keeps an ace up its sleeve. It intends to pursue a more aggressive intellectual property policy, while its 4,500 patents are now dormant. "Previously, Microsoft filed patents with an essentially defensive perspective," explains Mr. Ourghanlian. Today, we try to ensure that this intellectual property is as widely accessible as possible, for a fee." Which means that certain technologies in the Microsoft universe, hitherto used by free software, could be locked down.

## ###ARTICLE\_START### ID:129

Will Linux be called into question as FREE? The question has been open since a software publisher, SCO Group, began claiming copyright on this "free" and free operating system. In March 2003, this American company launched proceedings against IBM, accusing it of having introduced into Linux parts of programs from an old Unix operating system and on which SCO Group holds exploitation rights. The company is claiming 5 billion dollars (4.1 billion euros) from IBM. In the process, SCO Group also launched proceedings against software publishers Red Hat and Novell, which based all or part of their activity on the distribution of Linux. Finally, in August 2004, SCO claimed rights from Linux users (such as DaimlerChrysler and AutoZone). JUST OVER $10,000 The company headed by Darl McBride has thus attempted to create a legal uncertainty that is not conducive to the development of Linux. With varying degrees of success. Linux user companies have not given much credence to its claims: according to the online magazine CNet, the Linux licensing program has only earned SCO Group just over $10,000. Furthermore, SCO Group has been dismissed from most of its complaints against users. And the courts will not be able to initiate the other procedures launched by the company until the end of the cases opposing it to IBM and Novell, which is not before the end of 2005. In this case, Microsoft may have used the small software publisher for its own benefit, according to an internal SCO Group memo, revealed by the OpenSource Initiative, an association intended to promote free software. Allegations that are refuted by Bernard Ourghanlian, technical director of Microsoft France: "I cannot imagine that SCO could have allowed itself to be exploited in such a way."

## ###ARTICLE\_START### ID:130

You are an economist at Paris-Dauphine University. How do you interpret Microsoft's decision to open the source code of its Office suite to more than sixty countries? Clearly, the level of threat posed by free software is considered worrying enough for Microsoft to announce this type of measure. But it is a bit crude to oppose "evil" merchants and "altruistic" designers. Behind the Linux threat, we must see the threat posed by firms like IBM, which also integrate free software into their services. Moreover, at the beginning of the year, IBM patented a system for remunerating people who could help develop this software. We are in a "market economy" here. Renaud Dutreil, the Minister of Civil Service, announced that he wanted to halve the cost of government software by using the free system. Does abandoning Microsoft mean savings? In the short term, no doubt, and if we simply look at the acquisition of the software. But this is a partial argument. Free software is only one element of the value chain. We must think in the medium and long term and take into account all the services associated with the software: transfer costs to move from one system to another, maintenance costs, staff training, etc. For the general public, access to the source code is of little interest. However, this freedom can be advantageous for a large structure, an administration for example, which employs its own IT specialists, on the condition that the calculation to choose one or the other system includes all these future costs and economically values this freedom. The answer will therefore come on a case-by-case basis. To counter Linux, Microsoft often highlights the security of its products. In your opinion, is this a strong argument? It is obvious that in the future, it will be an argument in the competition. By opening its source code, Microsoft is saying to the States: "You see, we are playing the game, we are with you." In any case, the terms of the classic competition between these two worlds are emerging. By prices: Microsoft and others are lowering them to respond to the Linux threat; by quality, especially around security. Finally, "proprietary" software [like Windows] will become more transparent and that is rather a good thing.

## ###ARTICLE\_START### ID:131

Source code. The source code is the "recipe" of a software and reveals its manufacturing secrets. It is composed of millions of lines of computer code, unreadable for the neophyte. Free software. This is the name given to programs developed by communities of volunteer computer scientists. Their source code is public and their use, as well as their copying, are free. Free, free software is nevertheless generally subject to an operating license. This authorizes the modification of the program by the user, on the condition that these amendments are, in turn, made public. This principle prohibits any taking of intellectual property on free software.

## ###ARTICLE\_START### ID:132

The research company Markess International has created a database listing central administration computerization projects, a central element of the modernization and reform of the State. While the use of free software (whose source code is freely accessible) is increasingly mentioned in speeches, and practiced in many administrations abroad, it appears that the reality in France is still far from intentions: only 7% of the 543 projects listed include a "free" component, and this proportion is barely higher for future projects.

## ###ARTICLE\_START### ID:133

There's nothing like getting naked and showing off your private parts to inspire confidence: with the announcement on Sunday that the source code for its Office suite (Word word processing, Excel spreadsheet, etc.) will be made available to sixty governments around the world, Microsoft is trying to reassure states that fear the presence of spyware hidden in its programs. Opacity. For the company, it's really just an exhibition: the source code is the lines of code for any computer program, a manufacturing secret that has been jealously guarded until now by the Redmond firm. Office thus joins the Windows operating system in the company's Government Security Program (GSP), launched in January 2003 and already signed by around thirty countries including China and the United Kingdom. "The addition of Office to the GSP demonstrates our ongoing commitment to working with governments [...] to meet their specific needs," said Jonathan Murray, technical director of Microsoft Europe. For the company, it is also a question of countering the growing competition from free software. This software, of which the Linux operating system is the most emblematic, is the fruit of the collaborative work of thousands of people around the world, and its source code is public. A characteristic that increasingly appeals to states worried about Microsoft's opacity, security problems (viruses, in particular) and recurring suspicions of espionage on behalf of the United States. In 2000, Le Monde du renseignement had revealed a report from the French Ministry of Defense recalling "the persistent rumors of the existence of spy programs in Microsoft software and the presence of NSA [American spy agency, editor's note] personnel in Bill Gates' development teams." Rumors denied by the American publisher, of course, but without reassuring anyone. Last June, UMP MP Bernard Carayon reported in a report the "high technological vulnerability" of France and mentioned the "use of free software" as the only "possible solution". This type of concern, added to the desire of States to limit Microsoft's hegemony, has opened the way to free software in the administration. Linux is eating into Windows' market share. And the Office suite is facing strong competition from the free software OpenOffice, which the French Ministry of the Interior, for example, is currently deploying in police stations. No adaptation. Microsoft's "open house" operation is "a little limited", tempers Jacques Le Marois, founder of the company Mandrakesoft, which distributes versions of Linux. He points out that Microsoft's GSP sets many conditions for transparency and, above all, prohibits governments from modifying the source code to adapt it to their needs. Unlike free software. For Microsoft, for the moment, adaptation is out of the question. Getting naked is fine, but getting groped is not something you should push...

## ###ARTICLE\_START### ID:134

The American software giant Microsoft is going to give free access to the source code of its range of Office software to governments in more than sixty countries, in the hope of strengthening its position in the face of competition from free software. The latter, which includes the well-known Linux, are distributed free of charge. They can be copied, modified and therefore customized, and are also attractive for security reasons. For these reasons, many administrations, particularly in France, are studying a possible abandonment of Microsoft products in favor of software of this type. The American giant is therefore reacting to this threat. In January 2003, the group had already given access to the source code of its operating system, Microsoft Windows, which runs more than 90% of the world's microcomputers. This open policy, called the Government Security Program (GSP), has obtained the signatures of more than thirty countries, including Australia, China, Norway, Russia, Spain and the United Kingdom. The administrations of more than sixty countries are also participating. Concretely, the administrations of these countries, including China and Russia, will be able to consult the source code of Microsoft Office 2003, which includes Word, Excel, PowerPoint and Outlook. But the promoters of free software are wondering about the intentions of Bill Gates' firm. Mandrakesoft, which has already convinced the French ministries of Equipment, Culture, Foreign Affairs and the General Delegation for Armaments to switch from Microsoft to Linux, is already wondering about the terms contained in the thick contract that Microsoft will submit to them.

## ###ARTICLE\_START### ID:135

Iran is the latest country to consider moving away from Microsoft's Windows operating system by opting for the free software Linux, which anyone can copy for free. The Islamic Republic is not seeking to reduce the cost of its IT bill, a reason often given by states making the same choice, because "all software in Iran is a copy, there is no copyright in Iran, so everyone uses Microsoft software for free," explains Mohammad Sephery-Rad, secretary of the High Council for Information Technology. Nor is it a question of driving out the software of an American firm. But rather of limiting piracy in the country, an imperative condition for hoping to join the World Trade Organization (WTO). For Iran, whose one million computers in government departments are equipped with Windows, paying the sums owed to Microsoft would cost "a lot of money," continues Mohammad Sephery-Rad. Hence the Linux alternative, which could be considered in "two or three years". Microsoft could thus regret the blessed time of piracy when, at least, the Iranians used its software. According to AFP

## ###ARTICLE\_START### ID:136

An 800 million euro contract for Alstom Marine. Italian cruise line MSC Croisières has confirmed an order with Alstom Marine for the purchase of two 1,275-cabin cruise ships, the French industrial group announced on Saturday 18 September. The transaction is worth 800 million euros. The ships intended for MSC, 294 metres long and 32.20 metres wide, are due to be delivered in June 2006 for the first and in spring 2007 for the second. This is the first firm order for cruise ships for Alstom Marine since February 2001. Until now, the group had only had French orders. This order comes at a time when the Alstom group is undergoing a perilous recovery, following its rescue in the spring by the French government. Designed with the agreement of the European Community, the group's refinancing plan, amounting to 2.2 billion euros, providing for a capital increase and a debt conversion, was put in place this summer. The software giant will give governments of more than sixty countries free access to the source code of its Microsoft Office suite, Microsoft announced Monday, September 20 in Paris. The American group intends to counter the growing enthusiasm of institutional clients for free software in general and Linux in particular. The FSA, the Japanese banking supervisory authority, ordered the American giant on Friday, September 17, to close four branches in Japan (400 employees), accusing it of having made "illegal profits" and "deceived" its customers and the regulatory authorities. The oil company is reportedly about to make a significant investment - 1 billion euros - in a Russian oil company, according to Les Echos on September 20. This stake does not imply a takeover, internal sources within the group suggest. The Russian oil company, on the verge of bankruptcy, announced on Sunday, September 19, that it had partially suspended its deliveries to China, which was due to receive 1 million tonnes of crude by the end of the year.

## ###ARTICLE\_START### ID:137

This week, free software is having a blast and celebrating its difference and diversity. Across Quebec, volunteers working in multiple associations and groups have pushed the wheel and come together to launch the first edition of the Semaine québécoise de l'informatique libre. From September 18 to 26, events are planned to allow everyone to get to know free software. And free software is much more than Linux. In addition to the famous Penguin, free software is also the Open Office office suite and the Mozilla browser, two software programs among the thousands that exist and are available for free download. As Yannick Brosseau, a member of the Groupe des utilisateurs de Linux de l'Université de Sherbrooke (GULUS), and founding partner of the Week with organizations such as FACIL, Cogitateurs-Agitateurs, Linuq, PHPQuebec and Linuxédu-Quebec, explains, "by organizing this Week, we want to highlight the importance of free software, make it known to a wider audience and encourage its appropriation by the community." Conferences In short, throughout the week, these "professionals" of free software will organize events including security training sessions, conferences on free software issues, installation festivals and conferences with alternative media. One of the highlights of this week will undoubtedly be the conference day to be held on Saturday, September 25 at the École Polytechnique de Montréal. The program includes 9 conferences on topics as diverse as issues related to the use of licenses such as the GPL, free software in government, open file standards and formats, free software in business and the use of free software on proprietary platforms, all presented by high-caliber speakers.

## ###ARTICLE\_START### ID:138

Do you know about opensource software? Maybe not, but you have every interest in knowing about it, because someone in your company may be using it and it could cause you big trouble... According to the Grand Dictionnaire terminologique, opensource software or "libre software" (or "open software") is software delivered with its source code in such a way that it can be copied, modified and redistributed, thus evolving continuously towards a more advanced version, in a context of cooperative and community development. According to some experts, it is necessary to distinguish between "free" and "open", but we will not dwell on this distinction. Software is made free by the granting, by its designers, of an opensource license (or "free license") by which they limit the exercise of their copyright, without however giving it up. Under this type of license, the software developer grants permission to anyone - an individual or a company, for-profit or not, Wilfred fan or not - to reproduce or modify, as they see fit, the software covered by this license. But be careful! A free software license does not mean that the use of this software is free of all conditions. You must respect the terms of the license to ensure, among other things, that the software and its improvements continue to be available to the public. Here are some examples of these terms: no warranty for the software; obligation to acknowledge copyright; obligation to provide a copy of the license with each copy of the software; and obligation to make public the modifications made to the source code. This last obligation can be particularly problematic for you, which is why it is important to know if such software is used in your company without your knowledge. Imagine the following situation: your company employs computer scientists who design software for the specific needs of your company. One of them, probably with the best of intentions, downloads software from the Internet that is available under a free license and uses its source code to develop new software for your company. Since the downloaded software is free, you can do whatever you want with it, right? Wrong! In fact, you may rather have to make your new software publicly available under the terms of the free license, since by using the guts of free software, your IT professional has probably bound you to the terms of the free license that accompanies this software. And bam! Your competitors will also benefit from this new and improved software, all of the development costs of which you alone have borne. Before downloading such software, it is therefore advisable to read the specific terms of the license that should accompany it, if you can trace it... You must also make sure to inform your employees about the obligations that arise from these free licenses and to respect their terms, although the validity of some of these terms has not yet been confirmed by the courts. Furthermore, while the term "free" does not mean that the software is available without restriction, it also does not mean free of charge - although such software is generally offered free of charge or at a minimal cost. These free software programs (among the most popular are surely the Linux operating system and the Apache web server software) originate from the idea that software used for non-commercial purposes should not be subject to restrictions. Although this concept is relatively new and opposes the commercialization of software, it is worth noting that this vision of free software is increasingly widespread, perhaps even on your computers! Me François Larose practices in the law firm and trademark agent Desjardins Ducharme Stein Monast. Internet article@ddsm.ca Website www.ddsm.ca

## ###ARTICLE\_START### ID:139

With corporate spending down and consumer demand for computers slowing, the high-tech sector is weakened this back-to-school season. American groups Intel and Microsoft, in particular, had not anticipated this turnaround. DISAPPOINTING PC SALES Back-to-school purchases generally boost sales for technology companies at this time of year. But this year, they are very disappointing. The result: inventories are piling up at vendors, causing manufacturers to postpone component orders. "Disposable income is down and the picture is not so rosy on the employment front. Many households are tightening their belts for electronics and computer purchases this back-to-school season," says Krishna Shankar, an analyst at JMP Securities. According to IDC, worldwide sales of personal computers should grow by 10.2% this year, compared to 13.3% in 2003, before increasing by 11.4% in 2005. Explanations: individuals have largely equipped themselves in recent years and no major innovation is expected in the coming months. The leaders in the sector, the American groups Intel and Microsoft, have had to revise their forecasts downwards. At the beginning of 2004, the world leader in microprocessors, Intel, had anticipated a recovery in demand for computers and had increased production accordingly. But, despite the drop in chip prices, orders have not followed. And its largest customer, Microsoft, indicated for its part, on Thursday September 2, that it was also counting on a slowdown in the growth of its turnover for the financial year from July 2004 to June 2005. RESULT WARNING Intel expects a mediocre third quarter. On Thursday, September 2, it issued a profit warning, indicating in a press release that it was no longer counting on sales of between $8.3 and $8.6 billion (between €6.9 and €7.1 billion) for this period, compared with a range of $8.6 to $9.2 billion initially forecast. The cause: weak demand for personal computers and poor shipments of flash memory, which stores information in all circumstances. Furthermore, the American group indicated that its gross operating margin should be "around 58% plus or minus two points" for the third quarter, whereas it had expected "60% plus or minus two points". The American stock market reacted very badly to these announcements. On Friday, September 3, the share price lost 7.3%, to $20, a drop of 40% since the beginning of the year, dragging down the Nasdaq index, which lost 1.5% at the close. Intel, the world's leading chip maker, is seen by markets as a barometer of demand in the technology sector. Following the Nasdaq, the Philadelphia Semiconductor Index fell 5.23% to 357.84 points, its lowest level of the year. COMPETITION FROM FREE SOFTWARE "We do not expect our revenue to grow in fiscal 2005 at the same high rates as in 2004, although information technology spending continues to improve," software giant Microsoft said in its annual report, filed Thursday, September 2 with the Securities and Exchange Commission (SEC), the American stock market watchdog. "Despite general economic conditions that are expected to remain stable compared to the improvements seen in the second quarter of fiscal 2004, we expect the growth rate of PC and server shipments to slow in fiscal 2005," Microsoft said, predicting that "PC shipments will increase 7% to 9% and server shipments will increase 13% to 15%." Bill Gates' group is taking the rise of open source software very seriously. "The success of non-commercial software is a factor that could negatively affect our performance," it acknowledged. "The free Linux operating system is increasingly used as competitive pressures lead computer manufacturers to reduce costs. If open source software becomes more widely accepted, sales of our products could decline, which could result in a reduction in our revenue and margins."

## ###ARTICLE\_START### ID:140

Racing fans will have a blast with TrackMania, especially since they can create the most unusual circuits to test their skills, alone or with others. While the game can be controlled with a keyboard, it is preferable to use a controller in order to have better control in the turns and for accelerations. There are tons of turns and turbo tracks, each one as amazing as the other. The game features off-road tracks for rallies, winter tracks with 4x4s and on the road with cars from the Street Racing genre of the 1970s. You can play in single player mode, multiplayer mode for two to eight people or in a network at home and on the Internet by connecting to one of the many servers around the world. There is also a site with its forums and other information at www.trackmania-lejeu.com. In the individual mode, there are the different "Series" type races and each track comes with its type of vehicle that can be chosen in the player settings. However, there does not seem to be any adjustment for the vehicles like in some racing games. This is not a big deal because in most cases, it is a race against the clock or against opponents with identical vehicles. In the "Series" mode, the races are named by the letters of the alphabet. You cannot move from one of the races in series A to one in series C without having managed to win a certain number of bronze, silver or gold medals in the previous category or in all the races. As long as you do not have enough points, the following races do not appear. Once table A is completed, you can move on to the other races. I stopped at section D. This series was becoming more and more complex with somersaults from the first race. At this level, I was able to finish a few races, but without winning any medals. I had won 24 before! The medals not only allow you to access the next race, but also to participate against several other vehicles in the "Survival" mode. It is less obvious to win against a machine that supervises the gold medal drivers. The "Puzzle" mode allows some creations, but it is the "Editor" mode that provides all the tools to create your own circuits based on the number of "Cooper" won (the game's currency) during the races in the "Series" mode. The only flaw in the game is the absence of a track preview mode before the race. Either you choose to race in slow motion to detect the traps, or you rush at all costs and adjust later. There is a quasi-edit or construction mode that allows you to see the track in plan, but it is not as good and interesting as taking a virtual tour as if you were driving. And there are no rearview mirrors, only indications of the distance in seconds separating the opponents when passing the checkpoints. For the rest, the camera points of view towards the front, above or behind, the 3D effects and the decorations are amazing. With the camera, you can be like in the driver's seat or directly above the game. In driver mode, the low walls come very quickly. This is probably the most difficult shot of the game because you can't see far enough ahead, but for the visual sensation, it is the best. The game is exciting, even exhausting when you get carried away in a race against the clock to get the gold medal, even if it means starting the race 50 times to end up winning! A very good game. RATING: \*\*\*\* PC disk. Minimum configuration: Pentium II 450 MHz, Windows 98 or higher, 64 MB RAM, 3D graphics card with 16 MB memory, display in thousands of colors, 4 X drive, 300 MB free on disk. Publisher: Nadeo, Focus Home Interactive. Suggested price: $35.99. Distributor: PMD Logisoft. Using free software Free software has been around for a short time, since the arrival of Linux in fact, an operating system developed by computer scientists who wanted to compete with Windows and ensure that users everywhere in the world had a choice. This, while allowing other computer scientists in the world to modify, add to and improve the system. In this book, we do not only talk about Linux. We cover many other free software that can be installed on your computer and, if you have sufficient knowledge of computers and the ability to modify the software code, make improvements to it for yourself and for others. Among other things, we are talking about the OpenOffice office suite for PC and Mac OS X, software for creating and converting PDFs as well as others for graphics and image editing such as The Gimp and Sodipodi, even creating MP3s or using Mozilla to navigate the Internet. All the software mentioned in this 650-page book is on the accompanying CD. The authors talk about "high-performance alternatives to the market's reference software" for next to nothing or very little. Instead of piracy, those interested in alternatives to the very expensive suites from major companies should take a look at this book and the world of free software. Using free software, Pierre Fontaine, Pierre-Emmanuel Muller, Micro Application, 650 pages and a CD, price: $34.95. ISBN: 2-7429-3572-X. YTherrien@lesoleil.com

## ###ARTICLE\_START### ID:141

Television host Paul Rivard of TQS could no longer do without it. "I could not live without this device, which serves me as much in my personal life as on the set of my show." Mr. Rivard talks about his electronic pocket organizer, a BlackBerry model, which he uses as a memory aid, pager, diary, cell phone, and allows him to surf the Internet. "I have been a happy owner for four years and I decided to upgrade to the phone version a year ago," says the host, who always wears his device on his belt. "It allows me to be more efficient. Rather than keeping piles of scraps of paper in my pockets, I can search through my electronic notes at any time or contact someone in a matter of seconds to verify information." At this time of year, many consumers are tempted to do like Paul Rivard and abandon their good old diary for an electronic organizer or pocket computer. These little devices have come a long way since the first electronic organizers from Sharp and Casio and do much more than just copy your address book. Today, in some cases, these PDAs can even replace a computer. This is especially true for frequent travelers or mobile workers. The devices are powerful, autonomous and, above all, more affordable. Not to mention the choice. Two major operating systems reign in this universe: Palm and Microsoft's Pocket PC, but several manufacturers offer various variations of their pocket organizers to better meet the needs and budgets of consumers. For example, there are low-end devices for $200, but also high-powered pocket organizers that could make a laptop blush with envy. They cost around $800. Real need? So it's easy to get caught up in the game and invest a lot of money in a device that you will only use 15% of its potential. That's why, according to Jean To, a consultant at CompuSmart in downtown Montreal, "you really have to take stock of your real needs." "It's not uncommon to see a client come in looking for a personal assistant," he says, "simply because a colleague or friend has dangled its possibilities in front of them." If he makes a list of his real needs, the client may realize that a paper organizer would do just as well. Some questions to ask yourself: Do you need a pocket organizer to manage a large volume of appointments, to manage your address book, to take electronic notes to later transfer them to a computer, to do your accounting or to check your e-mail? "It is important to know that the Palm family of pocket organizers and those of Pocket PC, although similar in appearance, are aimed at very different markets," explains Jean To. "For questions of time management or data security, a Palm organizer is certainly the choice to make, says the advisor. A consultant, a lawyer or a psychologist who bills their clients by the hour, will easily find programs that will turn their Palm into a tool for tracking files and managing their schedule." Something not to be overlooked is that it is in the Palm format that we find the most free and paid software allowing us to personalize the device. For example, there is software that allows us to track a diet or even our golf season... For its part, the Pocket PC is particularly suited to multimedia applications. "A real estate agent or traveling salesperson will find it especially convenient to be able to work on Word and Excel documents from their small device or even present photos or a multimedia presentation at a conference from their Pocket PC," says Jean To. If you're a frequent traveler, you might want to watch a movie on a plane or train; the Pocket PC allows for this type of digital entertainment on a very small screen. The ultimate If, like host Paul Rivard, you're a pocket organizer addict, the BlackBerry from Ontario manufacturer RIM will meet all your needs... and even the ones you didn't have! A device of this type combines the pocket organizer and the cell phone. This hybrid technology gives us devices like the Treo, from PalmOne, the Smartphone, from Siemens, or the famous BlackBerry. The latter was omnipresent among journalists and political organizers during the last federal election campaign. When planning to purchase a device from this new hybrid generation, remember that you will need to add a cellular service subscription to enjoy the full potential of the work tool. A subscription that can quickly become expensive since you will need a voice plan for traditional communication and a data plan to allow access to the Internet and data transfer. In addition, you should know that the BlackBerry manufacturer has a very exclusive approach and that, unlike the Palm and the Pocket PC, the manufacturer RIM leaves very little room for outside contractors to create software. The choice is therefore more limited. Regardless, the TV host appreciates the versatility of this type of device. Especially since it allows him to stay in touch on all occasions. If you give him a call, his organizer becomes a telephone. And if a loved one wants to leave him a discreet message, he becomes a mini-computer... "In the morning, occasionally, my partner sends me a little text message, during the commercial break, to tell me to fix my hair or straighten my shirt!"

## ###ARTICLE\_START### ID:142

Washington - The world's largest software company, Microsoft, said it expects revenue growth to slow in fiscal 2004-05 compared with this year because of a slowdown in shipments of personal computers (PCs) and servers. "We do not expect our revenue to grow in fiscal 2005 (July to June) at the same high rates as in 2004, although information technology spending continues to improve," the software giant wrote in its annual report filed with the Securities and Exchange Commission. "Although overall economic conditions are expected to remain stable compared to the improvements seen in the second half of fiscal 2004, we expect the growth rate of PC and server shipments to slow in fiscal 2005 from the strong growth rates seen in fiscal 2004," Microsoft said. At the end of July, Microsoft had forecast revenue of between $38.4 billion and $38.8 billion for fiscal 2004-2005. This would represent an increase of 4.2 to 5.3 percent from the US$36.84 billion it earned in the fiscal year ending June 2004. "We estimate that PC shipments will increase by 7 to 9 percent and server shipments by 13 to 15 percent in fiscal 2005 compared to 2004. These lower growth rates could lead to slower revenue growth in 2005," the software group said. For its part, the world's number one microprocessor maker, Intel, issued a major profit warning yesterday, indicating that it is now only expecting third-quarter sales of US$8.3 billion to US$8.6 billion, whereas it had previously targeted the US$8.6 billion to US$9.2 billion range. On Tuesday, in a statement that caused Intel's stock to fall sharply on the stock market, investment bank Morgan Stanley said it now expects sales of only US$8.7 billion instead of the US$8.8 billion previously expected. Intel's third-quarter gross margin should be "around 58% plus or minus two points," the group said in a statement. It had previously been aiming for "60% plus or minus two points." The American giant's two major divisions (PC components on the one hand, and mobile phone components on the other) performed less well than expected, it added. Microsoft's PC sales grew by around 13% during the 2004 financial year, according to Microsoft. The company also cites "the success of non-commercial software" as a factor that could negatively affect its performance. "The Linux operating system, derived from Unix and available free of charge, is increasingly used as competitive pressures lead computer manufacturers to reduce costs," Microsoft said. "If open source software becomes more widely accepted, sales of our products could decline, which could lead to a reduction in our revenue and operating margins," it warned. Operating income for the 2005 financial year is expected to reflect lower operating expenses in the absence of certain settlements of claims recorded in 2004, and due to lower stock compensation and savings from the cost-cutting initiative. "We expect the businesses that reported operating losses in 2004 - Mobile and Embedded Devices, Business Solutions, and Home and Entertainment - to make significant progress toward profitability in 2005 as their operations improved," Microsoft wrote in its report. From a legal perspective, Microsoft increased its estimate of what it should have paid in certain ongoing antitrust and consumer lawsuits to $1.04 billion, compared to a previous forecast of $972 million, after paying administrative expenses. Since 2003, the company has settled numerous U.S. state lawsuits, agreeing to issue consumers and businesses with vouchers for software and hardware from any brand. The maximum amount of vouchers issued to settle these lawsuits is $1.55 billion, but the final cost is expected to be less than that figure.

## ###ARTICLE\_START### ID:143

Who owns the formidable radio and television archives of the Canadian Broadcasting Corporation? To all Canadians, of course. After all, with a contribution of just under a billion dollars per year through your taxes, it is normal that you should be able to access the significant audio and video content of our history, all of which is stored with varying degrees of success in the Corporation's warehouses. However, try calling the Corporation and asking for a copy of a radio program such as Indicatif Présent, or a VHS tape of Point de Mire with René Lévesque, and you will see that you will be charged dearly for it. In defense of the august corporation, let's admit that an archive service such as that of the CBC costs an arm and a leg to administer. So how do you reconcile the profitability of a costly division to manage while allowing Canadians to access part of their history without it costing them anything, because after all, they are the ones who largely paid the bill? Along comes the Internet and the creation of a project to digitize part of the archives on the great Web. Birth of the "Archives" section on the Radio-Canada website, a place that is continually improving over the weeks. Let us highlight in passing the excellence of the team in place that brings together these archives by theme. However, it is impossible for an ordinary citizen to take the digitized content in any way to integrate it into their personal website. Although these archives were paid for by them, the Corporation stipulates that "the archival documents on the Radio-Canada archives site remain the property of the Corporation. You can view them, alone or in a group, at home or in class, without downloading them. You may not at any time broadcast them on your site in any form whatsoever, but you may point to the archives site via a hyperlink." So, the Corporation should administer this audiovisual fund like a good father. Some will argue about the total and unconditional opening of these archives to citizens. However, are the archives currently broadcast accessible to all Canadians? Are they free of any ties to a supplier? Are they digitized in a free and open format? NO! Currently, the Canadian radio archives are encoded in a proprietary format belonging, as you may have guessed, to Microsoft. Once again, do not confuse me with those who launched a "jihad" against the company owned by Bill Gates. I have nothing against Microsoft; the consumer, the SME or the private company is completely free to acquire the products designed by this company. However, and I repeat once again, governments and related companies, funded by our taxes, are the guardians of our data. And data is as much the millions of files from office suites as the digitized archives of Radio-Canada. It is therefore insane that said data should be subject to a possible diktat from a commercial company. Especially since the software industry has a habit of wanting to be paid according to the number of users who consult the site. In addition, some licenses require a fee for each hour of digitized content. Enough to quickly increase the annual bill. In addition, once the finger is in the cogs, and the digitization process is standardized around a proprietary technology, the company is subject to the goodwill of the company publishing the technology. If the terms of the license suddenly change, it is the end user who will have to pay the costs. Once again, if a private company decides to make such a choice, good for it. However, in my not very humble opinion, there is no way that a public company financed by your taxes can be handed over to the goodwill of a commercial company. NO! Fortunately, the best public television in the world, the BBC, is preparing to face companies like Microsoft or RealAudio on their own turf. Since the BBC's management announced their intentions to digitize the entire BBC archives and make them accessible to all citizens who have paid for this content, this digital "James Bay" has highlighted important issues, including those relating to the choice of technology chosen and the accessibility of the content. However, instead of opting for a soft solution, that is to say choosing some proprietary encoding and broadcasting technology, developers working at the BBC are in the process of developing a new open-source "codec" called Dirac. A codec is the most important piece of software code in an audiovisual content broadcasting process. It allows data to be compressed or decompressed on the fly when it is transmitted over a network. In short, at the heart of any audio and/or visual broadcasting mechanism is the codec, which is almost always proprietary. For example, digital cell phones use audio codecs to transmit voice. The Internet telephony we talked about in the last few weeks? Codec too. And since the very beginnings of the general public Internet as we know it today, all audiovisual content broadcasting processes have one or more codecs, some of which are developed in Quebec, at the University of Sherbrooke, and marketed by a "spinoff". You will understand, given all these commercial issues, that the BBC's announcement is therefore worth dwelling on in detail. Traditional video codecs - NTSC, PAL or SECAM - have always been royalty-free. Imagine if companies like Radio-Canada or the BBC had to pay royalties for each hour of broadcasting. It is easy to imagine the colossal sums they would have to pay. Why then should it be the same for the Internet? It must be said that, since the arrival of the BBC on the Internet, British public television has continued to innovate and be a model, both in terms of content and the appropriation of technologies, which is very far from what our Canadian radio company is currently doing, which, most of the time, sees the Internet as a twin brother of television, or a clone of an advertising leaflet, and which considers that a simple forum is the ultimate in terms of interactivity. And let no one bring up the argument of financial resources. One of the rare different Internet sites of the Radio-Canada company, that of Macadam Tribu, contains small, simple and trippy finds, which prove that imagination, madness and knowledge of the electronic media can make up for a lack of money. In short, the BBC's decision to develop this technology, designed specifically for current and future needs, in open source code sends a strong signal to all public television and radio stations in the world and to their managers who, too often, through convenience or laziness, do not examine all the issues surrounding the use of new technologies. Moreover, Tim Borer, head of the Dirac technology development team, recently declared that he "has nothing against Microsoft or any other commercial company. We use a lot of technologies developed by Microsoft. However, we want our content to use open and free standards". This decision also challenges the new Minister of Heritage, Liza Frulla, who will have to bring her department into the 21st century. She, who will probably have to review the CRTC's operating rules in order to deal with the issues that the use of "disruptive" technologies will introduce in the coming years, should look into these issues and surround herself with a few advisors who can explain their impacts. After all, if today's public airwaves use open and free technologies, is it not logical that the airwaves of the future, which will be carried by the Internet, should be as well? Is it not also logical that the Minister of Heritage is dealing with issues relating to this heritage that is the CBC/SRC radio and television archives? Because once they are digitized, who should have ultimate control over these archives? A commercial company that owns the rights to use a technology or civil society? mdumais@ledevoir.com

## ###ARTICLE\_START### ID:144

Bangkok - Microsoft announced last week that it will offer a lighter, and therefore cheaper, version of its Windows XP operating system starting in October. Aimed primarily at users in developing Asian countries, this "XP Lite" is also intended to combat the erosion of Microsoft's market share due to computer piracy and the growing influence of the "open-source" Linux system, a system that is virtually free in its basic version. Officially called "Windows XP Starter", this operating system is a "low-cost introduction to Windows XP designed for beginners in developing countries", Microsoft said in a press release. The "Starter" edition will offer lower graphics resolution, fewer network options and less multitasking capacity than its predecessor "Windows XP". This "Starter" edition will equip new low-cost computers sold by Microsoft manufacturers and distributors in Thailand, Malaysia and Indonesia. Two other countries are also expected to be affected, but discussions are still ongoing, Microsoft said. Pricing for the stripped-down version will be communicated to distributors in the coming weeks. Focus on security Microsoft will make available to consumers within days a security-focused update to its Windows XP operating system, the world's largest software company said last week. Service Pack 2 was made available to computer makers on Friday and should be available to personal computer users for free "in a few days in English," a Microsoft spokesman said. The update will be available later in more than 20 languages. Microsoft has invested nearly $1 billion in Service Pack 2 and other programs, including the upcoming version of its operating system, currently called "Longhorn." Since its release three years ago, Windows XP has been the target of numerous attacks. "Service Pack 2 is an important step toward our goal of helping customers better isolate and make their PCs more resilient to increasingly sophisticated attacks," said Bill Gates, Microsoft's software architect. Microsoft expects to distribute Service Pack 2 to approximately 10 million PCs worldwide over the next two months.

## ###ARTICLE\_START### ID:145

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## ###ARTICLE\_START### ID:146

You can equip your computer with all the usual functions without paying a penny, thanks to "free software" offered for free on the Internet. The good news is that some of them now surpass their paid equivalents. Tired of fattening up Uncle Bill (Gates)? You really don't have to buy his software anymore. Or anyone else's. With free software (or open-source), the computer equivalent of generic drugs, it is possible to equip your computer with all the usual functions for free, whether you use Windows or MacOS. Experts will say that this has been possible for years, but what's new today is the quality of this free software, which sometimes surpasses that of its commercial competitors. In addition, it has become easier to find and install. In fact, its only major flaw is that it doesn't invest in marketing and advertising, and that's perhaps why you don't hear about it very often. Let's start with the Web, the most used feature by basic users. The Mozilla browser (mozilla.org) offers a lot of features and flexibility to the Internet user. Mozilla is a nonprofit foundation that brings together volunteer programmers from around the world. At first glance, nothing will change for you: its interface even looks a lot like that of the once-popular Netscape, for which it still provides the basic technology (but without AOL's ad bugs). It's only with a little more practice that you'll understand the difference. Unlike Microsoft's browser, which is also free but whose main purpose is to help e-commerce merchants, Mozilla gives you complete control over your security levels, and your browsing experience in general. In fact, if you really want to step into the future of the Internet, you can try its successor, Firefox (mozilla.org/firefox), which is still in testing form. A columnist for the Microsoft-owned cybermedia Slate himself admitted to switching to Firefox, even though the free software is Bill Gates' sworn enemy... But it's when it comes to email that open-source technologies are definitely ahead of the game. If you're tired of spam, for which the widespread Outlook Express offers no solution, know that Mozilla also offers an email reader software, full of useful gadgets and, above all, a very powerful anti-spam filter. In our tests, Thunderbird (mozilla.org/thunderbird) recognized more than 95% of the 9,000 spam messages we received over a six-month period, while mistakenly condemning only about ten legitimate emails. The same cannot be said of some commercial anti-spam products. If you like to fool your superiors at work by chatting on ICQ, MSN Messenger or Yahoo Messenger, you should know that the world of free software has given birth to an equivalent that can communicate with your friends who subscribe to all these services combined, without the spam and intrusion problems encountered with them. This is Jabber technology, which offers all the usual functions of instant messaging, under the interface of your choice. To use it, search Google for the Jabber "client software" that you find the prettiest, because there are dozens of them - we suggest Psi at psi.affinix.com. Then open your Jabber for free on a server near you (we suggest nureality.ca, but there are many others). As for Word, Excel, Power Point and other office software, you can find a free and equally powerful equivalent, without any additional learning, with the OpenOffice suite (oppenoffice.org), distributed free of charge by the giant Sun Microsystems. In our tests, we noticed a few minor formatting errors when reading Word documents. But OpenOffice won't be long before its last bugs are ironed out—and when it does, you won't have to pay a dime to download the upgrade. In fact, more and more businesses are switching to OpenOffice to cut costs, so it might just be a plus on your resume. Even the accounting and business management applications that are so expensive to update for small businesses and freelancers now have a quality open-source equivalent, the free Compiere (compiere.org). Finally, if you want to get into graphic design without spending hundreds of dollars on Photoshop or Illustrator, The Gimp, which has been free on Linux for years, now offers versions for Windows and MacOSX. Its interface is very different from Adobe's, which is the overwhelming majority of professional software, but it offers most of their features, including mastery of complex printing processes. Finally, remember that by adopting free software, you are also supporting a political cause. Open-source has become such a large movement that it could change the face of the computer industry in the next 10 years. Companies as large as Sun, Novell and IBM have started to support the development of free software, which allows you to sell a computer service without paying for intellectual property. The "free software" movement was started 20 years ago by Richard Stallmann in San Francisco. His philosophy is to freely distribute the source code of software (the basic ingredients that commercial publishers keep secret), so that the entire community can work to improve it. Its spearhead is the Linux system, which has become the dominant system on the computer server market. It is still less than 5% in desktop computers. If you really want to move to the free computing side, you will have to convert your entire computer to Linux. But we don't recommend it if you lack courage, because it's still complicated to tame - it's a bit like emigrating to another country. For now, adding free software to a Windows or MacOS system will allow you to rejuvenate your computer without wasting your weekend or your money.

## ###ARTICLE\_START### ID:147

After deepening its losses in mid-session, due to concerns related to the surge in oil prices, the American stock market ended on an indecisive note yesterday evening, while the price of crude fell. The Dow Jones index gained 0.06%, up 6.27 points, to 10,126.51 points, and the Nasdaq index dropped 0.23%, to 1,855.06 points. The Standard & Poor's 500 index lost 1.06 points (- 0.10%) to 1,098.63 points. Trading volumes were low, with 1.37 billion shares traded on Wall Street and 1.66 billion on the Nasdaq. This should continue until the publication of the employment figures for July in the United States on Friday. Meanwhile, the US economic data is encouraging: industrial orders rose more than expected in June and the survey on activity in services confirmed the sector's good health. The Commerce Department reported a 0.7% increase in industrial orders in June after a 0.4% increase in May, compared with a decline of 0.3% announced in the first estimate. On the technology side, the Nasdaq suffered from the poor performance of the telecom equipment maker Ciena and that of the online media and travel booking group InterActive. Ciena fell 24.64% to $2.08 and hit a record low during the session; its turnover will miss the group's forecasts in the third quarter. InterActive fell 15.65 percent to $22.80 after reporting a 25 percent drop in quarterly profit late Tuesday and lowering its 2004 forecast. Computer maker Hewlett-Packard (HP) unveiled its first laptop computer equipped with the open-source Linux software, aimed at business customers, in California the day before yesterday. Shares closed up 0.94 percent at $20.44. Papermaker International Paper gained 0.33 percent. It said it was examining "strategic solutions" for some of its specialty businesses, such as food packaging. Telephone company Qwest fell 5.68 percent to $2.99 after financial group Prudential cut its recommendation for the stock. General Motors announced last night discounts of up to $6,000 on its 2004 models. In the bond market, the yield on the 10-year Treasury note rose to 4.429 percent from 4.422 percent Tuesday, and the yield on the 30-year note edged up to 5.171 percent from 5.163 percent. In the foreign exchange market, the euro was trading last night at $1.2046 against the greenback on Tuesday night, at 133.88 yen against 133.30 yen, and 0.6595 pounds against 0.6605 pounds.

## ###ARTICLE\_START### ID:148

The American stock market was widening its losses yesterday at mid-session, with oil prices continuing to worry investors despite good economic statistics in the United States. The Dow Jones fell 0.31% to 10,089.19 points, the Nasdaq 0.60% to 1,848.29 points. The Standard and Poor's 500 index was down 0.42% to 1,095.05 points. On Tuesday, the Dow Jones had already fallen 0.58%, the Nasdaq 1.73% and the S&P 500 0.63%. Oil prices "will remain the focus of the market until the monthly report on American employment tomorrow," commented Peter Cardillo, principal stock strategist at SW Bach. Oil prices hit new all-time highs in London and New York yesterday, fueled by strong global demand that even OPEC cannot satisfy. In London, Brent crude hit a record high during the session, at $40.99 per barrel, and in New York, the price of the benchmark crude hit a new all-time high of $44.34 during electronic trading before the market opened. US President George W. Bush also indicated that despite record crude prices, he still refuses to draw on the United States' strategic oil reserves. Good economic statistics did not help the stock market rebound. Industrial orders rose 0.7% in June compared to May (an expected 0.5%). In addition, the ISM services index rose to 64.8 in July from 59.9 in June. This figure is higher than analysts' expectations, who had been counting on an index of 61.5. On the business side, Hewlett-Packard presented its first laptop equipped with the free Linux software in California on Tuesday, intended to be sold to professionals. The stock returned to the green: + 0.15% to $20.28. International Paper lost 0.58% to $42.77. It announced yesterday that it was examining "strategic alternatives" for some of its specialized activities (food packaging). The telephone operator Qwest fell 6% to $2.98 after the financial group Prudential lowered its recommendation for this stock. The media and online commerce group InterActiveCorp (IAC), controlled by Barry Diller, fell 17% to $22.53, on negative comments the day after quarterly results showing unforeseen difficulties. The bond market was on the rise again: the yield on the 10-year Treasury bond, which moves in the opposite direction to prices, fell to 4.403% from 4.422% on Tuesday evening and that of the 30-year bond to 5.149% from 5.163%.

## ###ARTICLE\_START### ID:149

In recent months, the major telecommunications players have all announced their intention to switch to IP telephony, the latest being Videotron, which will offer this service to its customers in early 2005. However, in the medium term, these well-established companies will have to face the same problems as the music industry, namely the democratization of new technologies that allow consumers to bypass their service offerings. In September 2003, this column stated that the Internet telephony software Skype would be the first in a series of products that would eventually make telecommunications companies tremble. As you might expect, several emails sent to me by people working within these companies expressed their skepticism. Yet, unlike the music industry, which is desperately trying to limit the damage caused by the repeated assaults of Kazaa, Gnutella and the like through legal means, this new use of P2P technologies by Skype - and the other tools that will likely follow - does not have to worry about copyright issues. The one and only issues here are related to the use of a data transmission network and the per-minute usage costs. The path Or, Skype indicates the path that telephony will take in the long term. After all, high-speed networks have become democratized, wireless Internet is now a reality and P2P and digital audio technologies are now developed. All Skype needed was a version of its software package that could run on new smartphones and, above all, a new generation of portable devices that could operate on digital cellular networks as well as connect to data networks thanks to the WiFi (802.11) wireless standard. Aware of these issues, Skype's designers have launched one after the other, in recent months, the highly anticipated version of the software that runs on the Microsoft Pocket PC operating system and its variations designed for mobile phones, as well as a final version for PC that allows, for a subscription, to call landline and mobile phones, transcending communications that until then were only made from PC to PC. Realizing that multiplatform could only be advantageous for society and taking advantage of the rise of open source, a Linux version of Skype was also recently introduced. New generation However, until this week, only one element was missing to complete the loop: a portable device using both cellular technology and WiFi wireless technology and capable of switching from one mode to the other simultaneously. This has now been done with the upcoming release of a completely new generation of devices, the first of which will be designed by Motorola. Indeed, the Motorola CN620 will be the first in the world to combine GSM cellular technology with that of the 802.11 wireless standard and to be able to switch from one mode to the other without the user seeing anything. The last link that was missing to complete the chain will very soon appear on the shelves of retailers. This announcement by Motorola only illustrates what seemed to be emerging on the horizon, namely a paradigm shift where the real power of communications will rest in the hands of companies like Cisco or Motorola, which are introducing many products that know how to take full advantage of the Internet, and no longer only with the large telecommunications companies which, since always, strong in their quasi-monopoly, rely on a strong centralized infrastructure. By closing this loop with its new portable device, Motorola is sounding the end of these large oligarchies that are the telecommunications companies. To survive, they will have to adapt to this new situation. Starting today, and to quote Philippe Le Roux of VDL(2) again, "the combination of IP telephony and P2P technologies will herald consumers' revenge on an industry that has always held them hostage to closed regulations and standards." Who would have thought? As new devices and software introduced in the coming months become easier to use, expect to see exactly what happened with the music industry or the traditional photography industry. Who would have thought one day that a simple user, without much technical knowledge, would be able to extract the content of an audio CD to appropriate it and share it on P2P networks? Who would have thought one day that the average consumer would bypass companies like Kodak to edit their own photographs? Who would have thought one day that Mr. or Mrs. X would find it normal to do their video editing on their computer and to produce and burn their own home DVDs? And who would have thought one day that I would find it perfectly normal to chat with a girlfriend who, until recently, was wandering around Southeast Asia? And all this without costing us a penny, apart from the Internet connection. As Internet telephony technologies evolve and become accessible to ordinary mortals, expect to see a proliferation of new services that until now still have a bit of a science fiction feel: getting your voicemails or faxes remotely on the Web, using a simple browser, or receiving them by email, is not for tomorrow, or the day after tomorrow, but for today. However, before declaring the death of traditional wired telephony, it is also important to be aware of the limits of IP telephony. Many will want to keep this good old technology at all costs, which offers an advantage that Internet telephony does not currently have: reliability, a powerful argument that Bell is reminding us of these days in its advertisements. Because when the network crashes, what do we do?

## ###ARTICLE\_START### ID:150

"WE ARE in a world of "full", where consumers are asking questions." Mercedes Erra, president of the advertising agency BETC Euro RSCG, sets the tone. While there is no questioning of consumption as such in France, advertisers are faced with increasingly strong demands from the population. "Consumer typologies are no longer as clear as they used to be, needs are satisfied, all of this can be explained by the maturity of consumption," adds Vincent Leclabart, CEO of the Australia agency. In addition, as Ms. Erra points out: "People are worried. They are wondering about the future. They are thinking about their investments, wondering where they are going to put their money." These questions have led consumers to distance themselves from marketing speeches and advertising. "With the Internet, they have more power over brands, more free will," suggests Mr. Leclabart. The greatest distancing is expressed by the "anti-advertising" movements. But it is not limited to groups that thus challenge capitalist society. Even if environmental concerns or respect for social values still come after price concerns, they are present in the minds of the French. "Can we ask a company to have an attitude that values the act of purchasing?" asks Ms. Erra. People have understood that they have economic power, and that they can push a brand or a company to go further in its commitments." "GENERATION OF FREE" But as Gilles Masson, president of Leo Burnett Paris, points out, there is a paradox: "The consumer has never been so expert, but he has never been so lost. There are a lot of doubts in the face of the complexity of scientific discourse," he says. The impact of the presence of genetically modified organisms (GMOs) in food, the various health crises, such as mad cow disease, or theories on global warming raise many questions. "We need to give more meaning to brands, otherwise consumers will not perceive any difference and will go for the cheapest," believes Ms. Erra. "More than ever, we need to give value to mass-market brands," adds Mr. Masson. The challenge is to give them back a dimension of strong innovation, rarity, surprise." However, marketing specialists are focusing on 15-25 year-olds, whom Mr. Masson calls "the free generation," and who are, according to him, a "real time bomb." This age group has become accustomed to downloading music and films from the Internet without spending a penny, and to reading free press titles. "These young people see brands that talk about free," continues Mr. Masson. Car manufacturers offer the air conditioning option for 1 euro, opticians a free second pair of glasses, low-cost airlines offer discounted tickets. Brands are selling off their products with a short-term vision. Free of charge is becoming a criterion for choosing a product. " The spirit of the bounty hunter is developing. Hence the success of hard discount brands, but also, in another register, that of the leader in free software Linux, a real snub by a generation of computer scientists to the hegemony of Microsoft. However, consumers do not hesitate to choose a brand that has spoken to them, without looking at the expense. According to Mr. Leclabart, "you have to surprise, adopt offbeat advertising speeches, develop viral marketing". This real word of mouth, often sparked by the Internet, creates this connivance, this playful link sought by brands with their public.

## ###ARTICLE\_START### ID:151

Mr. Le Lay: TF1 sells "available brain time" QUESTIONED, among other bosses, in a book entitled Les dirigeant face au changement (Editions du Huitième jour), the CEO of TF1, Patrick Le Lay, believes that "there are many ways of talking about television. But from a "business" perspective, let's be realistic: basically, TF1's job is to help Coca-Cola, for example, sell its product." And he continues: for "an advertising message to be perceived, the viewer's brain must be available. Our programs are intended to make it available, that is to say, to entertain it, to relax it in order to prepare it between two messages. What we sell to Coca-Cola is available human brain time. " "Nothing is more difficult," he continued, "than obtaining this availability." The shareholders of the industrial group in difficulty approved, on Friday, July 9, at a general meeting, the capital increase of 2.2 billion euros maximum, essential for the group's recovery plan. Management indicated that the capital increases would be launched before the end of July or in September. Furthermore, the group announced that it would partially close its Neuhausen site in Switzerland in March 2005, and cut 85 of the 140 jobs there. The Ministry of Equipment announced on Friday, July 9, that it had chosen Mandrakesoft, the French representative of the leader in free software Linux, to replace 1,500 servers previously equipped with Microsoft software. The CEO of the technology consulting group Alexis Kniazeff and the co-founder Hubert Martigny announced on Friday, July 9, that "they will be heard in the coming days" as part of the ongoing judicial investigation into the group's 2001 and 2002 accounts. The day before, in addition to Michel Friedlander, the group's deputy CEO, Jean-Michel Martin, the group's deputy CEO, had been indicted. The management of the public company, which had hoped for a wage agreement for the first time in ten years, acknowledged the impossibility of achieving it on Friday, July 9, with only one railway workers' union, the UNSA, out of eight preparing to sign it. The SNCF announced in a press release that it would specify on Monday "the consequences it draws from the absence of an agreement."

## ###ARTICLE\_START### ID:152

NANTES from our special correspondent - Scopitone, a digital creation festival named after the precursor of the video clip, was one of the first to be cut down by the intermittent workers' movement in July 2003, all the more cruelly as this was its second edition. After counting the broken ribs, Scopitone finally took off on July 1st. Bar tickets, bracelets, and 2003 coupons were recycled and consumers were asked to disregard the date indicated. A modest embryo of Barcelona's Sonar (Le Monde, June 22), Scopitone split into two for three days: Scopitone Jour set up on the banks of the Loire, at the Ateliers et chantiers in Nantes, while Scopitone Nuit took over the Halle de la Trocardière in Rezé, and the Olympic, a contemporary music venue in Nantes, which organized the festival. Scopitone fills the curious absence of events dedicated to electronic culture - music, videos, Internet technologies - in the Nantes metropolitan area, with the exception of the IDEAL nights, an original attempt to clear the way for electronic music launched by the Lieu unique, the national stage of Nantes, which also discovered multimedia artists such as Pierrick Sorin. The Olympic therefore took the plunge, with a budget of 418,000 euros, and the support of the mayor of Nantes, Jean-Marc Ayrault (PS), keen to diversify the creative centres. The Trocardière (4,000 seats), to which a marquee (700 seats) was attached, but also the Olympic (800 seats) for the opening and the after-party, welcomed around 9,500 paying spectators from 1st to 4th July in the early morning. With an artistic budget made reasonable by sharing the costs with, in particular, the Eurockéennes de Belfort (for the artists The Rapture, Automato, TV On The Radio), the financial gamble should be met. The stakes are high, because, as Jean-Marc Ayrault pointed out, "Scopitone is a high point that will be based on new cultural venues, planned for 2007 on the island of Nantes". Two centres are under consideration, a workshop for manufacturing fantastic machines and a centre for contemporary music, to be installed in the former boat naves of the Dubigeon shipyards. "We must never fall asleep", adds the mayor. ASSOCIATIVE ACTIVITIES In the entrance of the Maison des hommes et des techniques, at the Ateliers et chantiers de Nantes, the engine of the Lechalas, a river steam launch of the Ponts et Chaussées, built in 1913, is exhibited as a living memory of the shipyards. It is here that the Scopitone Jour offered a mixture of digital installations (Antoine Schmitt, Marc Em, Lab [au]), forums and associative activities. Exquisite corpses on computers for the Saint-Nazaire School of Plastic Arts, defense of free software for Adiasc (Blender project), web radio for apo33, community sharing and quotes from the Situationist International for Zanzara... A daytime anthill: scamps of invented sound weave a web of sensitive wires, others build a Wi-Fi (wireless) television network between the roofs of the Cité radieuse du Corbusier de Rezé, the Trocardière, the Butte Sainte-Anne and the Ateliers Chantiers. The night returns to music, always married here to the image. On July 1st at the Olympic, The Little Rabbits (from Nantes) played the soundtrack they composed for James Bataille, the new film by the Poiraud brothers (from Nantes). Original image montages have noticeably erased the leading roles (Vanessa Paradis, Benoît Poelvoorde, Jean-Pierre Marielle). This is one of the six stage creations supported by the Olympic, a beautiful techno basket of goods, where the Hutchinson from Nantes (walls of sound, walls of television screens), their peers Man, or the Troublemakers from Marseille, witnesses to the great liveliness of the sector in France, are piled up. In the international section, Scopitone has made some choice purchases: the British Matthew Herbert, decidedly gifted, playing on July 2 as a DJ, juggling with Afro-American music, the refrains of the Tom Tom Club and hard techno, followed by the Flemish duo 2 Many DJ's; the surprising Austrians Klaus Obermaier and Chris Haring, videographer and dancer; the Japanese DJ Krush; the German Ellen Allien; and a host of Americans, including the youngsters TV On the Radio and the veteran group (ten years old) Tortoise, whose music has not always aged well.

## ###ARTICLE\_START### ID:153

Thanks to its professional approach, its use of business techniques, and probably also for generational reasons, Ashoka receives a lot of support from entrepreneurs who succeeded in the heyday of the "New Economy". Pierre Omidyar, the founder of eBay, was Ashoka's largest donor. The Franco-Iranian who invented peer-to-peer auctions on the Internet has committed to the record sum of... $20 million in three years. "Before paying the money," warns Olivier Kayser, the association's director in France, "he sent us a team of auditors to examine our working methods." As in a company buyout! Social entrepreneurship is becoming a subject of study for former bosses. Eric Archambeau, one of the French who succeeded in Silicon Valley, now teaches best practices in this area at Insead in Fontainebleau, with several other professors. One avenue is to create a freely accessible knowledge base. "That's what computer science calls open source," he says. The downside is that the return to wisdom in financial markets has reduced some fortunes to their... virtual dimension. Business entrepreneurs have less money, and Ashoka has a harder time getting them to donate.

## ###ARTICLE\_START### ID:154

An AMERICAN who travels the world looking for entrepreneurs, who reserves his meetings for those with the best ideas, who finances only the projects that will generate the highest return on investment... He could be a professional venture capitalist, tracking down the golden company. Almost. Bill Drayton went to the best schools and was a strategy consultant. But the organization he chairs, Ashoka, is not a company. It is a philanthropic association, which took the name of a king who unified the Indian subcontinent in the third century BCE. The heroes Bill Drayton seeks, whom he calls "social entrepreneurs," measure their success not in capital gains, but by the results they achieve against the scourges of the world: disease, poverty and pollution. "These are men or women who we believe are capable of changing the way in which a given problem is currently being addressed within a five-year horizon, and on the scale of an entire continent," explains Oliver Kayser. This 47-year-old Frenchman has just left his position as associate director of McKinsey in Paris to launch Ashoka in Europe. Like any company, social projects are most fragile in their early stages. Ashoka seeks to give them the best possible chances, to provide their initiators with as much as "business angels" do when they support business creators. This involves money. The association pays the Fellows it selects a grant that allows them to live for two to three years. Freed from the anxiety of surviving, these "companions" are thus able to devote all their energy to their idea. Then there is knowledge, skills and address books. Ashoka has around 1,700 fellows worldwide. No two work on the same subject, but many are or have been confronted, at one time or another in their adventure, with comparable difficulties: precise definition of problems and solutions, recruitment and animation of volunteers, marketing of fundraising, even industrial organization... The Ashoka network shares the recipes for effective social action, in the same way as consulting firms that propagate best business practices (McKinsey is one of the sponsors). The line between the two worlds is thin. Experience seems to show that often the methods of business heal the wounds of the planet at least as well as those of the public sector. Examples? There are some within the Ashoka structure itself: the selection process for its fellows is as codified as that of an investor. The association tries to identify the projects itself. It subjects the candidates to several explanation sessions in front of its members, a national committee and then its board of directors, to test their motivation and solidity. Their applications are screened by criteria (creativity, entrepreneurial qualities, social impact, ethics) to predict the chances of success. Once chosen, the new companions (in a given country, one new one per year and per 10 million inhabitants) must regularly report on their activity. But the most striking illustrations of the transfer of good practices are to be found in the field. In Brazil, Rodrigo Baggio is one of Ashoka's fellows. His ambition? To offer adolescents from the favelas of Rio or Sao Paulo opportunities by giving them a minimum of microcomputer skills. What has he borrowed from the business world? An economic model capable of generating its own growth. To reduce the tuition billed to students, computers are recovered from companies that renew their equipment, training centers sell services to associations and communities, and Microsoft has been called upon. Trainers are recruited by trainees: since 1996; Of the 460,000 students who have passed through the school, 1,600 have become its teachers. In India, the franchise business method was adopted by Jeroo Billimoria, a young woman from a minority caste, to help "street children". There are an estimated 48 million of these kids across the country, and the social workers who are supposed to help them are often subject to administrative constraints. The solution developed also borrows from all the techniques of call centers. Her organization, Childline, is in fact a toll-free number that children can call 7 days a week, 24 hours a day. At the other end of the line, they are listened to and advised... by other children. Volunteers who have themselves been through the trials of destitution and gangs without adults, but who have also learned what to expect from child welfare services and how to approach them. "The key is to give them the power to act themselves," comments Jeroo Billimoria. "It's a movement that starts from the bottom up." Call centers are set up in dozens of cities. They receive hundreds of calls: 1,600 per month in Mumbai (Bombay), 1,200 in Calcutta, 500 in New Delhi. They all follow the same rules, the same procedures. "It's a franchise, like McDonald's!" insists the initiator. Like the other fellows, Jeroo Billimoria received the Ashoka grant. But, she says, the association's main interest lies elsewhere: "They believe in you when no one else believes you." Another social entrepreneur, the American David Green, has taken the logic of transposing methods even further. His association is called Project Impact and it now has a presence on several continents, including in India. David Green has tackled blindness linked to cataracts. It is now a benign condition in Western countries, treated by a routine operation. But in poor countries, it remains a scourge. The millions of people affected can no longer work and are deprived of work and resources. However, on the one hand, eye surgery is mastered by few specialists who reserve their services for wealthy clients. On the other hand, the operation requires the fitting of an intraocular implant, a lens, manufactured by Western laboratories and marketed at a high price. David Green likes to talk about "compassionate capitalism". Perhaps inspired by a famous "case" from Harvard Business School on the Canadian Shouldice clinic, specializing in hernias, he has rebuilt an entire economic model around cataract surgery. The surgeons, who work in the clinics he opened, trained mainly in the necessary technique, operate almost on an assembly line. Time and money are saved. Nursing staff and operating rooms are better used. As for the implants, they are now manufactured by an in-house laboratory that focuses on this production without having to finance research or marketing. The operation, all inclusive, costs less than 100 dollars, four to five times less than in a Western hospital. But even this price was still too high for many. Making the operation accessible to all required another innovation. It came from marketing. It is a three-tiered pricing system: the wealthiest patients pay more than the cost price, those with some income pay the cost price, the others pay nothing. There is no control, but the system works. The stakes and the results discourage fraud, says David Green. All the initiatives supported by Ashoka are not of the same scale, but they have in common the vocation to be duplicated from one country to another. In Thailand, Krisada Boonchai, leader of the Economic Recovery Project, is developing the dissemination of agricultural and irrigation methods by associating the country's scientists, usually confined to their laboratories, with the villages in the north of the country, which until now, due to ethnic divisions, never communicated. The discussion forums set up around the technique, with simple geographical and hydrographic maps as the first support, are helping to calm ancestral rivalries. The sharing of water between inhabitants of the upper and lower parts of certain valleys is no longer resolved in violence. In Bangkok, Ashoka has supported several initiatives to help prostitutes who are victims of AIDS. But the organization also sponsors Saree Aongsomwang, who has launched the equivalent (potentially at least) of a National Institute of Consumption. "We have published comparative tests on washing machines!" she says happily. In a country that is opening up to economic progress, the approach is all the more significant as it relies on the use of the media: it publishes its own magazine and produces its own television program broadcast by a national channel. Today, Ashoka is setting up in a region that it had previously neglected: Western Europe. The association raises funds and seeks out the best social entrepreneurs to tackle poverty and failure. With the same methods, the same support and the same ambitions as everywhere else in the world. The same confidence, too. "We are at the center of an emerging network," says President Bill Drayton, noting the proliferation of associations around the world. "It's the same dynamic as economic growth. This form of organization is growing very quickly because it is in the process of catching up." As a wise investor, he is therefore banking on what he calls the "citizen sector." Because it is a growth industry.

## ###ARTICLE\_START### ID:155

After a second edition cancelled in the midst of the intermittent workers' crisis, Scopitone is pulling out all the stops this year with a high-profile line-up combining music, image, live performance and new technologies. The Nantes festival is taking over the Ateliers et Chantiers navals during the day, to raise public awareness of digital creation, with conferences (copyleft, networked audio devices), workshops (software, Wifi, 3D) and the ultimate performance installations in terms of sound-image interaction, including the astonishing Nanomachine by Antoine Schmitt, the sonographic compositions of Servovalve, the immersive device by the Belgian collective lab[au] Spa[z]e 360°, the interactive sound modules of Marc Em, and the concert-show Around Three Gardens. In the evening, migration to the Trocardière, reorganized for two multimedia nights with video projections, dance-video show (Vivisector by Klaus Obermaier, where the body serves as a projection space), VJing on the ten giant screens that will surround the central stage. The musical program is up to the rest with the highly anticipated live of TV On The Radio, a quintet of excited New York punk-groove whose first album Desperate Youth, Blood Thirsty Babes (distribution Beggars) has all the critics going wild. But also Octet, RJD2, The Rapture, Matthew Herbert, Automato, 2 Many DJ's, Funkstörung, Tortoise, Troublemakers and even Krush and Ellen Allien in DJ set.

## ###ARTICLE\_START### ID:156

THURSDAY, JULY 1, Professor Alain Pompidou will take up his duties as President of the European Patent Office (EPO). This institution, headquartered in Munich, was created more than thirty years ago to unify the patent granting procedures of the countries of the European Union and facilitate filings in all the countries of the Community. But, "today, the system only imperfectly fulfills the task assigned to it by its founding fathers", believes the Medef. Keen to raise awareness among the new President of the EPO, but also the French government, the Medef has therefore seized the opportunity. In a "Manifesto for patents" published on Tuesday, June 29, it calls for a simplification of the current system. The first message is addressed to the French government. France has still not ratified the London Agreement, which provides that a European patent should no longer, in the future, be obligatorily translated into all the languages of the countries in which protection is sought, but rather into English, French or German. A provision which, according to Thierry Sueur, chairman of the intellectual property committee of Medef, should halve translation costs, estimated at 12,000 euros on average per patent. But this provision has raised the ire of industrial property consultants and patent translators, which would explain the current deadlock. The second message is addressed to the Commission and all the Member States. It concerns the creation of a single jurisdiction for disputes relating to patents. This institution was to be created within the framework of the adoption of the Community patent (a single patent valid for all the countries of the Union, whereas the European patent must still be filed in each of the desired countries). But no common position has yet been reached on this subject after years of negotiation. Finally, to reduce the time taken to issue patents by the EPO, the Medef also wants to see increased resources; an objective that could be achieved if the EPO did not pay part of the fees collected during filings to national offices. The Medef also takes a position on two subjects that are the subject of fierce discussions. That of software, where defenders of free software (refusing patents on software, already protected by copyright), and industrialists in the sector, anxious to protect their products, oppose each other. The employers' organization supports the draft European directive, which provides for patents for software under certain conditions. On the other hand, on the second subject, France has still not ratified the Community directive on biotechnologies. At the Medef, however, it is believed that the revocation on May 18 by the EPO of the patent filed by the biotechnology company Myriad Genetics (Le Monde, May 21) shows that the safeguards exist and are working, and that there is therefore no longer any reason to be reluctant.

## ###ARTICLE\_START### ID:157

According to the daily newspaper Libération (edition of June 28), Microsoft is said to have offered the Paris City Hall discounts of nearly 60% for the software upgrade of 15,000 municipal computers. As part of a rejuvenation of the computer fleet, the Paris City Hall has launched a study on a possible abandonment of Windows in favor of free software. This work has been entrusted to the company Unilog, which is behind the choice of Linux by the Munich (Germany) city hall. To continue to seduce its prestigious client, the French subsidiary of Microsoft is said to have offered a discount of 57.4% on an initial invoice for Windows of 13.27 million euros, or a final cost of 5.65 million euros. A figure that could still fall as the American firm seems keen to keep its Parisian showcase. Contacted by telephone, Christophe Aulnette, CEO of Microsoft France, refused to confirm. "We do not comment on the commercial relations that we have with our clients," he declared.

## ###ARTICLE\_START### ID:158

STEVE BALLMER, the boss of Microsoft, had even interrupted his skiing holiday in Switzerland to try to convince the mayor of Munich, Christian Ude. But in vain. Despite substantial discounts granted in extremis by the global IT giant, the city council of the capital of Bavaria chose last year to favor free software such as the Linux operating system to equip its computer equipment to the detriment of Windows. The first German regional capital to dare to challenge Microsoft, Munich had caused a sensation. It was even cited as an example last week by the French Minister of Civil Service Renaud Dutreil, who wants to put Microsoft in competition. Today, in Munich, the operational phase is beginning. On June 16, the city council concretized its shift towards "open source" solutions by validating the migration schedule. By 2008, the city hall's approximately 14,000 desktop computers are to be gradually equipped with a new operating system and new free software. The operation has been dubbed "Limux" (a contraction of Linux and Munich). It will cost around 30 million euros, more than a third of which will go towards training employees alone. "By opting for free software, we wanted first and foremost to free ourselves from our dependence on Microsoft, which could dictate the timetable for our IT equipment," explains Ernst Wolowicz, director of the city administration. It was Microsoft itself that contributed to this mini-revolution by giving up providing technical support for the Windows NT system that the city hall had previously used, he suggests. "Our experts estimated that the costs of switching to Windows XP or Linux were more or less equivalent." Microsoft, of course, disputes this calculation. Munich's city hall is not alone in Germany. As early as 2002, the Bundestag (the equivalent of the National Assembly) had chosen Linux for its servers and Windows XP for its desktop computers. More courageous, the small town of Schwäbisch Hall in Baden-Württemberg decided to install Linux on its 350 computers and now claims to have saved 100,000 euros. Large companies, such as Deutsche Bahn (German railways), have chosen Linux for their servers. "Linux is not yet a serious competitor to Microsoft, but it is gaining ground," says Alla Gorelova, an analyst at the Sal Oppenheim bank. "We are expanding," confirms Holger Dyroff, vice president of Suse Linux, the leading distributor of free software in Europe. But the movement is only just beginning. More and more German municipalities are considering equipping themselves with free software to reduce their costs and protect themselves from viruses, which primarily attack Microsoft software. Munich will set an example, says Ernst Wolowicz: "Other cities will first have to wait and see how things will work out here."

## ###ARTICLE\_START### ID:159

For you, users of the Windows platform, and only for you, in these times when surfing the Internet is less and less secure, here are some tips - free - that will allow you to bypass the small security holes that affect the Microsoft Internet Explorer browser and the Outlook and Outlook Express email clients. Readers who bite the Apple or who tame the Penguin should move on, this does not concern them, happy as they are to surf the Internet without experiencing too many of these typically "Windows" problems. Last Friday, another security alert concerning users of the Windows operating system was launched. According to the heads of several security firms, hackers of Russian origin have infected thousands of Internet sites by using known security holes. However, a much greater danger awaits Internet users who have the misfortune to visit these sites. Indeed, the "contamination" of these sites has been carried out in such a way that the Web pages consulted by visitors contain Javascript instructions that discreetly connect Internet Explorer to a Russian server in order to download a Trojan horse onto their computer. This malicious code is said to consist of a keystroke logger and software tools designed to take remote control of a PC. In short, these hackers take advantage not only of the vulnerabilities in the server software, but also of the browser, Internet Explorer. However, what these hackers take advantage of the most is the blind negligence of Internet users. No excuses Again, since we have to tell you this regularly, have you installed security software packages such as a firewall and an antivirus that has been updated recently? If, like many people, you neglect to do so, or if your means prevent you from acquiring these tools, may we suggest a free firewall like ZoneAlarm and a free antivirus that updates automatically like the one produced by AVG Antivirus? There is no excuse for protecting yourself and others. However, let's not stop there. Without telling you to change Windows for Penguin for example, there are some little things - still free - that can be done to limit the potential damage and the malicious code produced by these smart guys. Since the source of some of the problems seems to be the Internet Explorer browser, and also, to a lesser extent, for other types of attacks, the Outlook and Outlook Express email software, what would you say about changing your browser and email client? Thanks to the open-source software community, adopting an Internet suite like Mozilla, a worthy descendant of Netscape, and which integrates a browser and email software, would reduce the efforts of these Russian hackers to nothing. And for those who want a simple browser and powerful email software, nothing beats the Firefox browser and the Thunderbird email software, themselves derived from Mozilla's code. Totally safe In addition to being completely respectful of the norms and standards of the Web, which means that they guarantee you almost problem-free browsing on the Web, the Mozilla or Firefox browsers are, according to the latest news, totally safe. In addition, these two browsing tools isolate you from "pop-up" type advertisements. As soon as they are launched, at the first "pop-up" advertisement encountered on the Web, these browsers ask you if you want to block these annoying windows that appear out of nowhere. From the moment you say yes, I do, you will never again be bothered by pop-up advertisements. In addition, all plug-ins such as Flash, Acrobat, Quicktime or Windows Media will continue to work in the same way as with Internet Explorer. In short, browsing the Web with Internet Explorer or with Mozilla/Firefox is exactly the same. The vast majority of Internet users will not see any difference, except in the case of "pop-up" advertisements. There are even "Google-like" search bars for Mozilla/Firefox. And again, these simple solutions are free. They will only take a few minutes of your time. And it's exactly the same with this other potential source of contamination that is email. By combining an antivirus software like AVG's with the email software integrated into the Mozilla suite, or the independent software Thunderbird, the risks of being contaminated or of contaminating one of your correspondents are minimal. However, Mozilla Mail or Thunderbird have a little something that all Internet users will appreciate to the highest degree: a very effective anti-spam filter. By activating this anti-spam filter, and occasionally training it to recognize particularly stubborn "spam", you can practically say goodbye to spam. In short, and we can never repeat it enough, by adopting these simple little free tips, and by regularly updating your Windows operating system, you will not only protect your computer from any malicious attack, but you will limit the risks of infecting your correspondents and friends. Be responsible, so take a few minutes to install these few programs. This is the plea that all the specialized columnists in the world and all the managers of companies working in the field of security address to you.

## ###ARTICLE\_START### ID:160

Are administrations experiencing a honeymoon with free software? All over the world, Microsoft, long a quasi-monopolistic supplier, finds itself in competition with these programs designed by thousands of computer scientists around the world and which can be copied and modified without restrictions. Bergen, Norway's second city, announced last week that it was following Munich's example and would replace its Microsoft software with Linux and other free programs. On June 18, the French Minister of Civil Service, Renaud Dutreil, urged government services to consider Microsoft as "a government supplier among others", in a statement to Reuters, specifying that "free software has become a credible alternative, both in terms of price and functionality". Their presence in French administrations was until now reserved for servers. Workstations, however, remained the preserve of the Windows operating system and Office for office automation (word processing, spreadsheets, etc.). This situation is changing: at the Ministry of the Interior, police stations are equipping themselves with OpenOffice, the free competitor to Office. The Mozilla web browser is nibbling away at the Explorer of Bill Gates' firm. "Dutreil's declaration is an important political signal that will have an impact on the choices of administrations," emphasizes Jacques Le Marois, one of the founders of Mandrakesoft, which distributes a version of Linux. The advantage of "free" for the State? "There are economic advantages," emphasizes Bernard Benhamou, in charge of prospective at the Agency for the Development of Electronic Administration. But he also mentions "sovereignty" - this avoids depending on a single American publisher - and "sustainability" - the State can adapt its software according to its needs without depending on the strategic choices of the publisher. The head of Microsoft France would like the State to avoid "ideological choices." And considers himself ready "to take up the challenge of competition."

## ###ARTICLE\_START### ID:161

Microsoft's objective is clear: at a time when a growing number of administrations around the world are choosing free software over Windows (see opposite), there is no question of losing the City of Paris. Even if it means slashing prices. According to a document that Libération has had access to, the company has offered the municipality a discount of nearly 60% for the equipment of 15,000 computers. Enough to encourage it, in the coming months, to renew its commitment to Bill Gates' firm. The battle over the City's IT dates back to the arrival of the Delanoë team at the town hall. They found "outdated" IT there, according to the office of François Dagnaud, deputy in charge of general administration. A new master plan is being studied to modernize the fleet which, like most administrations and companies, gives pride of place to Microsoft software. Humiliation. Then came the Munich affair: in May 2003, the social-democratic city hall opted for a radical change. By 2008, 14,000 workstations would be equipped with Linux, the free operating system that competes with Windows. A world first for a city of this size and a humiliation for Microsoft. However, the boss Steve Ballmer had made the trip to plead his case. Despite the cost of the migration, Munich hoped to save money. Above all, it emphasized independence from a single, ultra-dominant supplier. Because this is one of the characteristics of free software: designed by thousands of computer scientists, often volunteers, they can be copied and modified at will according to the needs of users. In October 2003, the Paris city hall decided to launch a study on the hypothesis of a migration from Windows to free software. It was entrusted to the services company Unilog, the same one that had worked on Munich. At Microsoft, tensions were rising. On January 14, a "commercial proposal" was sent to Philippe Schil, the city's IT director. It covered the equipment of 15,000 workstations over three years, for a cost estimated at 13.27 million euros under current conditions. And offered a nice discount with a final bill of 5.65 million euros, or a 57.4% reduction... A figure that could still drop, as the company is determined not to let the market be stolen from it. "They fear the symbolic effect of losing Paris more than anything," says someone close to Delanoë. Be careful. Is the municipality ready to take the plunge? It appears above all that it is playing on Microsoft's fear to lower the bill. In April, François Dagnaud went to Munich to be presented with a "political" choice: "It's not Paris' choice, the main thing is that it works," they say in the entourage of the deputy mayor. A caution that is starting to irritate those on the left who would happily see Paris dismiss Microsoft. "Delanoë advocates participatory democracy," comments Maurice Ronai, national delegate for new technologies for the PS. "For daycare centers, socialist elected officials do not fail to consult neighborhood committees. But as soon as it concerns IT: out of the question." The Unilog study should be made public in the coming weeks. And a choice made in the process. The European Commission yesterday granted a reprieve to Microsoft, which is supposed to offer a version of Windows without the audio-video software Media Player today. Pending a court decision on the firm's appeal against its conviction for abuse of a dominant position in March.

## ###ARTICLE\_START### ID:162

THE GOVERNMENT wants to save money and halve the cost of computer programs used by the State by using free software. This was stated by the Minister of Civil Service, Renaud Dutreil, in an interview with the Reuters press agency, published on Friday, June 18. Linux, the leader in free software, and the others (Open Office, Mozilla, Apache, etc.) will now be in competition with Microsoft, which will once again become a supplier among others. "In the next three years, a large part of the software licenses for the State's 900,000 computer workstations will have to be renewed. For office products alone (word processing, spreadsheets, etc.), the financial stake is more than 300 million euros," says Mr. Dutreil, who wants the ministries to study very seriously "all the solutions to reduce this bill." This desire goes beyond office software and also concerns operating systems, Internet navigation tools and e-mail. According to Mr. Dutreil, free software players "are now a very credible solution, particularly in terms of security, (but also) in terms of price and functionality." In Europe, several public administrations have recently switched part of their information system to free software, particularly in Germany and the United Kingdom. France is not far behind, since the ministries of agriculture, defense, culture and equipment have already signed contracts to carry out the same change. "We are delighted that France is setting an example in this way," says Jacques Le Marois, co-founder of the free software publisher MandrakeSoft. "This will encourage other countries as well as major companies to adopt Linux and free software." For Mr. Le Marois, "the main advantages offered by free solutions are independence from the publisher, low costs, but also insensitivity to most computer viruses in circulation." Microsoft, for its part, says it is ready to contribute to reducing the overall cost of government IT expenditure. "Free software can be a false good idea, because the cost of its associated services can be explosive," warns Christophe Aulnette, general manager of Microsoft France. The debate goes beyond the cost of software, which is relative, compared to the overall cost of IT expenditure. On average, software only represents 3% to 5% of the overall IT cost, rarely more than 10%." Until now, in government departments, the use of free software was only considered for servers, where the loss of markets does not represent a danger for Microsoft. Government departments are now considering replacing part of their office programs. "The first tests with Mozilla (an Internet browsing and messaging program) and OpenOffice (an office suite) were conclusive," says Mr. Le Marois. At the same time, Mr. Dutreil also wants to reduce the State's telephone bill, by allowing it to benefit from cost reductions made possible by new technologies, particularly voice over Internet Protocol (VoIP). "The State's telephone bill is 260 million euros per year," explains Mr. Dutreil. "I think we can reduce it very quickly by a quarter by using voice over IP technology for all communications between administrations. There are (on the telecommunications market) various competitors to France Telecom who would be just as capable as the historic operator of meeting this expectation. We will obviously select the best bidder."

## ###ARTICLE\_START### ID:163

If George W. Bush is defeated in the November 2 presidential election, he will owe it in part to Ron Suskind. And to the man whose testimony he collected (along with that of many other men in power), Paul O'Neill, former CEO of the aluminum giant Alcoa, who was called by Bush to the crucial post of Secretary of the Treasury in early 2001, a post from which he was dismissed in late 2002, because of his hostility to the "Reaganite" economic policy of a president convinced that "Reagan demonstrated that budget deficits don't matter." "But I am certain that, if Reagan were still alive and in full possession of his intellectual capacities, he would have approved of O'Neill because, contrary to the image given by Bush's supporters, Reagan was a pragmatist," says Suskind. This former head of the Wall Street Journal's political department and recipient of the main American journalism prize, the Pulitzer, believes that "the 2004 election will be played out less on economic issues, where Bush's record is mixed, than on Iraq." Americans will say by their vote whether or not they feel that their president has deceived them, and whether or not they want the imperial adventure he has launched them into and which leads the American army to fight in two countries, Iraq and Afghanistan, to (at least according to official propaganda) promote the installation of democracy there. What Suskind's investigation, based on the 19,000 official documents (1) communicated to him by O'Neill and on more than a year of investigations, demonstrates beyond reasonable doubt is that Bush has indeed lied to his compatriots, as well as to the rest of the world. And that "no president [before him] has engaged the United States in such an arrogant project, which borders on temerity", on the basis of what can only be described as an act of faith, in the religious and ideological sense of the term. "His actions," explains Suskind, passing through Paris, "are perceived by him as expressing divine will. Religious fundamentalism is in vogue, including in the United States where 46% of the population defines itself as evangelical Christian. Bush, who has clearly adhered to it, draws from his faith the basis of his policy and asks Americans to also have faith in him", since God is on America's side. If this "noir novel" is, according to the New York Times review, "an incomparable contribution to history", it is because it is the antithesis of most books, films and so-called documentaries which, in the tradition of Michael Moore, act as anti-Bush propaganda by claiming to "reveal" dark plots to explain the Iraq War and by caricaturing "Bushism". Reading this "novel" which is not one is at times difficult, particularly in the pages devoted to economic and financial policy. The perpetual self-satisfaction of Paul O'Neill, transformed by Suskind into a blameless hero, is exasperating and suspect. But we are incontestably at the heart of the power of the hyperpower. The "why" of the Iraq War is very clearly explained by one of the participants in the deliberations that led to it, which began on January 30, 2001, long before the World Trade Center and barely ten days after the 43rd president's inauguration. "A new direction had just been decided at the summit," O'Neill notes... "The initial assumption was that Saddam's regime was destabilizing the region, and that it was clearly likely to have weapons of mass destruction... Iraq was the main subject." Defense Secretary Donald Rumsfeld explained from that date "the need to 'dissuade' others from creating asymmetric threats... to demonstrate America's new resolve unilaterally... and 'how' overthrowing Saddam would help 'dissuade' other countries from following the same path." The original subtitle of the story, The Education of Paul O'Neill, emphasizes the dimension of discovery of the inner workings of an American administration. The Treasury Secretary, a member of the classic and moderate Republican establishment (he worked in the Nixon and Ford administrations), a friend of Vice President Cheney, discovers with a mixture of astonishment and horror that the White House of George W. Bush is a bunker where ideologues (the neoconservative Paul Wolfowitz or Cheney himself, who appears as the true éminence grise of power) and emulators of Machiavelli (the political advisor Karl Rove, driven by the certainty that "history is always written by the victors" and that "the only thing that matters is winning") rub shoulders. These men form a praetorian guard around a president whom O'Neill ends up describing, in a now famous remark, as "a blind man in a room full of deaf men." Not the puppet and the idiot that his enemies mock, but a man with limited baggage and curiosity, prisoner of the arrogance of his religious and ideological convictions. A dangerous mix of cynical calculations and blind faith, which does not hesitate to launch "a war by choice and not by necessity". And does not shy away from any manipulation to justify it. (1) Suskind has begun, unprecedentedly, to make these documents available to everyone by publishing them online on his website ronsuskind.com. It is, he says, "the equivalent of Linux, the free software, for investigative journalism. Everyone can have access to my sources..."

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Free software comes out of the closet and makes its debut in the Quebec government. Although we must deplore the little attention paid to the Gautrin report, this does not mean that those working on the implementation of the future online government do not attach importance to the major upheavals in the IT scene. In a move that may seem surprising at first glance, the secretariat of the Quebec Treasury Board organized a day of reflection and conferences on free software last week. All the big names in free source code software were on hand to take stock of this movement that is gaining momentum, not only within businesses, but also in world governments. No one can deny that today free software represents a valid replacement solution compared to proprietary software. Several governments, particularly in Europe and Asia, have already integrated free software into their operating methods. For example, the French government intends to reduce the cost of acquiring licenses by offering free software publishers the opportunity to participate in calls for tenders in the same way as publishers of proprietary software packages. Open competition According to Renaud Dutreil, Minister of the French State Civil Service, "competition is open. My estimate is that we can at least halve the State's bill. What is clearly evident is that solutions built on free software have now become a credible alternative to the use of proprietary software, both in terms of price and functionality. I think that this software deserves a more important place on government workstations." The minister specifies, however, that this new approach by the French State towards free software is not a declaration of war on Microsoft and all other publishers of proprietary solutions. For Renaud Dutreil, these companies will simply become State suppliers again in the same way as so-called free solutions. For its part, following last week's day of reflection, the Conseil du trésor du Québec launched a website designed to take stock and inform the "government apparatus" on the issues surrounding free software. In addition, moving from words to action, the Conseil du trésor is providing financial support to two major projects: the MILLE project, which we have discussed many times in these pages, and RESOLL, the Open Standards and Free and Open Software Expertise Network, a product of CIRANO that brings together university and institutional partners from various backgrounds. The goal of RESOLL is to "demystify the advantages of standards and free software and to propose intelligent and advantageous use of them for public and parapublic organizations and SMEs." Letters of nobility For two years, the adoption of free software by the business community has been clear. With IBM constantly promoting free initiatives and investing substantially in free-source software projects, "OpenSource" has earned its letters of nobility. Since the end of 2003, it is now the States that are beginning to trust free software and to put it on the same footing as proprietary software. The gesture of France is only one among many others. Although timid, the initiative of the Quebec government has the merit of informing the government machine of the current issues. In October 2003, I predicted in an article "that the Microsoft we know today is condemned to change radically or perish". More than ever, with these initiatives that are coming from all sides, I maintain this assertion. 2005 will be the year when preconceived ideas about free software will change. "OpenSource" no longer scares IT managers. It is often even the solution to their problems. 2005 will be a pivotal year in the software world. Nothing will be the same again for the proprietary software industry. It will have to learn to deal with free software, or die a slow death. Doesn't that remind you of what we say about the music industry?

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The fall is looking difficult for Microsoft, the world's number one software publisher. The French government has decided to launch a call for tenders at the start of the school year to renew its office software (word processing, spreadsheets, etc.). Around 900,000 government microcomputers (our editions of June 17) are equipped almost exclusively with programs provided by Microsoft. And the government hopes to halve its bill by putting Bill Gates' firm in competition, in order to contain its budget deficit somewhat. "The government does not have an ideological approach," rejoices a Microsoft representative in France. Renaud Dutreil, Minister of the Civil Service, confirmed to the Reuters agency: "We are not launching a war, neither against Microsoft, nor against American companies in the software sector. Microsoft must become a government supplier among others." This public market is highly coveted. Over three years, the purchase of office software alone by the State amounts to "between 300 and 400 million euros", according to the entourage of the Minister of Civil Service. Fearing the worst, Christophe Aulnette, CEO of Microsoft in France, pleaded the cause of the global IT giant last week to Renaud Dutreil and Eric Woerth, Secretary of State for State Reform. He explained that the city of Munich ultimately paid 10 million euros too much by opting for the free software Linux, which equips 15,000 workstations compared to the IT solution proposed by Microsoft. According to Christophe Aulnette, "we must take into account the overall cost over three years: the supply of programs, maintenance, training and the development of future solutions". Nevertheless. In a second phase, the French government should also open up the market for operating systems to competition, the program that gives a microcomputer its intelligence. No evaluation of this contract has been indicated. The order of magnitude is, according to our estimates, around 200 million euros. The government is examining four competing solutions, proposed by the companies MandrakeSoft, SuseLinux of the American Novell and RedHat. Finally, the American Sun Microsystems, chaired by Scott McNealy, is in the running with its Solaris operating system and its Java Desktop System office suite. It is Microsoft's most formidable competitor. Its solution was chosen by the cities of Munich (Germany) and Houston (Texas). Finally, for its large databases, the State is studying solutions using free software, in fact free to copy, license and modify but which remains chargeable. The government has not yet decided on the form that its order for office software will take. It could be a global call for tenders for all the State's microcomputers or a contract awarded ministry by ministry. Finally, the government will put France Telecom into competition for the provision of its telecommunications services, again with the aim of reducing its expenses.

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The government wants to halve the cost of computer software used by the State by turning to free software publishers. They will thus be put in competition with Microsoft. Renaud Dutreil, the Minister of Civil Service, also wants to reduce the State's telephone bill by 25% by using Internet telephony. France Telecom will therefore also be put in competition with other operators. "We can at least halve the State's software bill," Dutreil assures Reuters. And free software, such as Linux, OpenOffice, Mozilla, Apache, MySQL, Evolution, constitute, according to him, a "very credible solution." According to Reuters

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After a prolonged gestation period, which allowed its designers to found their company, Révolution Linux, in collaboration with the University of Sherbrooke, launched last week the 2004 version of the Quebec distribution Édulinux. On the program, in addition to improved performance, the addition of new open-source software such as the Firefox browser, the Thunderbird email software, the latest version of the OpenOffice office suite as well as brand new applications such as Scribus, a "Quark Xpress" page layout tool, Kdenlive, a DV video editing application and Inkspace, a vector drawing software package. The content of three of the four EduLinux CD-ROMs is available free of charge on the EduLinux.org website. This download includes most of the suite, except for copyright reasons, certain software such as Acrobat and Flash, available only in the version intended for resale. The four-CD-ROM version, including these so-called proprietary software, is sold for twenty dollars in the COOPSCO network and will soon be available in other specialized points of sale. It is also possible to order it on the Révolution Linux website and on the EduLinux website. By the way, it is not only legal to make copies of the CD-ROMs for your friends and acquaintances, but the designers of Edulinux strongly encourage you to do so. Obviously, buying the box version in a store for $20 will allow the developers to continue to improve Edulinux. By the way, we will soon tell you more about Edulinux 2004 in detail.

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Alliance Novare helped a young company take its first steps outside the walls of the Université de Sherbrooke. It is currently looking at five or six projects that, in the short term, could lead to the creation of high-tech companies. Coming out of the shadows where he was while structuring the organization, Alliance Novare's general manager, Denis Élias, former president and founder of Sisca, can now report on the progress made over the past nine months. Alliance Novare is the result of a collaboration between the two Sherbrooke universities, the City of Sherbrooke and business people. Its goal is to help university researchers translate the results of their research into businesses. By taking options on the shares of these companies, Novare will then be able to reinvest this money in research chairs, laboratories or equipment. In an interview with La Tribune yesterday morning, Mr. Élias explained that the bulk of the energy was first devoted to the physical implementation of the organization. It was necessary to equip it with the necessary telephone and computer equipment. It was necessary to create the support material that will help the researchers set up their business project. In short, everything had to be done when Mr. Élias was hired in September 2003. "When I arrived, I only had a tablet, a pen and a telephone. I had to devote 80 percent of my time to the organization. In the last three months, we have made a lot of progress. Starting at the end of the summer, we will begin to reverse the trend. For 80 percent of the time, we will work with the researchers and the remaining twenty percent will be taken up by management," explained Mr. Élias, saying that he is not deaf to the signs of impatience he senses around Novare. Already, he reports, Novare has given a helping hand to those responsible for Révolution Linux, the young academics who created an operating system capable of competing with Microsoft and which they offer for free. Novare helped them get out of the walls of the Université de Sherbrooke and prepare to commercially exploit everything that can surround their free software. Furthermore, Novare is currently studying projects that have been submitted to it by young promoters. According to Mr. Élias, there are currently six files on the table. Three of them come from outside, including, he specified, a project for an anti-pollution system that can adapt to all kinds of sources of pollution. For their part, three other projects come from researchers at the Université de Sherbrooke, including a project from the Faculty of Engineering, a project from the Faculty of Applied Sciences and a project from the Faculty of Administration, in information technology. Novare is also in the process of equipping itself with a database that would contain the contact details of at least 70 people, collaborators, investors, specialists, mainly business people involved in high technology and who could, through their specific expertise, help young entrepreneurs achieve their dreams. "When we are up to speed, we will be able to intervene more quickly thanks to this database. We could use these people, for example, to provide mentoring. They could participate in management committees. They could invest." Denis Élias says he has given himself three years to build Novare. Such a structure, he says, requires time. It cannot be efficient in just a few months. There are similar ones in France. In Liège, it has existed for 8 years. In Montpellier, for 18 years.

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IN THIS 2004 RANKING OF HIGH-PERFORMANCE SME, established by Le Figaro Entreprises, Coface SCRL and France Bleu, Picardy, which is known to be agricultural and working class, can also be seen as being oriented towards technological activities with Zeni Corporation, creator and host of Internet sites, and Triangle industries, manufacturers of acoustic speakers known throughout the world. As for the winner, L'Européenne de surveillance, it was able to take advantage of the exceptional Roissy market. Out of fifty champions, in addition to Zeni and Triangle, thirteen other companies in this 2004 list were already present last year: Garages François (10th this year), Soreco (11th), Etablissements Lucien (12th), Tris Plis (14th), Société anizyenne de construction (SAC, 15th), BHF Delaplace (18th), Emball'infor (20th), Mazet (23rd), Cortel Équipement (27th), Jonnet (29th), Electroplus (33rd), L'Arlequin (36th) and La Métallerie picarde (42nd). European surveillance focuses on training On September 11, 2001, the workforce increased from 130 to 190 people in twenty-four hours. At 31, Michel Meunier, manager of L'Européenne de surveillance, located near Clermont, in the Oise, is riding the wave of rapidly growing demand. The tension is far from having subsided because the security of industrial sites or sites welcoming the general public is constantly being strengthened. Servair and Chronopost in Roissy, General Electric factories, cosmetics manufacturers, shopping centers: these major clients represent 80% of the company's activity, which also counts individuals and municipalities among its customers. Self-taught, Michel Meunier was, in 1992, the first employee of his company with his dog. In 1997, his small business under his own name became an LLC and two years later, it employs 100 employees. Today, after the surge in 2001, it has 160 people. "The challenge now is recruitment," emphasizes the business manager. Low-paid and undervalued, the security guard profession has a turnover of nearly 30% per year in France. "We are at less than 12%," says Michel Meunier, who has created his own training center. L'Européenne de Surveillance recruits five people per month. New employees follow a three-day integration module, then, after six months of seniority, a week of training. Every year, employees follow three days of continuing education. "Without the center, we would be dead," summarizes Michel Meunier. The law will, in fact, increase the recruitment requirements for security guards by requiring them to hold the professional qualification certificate (CQP). "However, there are very few training centers in France," emphasizes Michel Meunier, who spends 150,000 euros per year on training with the support of European funds and the regional council. Candidates often have a very low level of qualification. One of the company's tests is to check that they can read and write, if only to fill out the electronic log developed by the European Surveillance Authority. It allows site managers to connect to the security post at any time and find out the details of rounds, entries and exits. In December 2003, the company was ISO 9001 certified. "This is proof of our commitment to quality despite our size," insists Michel Meunier Triangle industries, everything for music Music lovers are ready for anything. When he put loudspeakers on sale at 30,000 euros a pair, Renaud de Vergnette thought he would sell six of them in the year. He sold thirty-five of them, in Vladivostok, London, Berlin and Beirut. For these buyers, the purchase of these Triangle loudspeakers followed the same principles as that of a Ferrari. "We are conveying dreams," insists Renaud de Vergnette, 53. He began tinkering with his first speakers for friends in 1975. Triangle Industries has become the most fascinating hi-fi brand for music lovers. Not all of its customers can afford a Ferrari. "In a range of around thirty models starting at 380 euros per pair, the best-selling speakers are those that cost 1,200 euros per pair." Prices that are not comparable to those usually charged in mass-market stores, where a complete hi-fi set costs almost 300 euros. "The constant drop in prices is shattering dreams," Renaud de Vergnette fumes. The founder of Triangle Industries carefully selects his distributors to ensure that they will never slash prices. The company director is not averse to using production plants in Southeast Asia to supply himself with basic products, which are then carefully assembled in his Soissons factory. "We produce our own speakers to obtain consistent quality," he explains. "The parts we import are manufactured exclusively for us, according to our own plans, in factories where we invest in the tools ourselves." "Our goal is not to lower prices but to offer the best possible products," insists Renaud de Vergnette. Triangle invests 4.5% of its budget in research and development. The very difficult market last year was nevertheless driven by the public's enthusiasm for home cinema, which is gradually taking over from stereo. "We have hired a dozen people in two years," explains Renaud de Vergnette, who is aiming for a turnover of 15 million euros in the next five years. Today, the company generates a quarter of its turnover abroad. The main export markets are South Korea and the United States. Zeni Corporation, a series of websites Last year, this website creator-hoster was already in the top three. This year, after the sudden death of Olivier Gutenberg with whom he had founded Zeni Corporation, Dimitri Batsis took over the reins of the company alone. In a new economy market that has now stabilized, where customers are rare and, above all, very demanding on costs, Zeni Corporation, which is located in Chantilly, has several assets to assert. "There are more and more requests for sites under Linux," notes Dimitri Batsis. "Even administrations are getting involved." Zeni, which employs around thirty employees, equips 70% of its sites with the famous free software without license fees. Zeni Corporation has also innovated by industrializing its products. "Peugeot wanted to open websites in all the countries where its subsidiaries were present," says Dimitri Batsis. "It was impossible to offer an identical product for everyone because a Chinese customer does not have the same demands as a Portuguese customer, for example." Familiar with custom-designed sites, the company's IT specialists changed their way of doing things by offering Peugeot kits to be adapted in each country. Each subsidiary filled out the site model provided to it according to its own needs. Dimitri Batsis now wants to sell this know-how to other large groups. The first targets are French. But the Zeni boss is also eyeing foreign markets through subsidiaries to be opened at a minimum rate of one every two years. The Geneva branch, opened in 2003, is starting to bear fruit.

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Supporters of free music exchange on the Net, defenders of free software, Greenpeace activists, representatives of SMEs specializing in hosting sites. It was a very heterogeneous procession that marched Saturday in the streets of Paris: around 1,000 people had turned out "against liberticidal laws that stifle individual and public freedoms in the information society". Freedom. An appeal had recently been launched by several associations for the defense of freedoms and Internet users' collectives, including the Fédération informatique et libertés (Fil), the Odebi league, and the Ouvaton host. Organizations such as Act Up, the Confédération nationale du travail (CNT), as well as the Greens and the Communist Party supported the movement. Particularly in the crosshairs of the demonstrators who were gathered behind a Free The Net banner, the law for confidence in the digital economy (LEN), adopted on May 13 by Parliament, and soon to be examined by the Constitutional Council. An example of a provision that revolts web specialists? It will now be up to the hosts to judge the illegal nature of the sites: "We will have to replace the justice system, we are not censors," complains Stéphane of Waycom International, a company that hosts around a hundred sites. The demonstrators were also protesting against the legalization of anti-copy devices on CDs. "If we authorize the general locking of CDs, not only is it an attack on the right to private copying, but it will also force individuals to buy equipment that can read this new type of CD," explained Christophe Espern of EUCD Info, a collective of Internet users. Copies. In defiance of these future provisions, he decided to put online the software that neutralizes the anti-copy devices. With his comrades, he also distributed leaflets this week in front of the Fnac in Paris on which one could read "Have you just bought a CD? Check right away that you can copy. As long as you have the right to do so." Another anger: software should soon be protected by patents. "A brake on their free use," according to Frédéric Couchet of the April association. And on Saturday, Thomas, a 24-year-old computer engineer, wanted to raise awareness of this issue: he grabbed a megaphone, climbed onto a bridge on the Saint-Martin canal in front of which the procession was passing, and forcefully began to sing in English: "Join us and come share free software!", the anthem of the FreeSoftwareFoundation, an organization of American origin that campaigns for free software throughout the world. Like the majority of people present on Saturday, Thomas had been informed of the parade via a mailing list of Web users to which he belongs. "Our calls are widely relayed on the web," says Erick Aubourg of GlobeNet, an association that defends the associative and solidarity Internet. "But if we only exist on the Web, even with tens of thousands of Internet users, we will still have no weight on politicians," he concluded, at the Bastille, the end of the parade.

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FROM THE QUESTION of the veil to the opening of marriage to people of the same sex, the France of professional debaters loves nothing more than these heated fights that occupy the media and political arenas... while lamenting that they take up so much space there! At the ball of hypocrisy, the worldly dancers jostle each other. And, to better excuse their haste to enter the dance floor, they point the finger at the supposed conductor, they disguise him as a nasty provocateur, a troublemaker or, alternatively, a media obsessive. To each his own scapegoat. By taking the risk of the cabal, of trials for opportunism by those who do not lack them, of insults of all categories and of the possible divorce with part of my local electorate, I am only remaining in line with long-standing commitments on the ground of freedoms and equal rights and with the constant line of the Greens concerning social issues. My initiative is therefore political, and I claim it as such. The proof, if any were needed, is provided by society itself, which has seized the debate at all levels, from the Café du Commerce to the highest levels of the State. If the controversy has taken on such magnitude, it is because it touches on the foundations of our social organization, because it affirms the legitimacy of a minority sexual orientation, because it disturbs our social vision of the couple and the legal union, our conception of the family and, therefore, the idea that we have of filiation. Was it necessary to prohibit ourselves from launching such a debate? According to what principles would there be a political moment rather than another to shake up prejudices and move the lines of a society? If the Neuwirths, the Badinters, the Simone Veils had waited for the "right" moment, if the "343 sluts", the conscientious objectors, the Lips and the Larzacs, the Cohn-Bendits and the Bovés had not "disobeyed" and taken the risk of "provocation", our old country would still be riddled with archaisms that seem light years away from today. It is the responsibility of a politician - it is even the nobility of his mission - to take risks in front of society when it comes to defending a cause that he believes to be just. It is the virtue of democracy to allow society to debate and choose. The political function consists of opening and not closing the democratic debate. What is it about, in fact? To defend a certain conception of the rule of law of which equality is a founding principle; to affirm that sexual orientation, like race, religion, political opinions or disability, must no longer constitute a barrier to access to rights and the enjoyment of freedoms. From this point of view, the excesses of the controversy we are witnessing, where reason often resigns to fear and mistrust, illustrate to the point of caricature this typically French difficulty in accepting the plurality of modes of existence as an integral part of social pluralism. After the law on the veil, which stigmatizes a religion and contributes to ethnicizing social relations, this blockage on the opening of marriage to persons of the same sex is a new worrying sign of the weakening of plurality, the basis of our republican contract. The acceptance of plurality is the condition of an open society in which the "promise of universality" is not presented as a threat, but as an opportunity. Defending an open society means rejecting the Sarkozy and Perben II laws, fighting against the bio-informatics markers that will allow Big Brother to track us twenty-four hours a day, defending free software, engaging in a merciless fight against the transnationals of life that want to patent everything; it also means denouncing an economic system that excludes entire social categories, from peasants to workers, and that increasingly concentrates media, financial and technological power in the hands of a few powerful people. In this fight, no hierarchy can be established between the fights against the so-called "old" forms of attacks on freedoms, such as homophobia, xenophobia or anti-Semitism, and the new forms of alienation that today threaten the very identity of man. Universality is not the steamroller that crushes differences, but the only tool for fighting against a modern totalitarianism that has taken on several faces. More than ever, it is urgent to restore meaning to our republican triptych "Liberty, Equality, Fraternity". The collective for equal rights does nothing else when it calls for the opening of marriage to persons of the same sex. If marriage is a contract between two persons wishing to live together by mutual consent, why should it remain forbidden to same-sex contracting parties? In the name of the Judeo-Christian principles that Poland and some other countries of the Union want to see enshrined in the next European Constitution? In the name of social norms? In the name of "tradition", to use the arguments of Chirac and Jospin? Society as a whole is threatened when it distrusts itself and comes to confuse prejudices and normative values. Thus, why was it "demagogic" to propose the controlled legalization of cannabis during the 2002 presidential campaign? Because the socialist candidate did not want to confront the problem for fear of displeasing part of his electorate? Why was it "inappropriate" to want to debate the right to die with dignity? Because we had to wait for the Humbert affair to talk about it? Why was it "populist" to propose to the National Assembly to authorize immigrants to vote in local and European elections, a promise made in 1981? Because they do not want to assume the gap between political time and the time of society, because they determine their action according to their electoral calendar or the balance of power within their party, politicians have emptied the concept of voluntarism of its meaning. Each time they invoke it, it is to better resign from their responsibilities. To the point that politics is today experienced as an "illusion" by many of our fellow citizens who have taken refuge in abstention or blank votes. We must strive to demonstrate that politics remains one of the best tools in the service of the fight for freedoms, for plurality and the right to democratically choose the society in which we want to live. This is the whole meaning of the problem of political ecology: above all, a questioning of freedom and our freedoms. It cannot therefore be reduced to the question of the relationship between man and nature without taking the risk of falling into the defense of the "natural order", a very close cousin of the moral order. Yes, we are just as much in our place and always in our role when we defend the opening of marriage to people of the same sex as when we pull up genetically modified rapeseed with Greenpeace. And let no one tell us that we are sacrificing to a "fashion phenomenon" or to an "ambient egalitarianism" under the pressure of a "lobby". Frankly, if the supposed homosexual lobby was so powerful, would we have waited so long before voting for the civil solidarity pact, which remains a second-rate legal category? I have not seen any major mobilizations of the usual actors of professional indignation after a young man was nearly burned alive because he was homosexual. I have not heard many voices raised against the executions of homosexuals in Egypt or Cuba... Homophobia is alive and well in a good part of the planet, often encouraged by States, religions or laws. It must be repeated: homosexuals are not asking for privileges, but for rights. Formalizing this demand politically is part of our responsibilities and our desire to defend a more just and more open society. And let all the hypocrites go to hell. To paraphrase Pialat, the eternal rebel, I say to them: "If you don't love me, know that I don't love you either."

## ###ARTICLE\_START### ID:172

THE only head of government and of the majority is him: this is the message that Jean-Pierre Raffarin wanted to reiterate on Wednesday, May 26 on France Inter. A few days after a stormy government seminar (Le Monde, May 21), the Prime Minister recognized the "diversity" of his team and posed as the guarantor of its "unity". Returning to the budgetary tensions between the Minister of the Interior, Dominique de Villepin, and the Minister of the Economy, Nicolas Sarkozy, Mr. Raffarin declared that there were, within his government, "people of talent, (...) characters". "But what I ask of them is to put the service of the French before their personal ambitions. I will be intractable on this point", he explained. In this regard, he recalled that he would be the sole arbiter, in July, of disagreements on the budget. "Until the end of June, the ministers discuss among themselves. Then, approximately 30% of the files are sent back" to Matignon. This call for cohesion and government unity also applies to the UMP. Referring to the succession of Alain Juppé, planned for the autumn, he warned his ministers against rival candidacies. "I will not accept that several ministers run for the head of the party against each other. The government is one political line and one only," the Prime Minister hammered home. "I will not accept that, on this occasion, the government is torn apart," he warned. In recent days, Hervé Gaymard, Minister of Agriculture, François Fillon, Minister of Education, and Mr Sarkozy have expressed their interest in the presidency of the Chirac party. If necessary, Mr Raffarin does not rule out entering the race alone. "If I am a candidate, it is to preserve unity," he added. However, he was keen to point out, "I am not concerned about my personal image but about the action to be taken for the French people." Asked about the economic outlook, the Prime Minister stated: "growth is back." While the 2004 budget predicted growth of 1.7%, Mr. Raffarin now predicts "more than 2%." "The recovery is here, employment is picking up," he added, promising that "the French will see these results in the second half of 2004." Mr. Raffarin pledged that this outlook would benefit the French people and not state spending. Rejecting a tightening of the budget, Mr. Raffarin explained that it was not "a policy of austerity but of good management (...). We need to make savings in the state apparatus." Reviving for the occasion the old formula of "hunting for waste", he listed several sources of savings in the administration, which he estimated at around 100 million euros: telephony on the Internet network for communications between administrations, systematic use of free software, central purchasing for government orders. "WE CORRECT THEM" Less than three weeks before the European elections, Mr. Raffarin hoped that "France could be on the European podium - in the top three - in five areas": family security, the level of growth, the qualification of young people, the reception of European creators and the quality of life of retirees. The Prime Minister also returned to the social change demanded by the President of the Republic, in the aftermath of the defeat in the regional elections. "When we make mistakes, he admitted, we correct them."

## ###ARTICLE\_START### ID:173

On Wednesday, May 26, on France-Inter, the Prime Minister posed as the guarantor of the government's "unity." "I will be inflexible on this point," he said. The only head of government and of the majority is him: this is the message that Jean-Pierre Raffarin wanted to reiterate on Wednesday, May 26, on France Inter. A few days after a stormy government seminar (Le Monde, May 21), the Prime Minister recognized the "diversity" of his team and posed as the guarantor of its "unity." Returning to the budgetary tensions between the Minister of the Interior, Dominique de Villepin, and the Minister of the Economy, Nicolas Sarkozy, Mr. Raffarin declared that there were, within his government, "talented people, (...) characters." "But what I ask of them is to put the service of the French before their personal ambitions. I will be inflexible on this point," he explained. In this regard, he recalled that he would be the sole arbiter, in July, of disagreements on the budget. "Until the end of June, the ministers discuss among themselves. Then, about 30% of the files go back" to Matignon. This call for cohesion and government unity also applies to the UMP. Referring to the succession of Alain Juppé, planned for the autumn, he warned his ministers against rival candidacies. "I will not accept that several ministers run for the head of the party against each other. The government is one political line and one only," hammered the Prime Minister. "I will not accept that, on this occasion, the government tears itself apart," he warned. In recent days, Hervé Gaymard, Minister of Agriculture, François Fillon, Minister of Education, and Mr Sarkozy have expressed their interest in the presidency of the Chirac party. If necessary, Mr. Raffarin does not rule out running alone. "If I am a candidate, it is to preserve unity," he added. However, he was keen to point out, "I am not concerned about my personal image but about the action to be taken for the French people." Asked about the economic outlook, the Prime Minister stated: "growth is back." While the 2004 budget predicted growth of 1.7%, Mr. Raffarin now predicts "more than 2%." "The recovery is here, employment is picking up," he added, promising that "the French will see these results in the second half of 2004." Mr. Raffarin pledged that this outlook would benefit the French people and not state spending. Rejecting a tightening of the budget, Mr. Raffarin explained that it was not "a policy of austerity but of good management (...). We need to make savings in the state apparatus." Reviving for the occasion the old formula of "hunting for waste", he listed several sources of savings in the administration, which he estimated at around 100 million euros: telephony on the Internet network for communications between administrations, systematic use of free software, central purchasing for government orders. "WE CORRECT THEM" Less than three weeks before the European elections, Mr. Raffarin hoped that "France could be on the European podium - in the top three - in five areas": family security, the level of growth, the qualification of young people, the reception of European creators and the quality of life of retirees. The Prime Minister also returned to the social change demanded by the President of the Republic, in the aftermath of the defeat in the regional elections. "When we make mistakes, he admitted, we correct them." Pascal Ceaux and Christophe Jakubyszyn Mr. Chirac and the "good idea" from Haiti Jacques Chirac intervened in his own way in the debate on the election to the presidency of the UMP. Recounting, during the council of ministers on Wednesday, May 19, his telephone conversation with the new Haitian prime minister, Gérard Latortue, Mr. Chirac confided that the latter had imposed a "contract" on his government, which provided that no minister could run for another term. "I thought it was a very good idea," declared Mr. Chirac, according to a participant. Three days earlier, Jean-Pierre Raffarin had suggested, in Le Journal du dimanche, that he had not given up on running for the presidency of the UMP. Nicolas Sarkozy, for his part, had declared, on Monday, May 17, in Le Figaro, that "no candidacy was more legitimate than another."

## ###ARTICLE\_START### ID:174

Although its zero acquisition cost is often wrongly emphasized, there are not only economic reasons to adopt free software. After years of writing at length about free software, I must make a mea culpa here. Too often, I cite economic reasons as the primary reason to adopt free software. However, trying to convince by alleging the zero acquisition cost is an easy solution to which it is easy to succumb, while the real reasons are much deeper. Adopting free software means challenging the very foundations of intellectual property as we currently understand it. As Richard Stallman, the man behind the concept of free software, explains ad nauseam, the expression "free software" refers to freedom and not to its being free. To understand this concept, it is appropriate to think of "freedom of expression" and not "free entry" ("Free as free speech, not as free beer"). When we talk about free software, we really have to refer to the freedom that users have "to run, copy, distribute, study, modify and improve the software". Stallman refers to these four types of freedom to explain what free software is: - The freedom to run the program, for all uses (freedom 0); - The freedom to study how the program works, and to adapt it to your needs (freedom 1). For this, access to the source code is a sine qua non condition; - The freedom to redistribute copies, therefore to help your neighbor, (freedom 2). - The freedom to improve the program and publish your improvements, to benefit the entire community (freedom 3). Once again, access to the source code is a sine qua non condition. Better adapted tools If it were only for these reasons, free software would have everything to seduce. But let's be realistic, who really has the time and, above all, the knowledge to tinker with software code? After all, few of us, especially those aged 30 and over, have the skills to personalize a software package. But for many of these young people who are pushing us around, these trendy young people who are now 10, 15 and 20 years old, examining the code to extract the best from it and who knows, improving the product and then giving it back to the community, what could be more natural than that. But in short, free software is much more than all that. Unlike proprietary software that imposes its way of doing things on us, free software allows us to create tools that are better adapted to a market. Should we once again (yes!) talk about the Mille project, this collaborative project bringing together several partners, whose mission is to create, from free software, a suite of tools that are fully compliant with the demands of stakeholders in the world of education. Ultimately, and this moment is approaching, CRIM and its partners will offer teachers, students, and administrators of school boards, CEGEPs and universities an incomparable range of software tools that they will be free to distribute, install, and who knows, modify and customize in turn. Inspiring vision Could a proprietary software publisher do as much? To ask the question is to answer it. Let's admit that this vision behind the Mille project, and all other projects of its kind, is inspiring as can be. And it goes much further than the simplistic remarks of the current Minister of Education, Pierre Reid, who declared on May 5 in parliamentary committee: "I had already mentioned the work on free software, for example, last year, it has evolved a lot this year, it has advanced. This too is very promising to allow us to have in schools, in all schools, software that is essentially the same as that which we will have in the workplace, but which will not cost what the licenses of software companies cost which, when multiplied by a million children, are unaffordable for a country." Considering the state of public finances, Minister Reid's arguments are important. Indeed, the appropriation of free software by the world of education avoids the managers of our educational institutions from writing a colossal check for the acquisition of proprietary software, a check which will most of the time go to the United States or Europe. But to make it the main reason for implementing free software in our educational institutions... A little more vision, Mr. Minister? Not a matter of communism At this point, however, it is appropriate to clarify things. Those who have thought and reflected on the question of free software are not and will never be communists, as some like to say. Free software is not and will never be incompatible with commerce. On the contrary, a commercial company can very well sell free software. The GPL license, under which a lot of free software is distributed, does not prevent a company from trading in free software. In fact, from the beginning, the thinkers of free software licensed the GPL so that those who distribute free software can charge them whatever price they want or can afford. Again, the philosophy of free software offers great flexibility. For those who designed it, the English word "free" in "freesoftware" has two meanings: it can refer to price as well as freedom. Some free software is distributed for free, but sometimes it is also for a fee. The same program is often available in both versions from different sources. The program is free despite its price, because users have complete freedom in its use. Examples Let's take the case of Linux distribution publishers. A publisher such as Linux-Mandrake allows all Internet users who want to download its popular Linux distribution. However, it is also possible to purchase this same product in a store, with the added bonus of instruction manuals and after-sales service. Other companies will instead prefer to offer value-added services to free software, such as the Quebec company 8D Technologies, which designs smart parking meters based on free software. Proprietary software is often sold at a high price, but it is possible that you will be offered to download a free copy. This does not make it free software. Whether it is free or paid, the program is not free because users do not have any of the four freedoms. So, since price does not matter when we talk about free software, a low price does not make a software more "free" than another offered for free. Thus, if you redistribute copies of free software, you may as well set a high price and still cover your costs. For free software advocates, redistributing free software is an honorable and completely legal activity; if you do it, you can very well make money from it.

## ###ARTICLE\_START### ID:175

The information and telecommunications technology (ICT) sector, fueled by speculation and flashy statements, had accustomed us to contagious optimism. After a series of setbacks that culminated in 2000-2001, these companies, which prided themselves on constituting a "new economy," had to return to pragmatism. For them, "the ice remains thin" because of the persistent depression in the telecommunications world, but certain signs may herald less gloomy days. Nortel, like other large Canadian telecommunications companies such as BCE and Microcell Technologies, is returning - albeit modestly - to profitability. Will Microcell's Fido recover thanks to the new restructuring and recapitalization plan? For their part, BCE and Telus have also noted that the stock markets now seem less fearful of any investment in this over-indebted sector. Although the recovery is slower and more hesitant than expected, the fact remains that the business horizon is still expanding since we are witnessing the convergence of mobile (wireless) solutions and Web services. This inter-application integration is growing rapidly in the United States, according to Gartner Group, the well-known reference organization. One thing is certain: the crisis will have served to distinguish, among companies more closely associated with information technology (IT), the weak from the strong and it will have caused a severe selection among the technologies offered. Now, these are evaluated less according to their estimated potential than according to their medium-term profitability. Conversely, companies operating in the field of precision instrumentation are showing a better health record. This is the case, in particular, of the company Andromed, which may have tripled its workforce before the end of the year thanks to the development of its electronic stethoscopes. Candidates still in their bubble While times remain uncertain for telecoms and look a little better for IT, the IT services sector is clearly doing better and better. In fact, a study conducted among 500 IT firms by TechnoCompétences, the sectoral committee for information and communications technology workforce, raises the specter of a shortage of specialized labour that could affect a quarter of them. Among the most sought-after professions today are programmers, computer engineers and business analysts. This study also reveals a significant gap between candidates' salary expectations and companies' current financial resources, as these are well below what they were during the crazy years of ICT. Ms. Hélène Lafleur, head of human resources at Cedrom-SNI, deplores the shopping around practiced by programmers. It would seem that a certain proportion of ICT workers are still living "in their bubble". In fact, companies still have the best role when it comes to hiring. They are in no hurry and are very demanding in terms of both know-how and experience. Gone are the days when mastering an HTML or Photoshop editor opened all doors..., which closed six months, a year or two later. We now want programmers who are able to master several languages and who have several years of experience. Even if it means being patient, if necessary. In this context, can we talk about a war of attrition? Yes. But a war that benefits companies which, according to the TechnoCompétences study, prefer to use passive recruitment methods: posting positions on their websites and word of mouth. As for programmers, they are much less rare than they were a few years ago. On the other hand, it is more difficult to find a technician capable of taking initiatives and building relationships with customers, or even managing a project. The problem is the same for many SMEs in the industry. For example, Mr. Christian Roy, human resources manager at De Marque Inc., a software publisher in Quebec City, prefers to hire a candidate only after an internship, in order to ensure that the candidate can integrate into the company culture and that he or she actually has the required skills. Many companies in the ICT sector are adopting the same strategy. In remote regions, however, the recruitment problem is more acute. For example, at Premier Tech in Rivière-du-Loup, they have to "cast their net wide" to fill vacant positions in the research and development (R&D) and "business intelligence" sectors, i.e. enterprise resource planning (ERP) systems. Movements on all fronts Despite sustained growth since 2000, e-commerce generated less than 1% of total revenues for Canadian businesses in 2002, according to Statistics Canada. Even more worrying: seven out of ten businesses have stopped selling their products online. On the other hand, "business intelligence" and ERP (Enterprise Resource Planning) integrated management systems, dominated by SAP, Oracle and Peoplesoft, are all the rage in companies' internal networks, so much so that we can expect a considerable increase in server sales. Other areas are also doing well, including electronic document management (EDM) and mobile (wireless) business solutions. In addition, given Microsoft's onerous license renewal policy, the sector is expecting a significant breakthrough in free and open source software and systems. A lot of work ahead for programmers and engineers. While it is true that many companies have had to make serious rationalizations in recent years, the fact remains that information and telecommunications technologies are spreading to all sectors of economic activity. One could even say that they are "cannibalizing" the available workforce that was traditionally associated with "pure and hard" ICT. In fact, TechnoCompétences even believes that the number of university graduates with a second and third cycle in computer science will have to be doubled if we want to be able to meet all needs. After many others, this is the ultimate piece of good news, both for workers and for companies.

## ###ARTICLE\_START### ID:176

Year after year, the Canadian Alliance Against Software Theft (CASTS) launches a campaign to discourage Internet users from pirating, even if it means trying to scare them. Stopping at nothing, the columnist suggests that you comply with the CASTS by using solutions that are easy on the wallet. I am not proud of you. Did you know, my rascals, that by pirating software, you have cost the Canadian economy $419 million in business software sales and that 32,000 jobs in the information technology and retail sectors have been lost because of you. I am not the one saying this, but the CASTS. Really, I am greatly disappointed in you all. In its latest press release, the CASTS calls you directly. Have you downloaded software from the Internet or a P2P exchange network in the last few months? Have you purchased a software package at such a ridiculous price that strangely, no user manual was included? Have you succumbed to the advances of a friend or office colleague who offered to copy a software? Shame on you, servant of Satan, son of a camel and all that sort of thing. Just like Carferrix, right-hand man of Ocatarinabellathitchix (you know, the one who explained the reasons for the wars between clan chiefs, namely: "The old people say that the great uncle of Ocatarinetabellatchitchix married a girl from the Talassoterapix clan with whom a cousin by marriage of a grandfather of Figatellix was in love. But others assure that it is because of a donkey that the great-grandfather of Figatellix had refused to pay to the brother-in-law of a close friend of the Ocatarinetabellatchitchix under the pretext that it was lame (the donkey, not the brother-in-law of Ocatarinetabellatchitchix)...)", in short, just like him, I have only one thing to say to you: "It is very serious!" Consequences According to the ACCVL, by copying software in this way, you expose yourself to: - viruses that attach themselves to certain programs, reproduce and seriously damage your data; - hackers who prowl around computer networks, try to access your software, your machine or your network, in order to alter or even destroy data; - your computer being the victim of "spy" programs that collect personal information without your authorization and leave holes that jeopardize the security of your computer. Nothing less. What kind of risk do we take by pirating software? We learn a lot from the ACCVL. In addition, if you get caught pirating software, in addition to a slap on the wrist, you expose yourself to being sentenced to hefty fines of up to $20,000 per unauthorized copy of software installed on your computers. I can sense the red of shame filling your face. Come on, dunce's cap and you'll copy me 100 times Ocatarinabellatchitchix here. Advice Now that you've become aware of your sad state as a pirate of the Canadian economy (you'll also copy me 200 times "Enron, Worldcom, Nortel and Microsoft"), here are the five practical tips that the ACCVL gives you to become a model citizen again: - take inventory of your software. Including those that your tribe of teenagers installed without your knowledge; - check the status of the licenses. The standard in the computer industry is to accompany each software with a license agreement. You know, the little piece of paper that you never read with lots of pretty words or the file that comes with the software that you downloaded; - so, these software that your teenagers downloaded? Are they legal or not? Classify and keep up to date all your invoices and receipts; - create a database for software management. This database should contain all the information obtained and should be updated regularly to monitor software removals, additions or updates. (Who said that using a computer was easy?); - Obtain the necessary licenses without delay for any unauthorized software program that you find on your computer. Obtaining the licenses obviously means getting ready to shell out. And we add After the arguments intended to scare you, here are the five little tips from the ACCVL. Now, let's complete with the columnist's advice: - Okay, you haven't found the license or the invoice for this magnificent office suite that sits on your hard drive. Same thing for the operating system as well as several other applications. However, no one doubts your honesty, but you must have a license and an invoice; - Do an Internet search to find the best possible prices to buy this software and be in compliance. Take three Prozacs, two Valiums and read a column by Jean Dion or an editorial from Le Monde diplomatique to get over the shock of seeing that this charming and cute office suite sells for more than $700; - okay, you don't want to change your way of doing things. We won't talk to you about Linux. So, get this Home version of Windows XP for the ridiculous price of $300. Or, go for the big game: buy this version of Windows XP Professional for $500 (these prices come from the Camelot website, I'm not making this up). There you go, now that you're in compliance with the law, do you feel better? You can't afford other purchases? Gee, it's true that at $500 a copy for the operating system, one wonders if there isn't an Alliance against the theft of the contents of consumers' wallets; Don't panic though. Before you negotiate a mortgage with your bank manager to buy those few small applications that you sorely lack, can we tell you about a free and equally powerful solution? How about taking a few minutes of your precious time to download a ready-to-burn CD image? Although officially the Mille project team, which I have already told you about, has designed a CD-ROM for educational institutions, nothing prevents you from downloading the Colibris CD image (Free Content for Educational Institutions), a set of open-source software packages designed specifically for the Windows environment. Let's be clear, I said Windows, not Linux. In the Colibris distribution, you will find "software packages that can advantageously replace those you already use without having to spend a penny." In addition to the traditional MS Office compatible office suite, OpenOffice (which by the way, integrates very well with Antidote, thanks to the Druide company), you will find personal accounting applications, graphics, audio and video reading and recording as well as a host of Internet applications such as browser, email and all that. Running on OpenSource for free under Windows? It is entirely possible, and even desirable. Even before Linux, there was free software. Convincing people to adopt free software is done gradually, "with caution" (according to César Labeldecadix). Send a message And the $419 million lost to the Canadian economy? Yeah, it is true that by being legal, but running on free software, you will not contribute to bailing out the coffers of the "poor" companies that are part of the ACCVL. You will, however, have the pleasure of saying that you are doing it legally while sending a clear message to the software industry. Buying is voting? So vote against the abusive prices practiced by most of the major software publishers. Vote freely. This text was written with OpenOffice for Mac, and we are not doing any worse for it.

## ###ARTICLE\_START### ID:177

The company Révolution Linux, the originator of the free software Edulinux, inaugurated its new premises yesterday at 145, rue Sauvé in Sherbrooke. The company, which was spun off from the Faculty of Engineering at the Université de Sherbrooke, is working on installing Edulinux on networks and providing technical support during the distribution of the software. Although the company began operations in July 2003, it really took off at the beginning of this year. The inauguration of its premises makes it official. The company currently employs 10 people, 7 of whom are full-time. Révolution Linux, whose three shareholders are Jean-Michel Dault, Francis Giraldeau and Benoît Des Ligneris, currently has contracts in the school, associative and community sectors. Its Edulinux software allows users to operate with free software whose code can be modified without restrictions, all in French. Révolution Linux installs Linux technology on used computers, "which extends the life of the computer equipment by nearly 36 months," explains Benoît Des Ligneris, president of the company. This is an alternative that appeals to school boards that do not have to renew all their equipment. The Magdeleine school in La Prairie is the first to have been able to benefit from it. The Carrefour Jeunesse-Emploi in Lasalle has also had Edulinux installed on nearly 50 workstations. "For now, the contracts are not coming from Estrie, but from elsewhere in Quebec. No one is a prophet in his own country," says Benoît Des Ligneris philosophically. In the region, however, the Université de Sherbrooke is a long-standing and constant partner. Indeed, Richard J. Marceau, dean of the Faculty of Engineering, is "the real spiritual father of the project," according to Mr. Des Ligneris. Mr. Marceau's computer has been running Linux since 2001, since the very first versions of the software. A few workstations in the university's laboratories also run Linux, but students always have a choice of system. "At the university, we try to seduce and motivate, not impose our choices," explains Richard J. Marceau. As for the future of Révolution Linux, the dean says he hopes it will be prosperous, for the company as much as for the university. "Révolution Linux is people who work hard and well, people who have passion."

## ###ARTICLE\_START### ID:178

Placard#7 Festival. Here we go again for 95 days of non-stop headphone concerts. The Placard festival, the 7th of its name, begins this Saturday 8th at the Confort moderne in Poitiers. Open to all experiments, the Placard allows everyone to register on the programming grid (via a revamped website) and to propose a performance. http://placard7.ath.cx Servo at Scratch Performance. Sound abstractions and computer graphics hallucinations, "Scratch Projection" welcomes the iconoclast Servovalve and his latest sonographic creation, Public Anemie. May 11 at the Centre Wallonie Bruxelles, 46 r. Quincampoix, 75004, 5 euros at 8 p.m. www.servovalve.org www.lightcone.org OpenSource City Rencontres. Artists, cartographers, architects, programmers, psychographers, European researchers meet for ten days to create together multiple "open source" maps of Strasbourg. The productions of the workshops will be exhibited at the Syndicat potentiel, from May 18 to 29. www.e-ngo.org http://utangente. free. fr Opensource city, from May 7 to 16, daily from 2 p.m. to 7 p.m. at the Syndicat potentiel, 13, rue des Couples, Strasbourg (67). 03 88 37 08 72. Free entry.

## ###ARTICLE\_START### ID:179

Hacktivists, artists who program all kinds of oddities, logo hijackers and anti-ads, graffiti artists, graphic designers and urban artists, theorists of a tactical revolution and electro-extreme musicians have they found in Berlin the epicentre of their "global resistance" and in Rebel: art their rhetorical organ? A site, a festival (in April in Berlin) and a paper-web-CD-Rom publication open to contributions from artists... Rebel: art, the first "Art Wiki-OpenSource-Magazine" (1), applies the model born from networks outside the Net, via free software. Platform. First, starting from the richness of the content, from these hours of reading and surfing in perspective, 160 pages that establish an unprecedented panorama of what could be called "altercreation", a catch-all as varied as the alter-globalisation movement itself, which Alain Bieber of Rebel: art describes as "the international avant-garde of modern political art". Around the question "How to provoke today?", the platform opens pages and disk space to, among others, the Italians of 0100101110101101.org, the Spanish emigrant in Mexico Santiago Serra, the Frenchman Lokiss or the Dutch of Influenza. The first evoke their manifesto project nikeground.com, where disconcerted Viennese believed that Nike was going to transform Karlsplatz into "NikePlatz" (with a trial of the American giant as a result, Libération of October 24, 2003). The second, an artist who has made provocation his trademark, tells how 133 immigrants in Italy had their hair dyed blond for $60 and an exhibition. Lokiss, still angry with the brush, contributes with a double graphic "think wet, think war", while Influenza sells his "art of urban warfare", a video game-style propagation project of hordes of poached soldiers on the walls of cities. Videos, text, music. The CD-Rom is a mind-blowing mine of videos, programs and musical fragments, ranging from the minimalist electro of Si-Cut-Db to the noisy throat singing of Zbigniew Karkowsky or the improbable Marxremixt of the Germans of Textxtnd. In the software department, the Reamweaver allows you to make fake mirror sites in two seconds and the CueJack offers an "alternative" rereading of the CueCat barcode reader. Two programs piloted by the Yesmen (agitators specializing in fake official intervention in WTO-type bodies) and American RTMark activists. Texts, essays on "laptop music", interviews and samples of Burroughs, Holbein and Bubba Sparxxx, a dozen webzines to download complete the collection. In the background, a "visual grammar of resistance" is outlined, carried by the German critic Florian Weldvogel: "The situationists and the punks had envisaged public space as the arena of sociopolitical action where subjectivity could be demanded. At the turn of the century, said space became a gigantic shopping mall." To "decolonize" our visual culture, to fight against the "spam of infotainment", it is "critical consciousness" that must be created. Rebel: art contributes valiantly to this. (1) The wiki is an open publication tool, like free software, whose source code can be modified.

## ###ARTICLE\_START### ID:180

THIS INTERVIEW has been proofread and amended by Paul Hermelin. Capgemini did not achieve its objectives in 2003, with an operating margin of 2.7% instead of the 5% forecast. Are you more optimistic for 2004? The estimated turnover for the first quarter of 2004 shows that we are returning to a normal seasonality for our businesses. In 2003, we were a bit proactive. The price drop initiated in the sector in the United States had contaminated Europe. This is very difficult to manage for companies like ours, which have two thirds of their costs in salaries. This year, I have opted for a more cautious position. In the coming years, it will be up to us, as the group begins to grow again, to catch up with our competitors, that is to say to achieve 7% to 8% operating profitability. Is the end of the crisis in sight for the sector? Generally speaking, there was an indigestion of IT in companies between the year 2000, the euro and the Internet bubble. After a digestion phase, we are seeing a revival in demand for strategy and organisation consulting. Companies are reopening projects that will be followed by investments in IT. In the United States, we are even seeing a rise in prices in consulting. But the pressure from large Indian service companies remains strong. In 2003, growth was driven by federal demand, particularly in defence. As we were not on these public markets, we experienced a drop in our activity. 2004 should be a better year, because IT demand is moving from the public to the private sector. In Europe, the situation is very mixed. England is doing much better, and on the Continent, price erosion seems to have been halted, even if volumes are not yet starting to rise again, except perhaps in Spain. Which sectors are driving the recovery? There is a strong trend, almost everywhere, towards the modernisation of administrations, either by outsourcing - we have won the contract for the British tax services and the employment agency in the Netherlands - or by what is called "e-government", via the Internet. We are going to introduce Linux free software in certain French ministries. In healthcare, we are the leading player in the modernisation of the sector in the United States. This is an expertise that we will be able to share with our clients in Europe, and particularly in France. Furthermore, we are seeing the revival of certain sectors such as telecommunications and media, but also financial services, which have historically been our leading clients. Capgemini has cut 10,000 jobs in recent years. If the recovery is confirmed, will you start hiring again? Since 1 January 2004, the reorganisation of the group by business line has been completed. Resource utilisation rates have returned to satisfactory levels. We still need to improve our margins, but we need to get out of the vicious circle of repeated social plans. They end up affecting growth, by demobilizing people and eroding commercial activity. There have always been hirings in some of our businesses. Our subsidiary Sogeti/Transiciel is in a situation of net hirings. People also join us during outsourcing contracts: this is the case for 2,200 employees in Great Britain after the contract with the British tax authorities. Ernst & Young has disappeared from your name. Has the merger page turned? We had a contractual obligation to abandon all references to Ernst & Young four years after the merger. Our American colleagues had also requested this very early on, so that there would be no confusion between auditing and consulting, and because of American regulations. We therefore relaunched the Capgemini brand, particularly in the United States, where we were not well-known enough. Even though it was complex operationally, the merger brought us a lot from a strategic point of view, on the global market. Now that the markets are waking up, we will see its full potential. We have become a partner of leading American groups: major banks, Disney, Reebok, General Motors, etc. Is the relocation of your businesses inevitable? At Capgemini, we have created a concept, registered as a trademark: neither "onshore" nor "offshore", but "rightshore", localization in the right place. Relocation in IT has nothing to do with that of textiles. IT is growing globally, its presence will increase everywhere. In this context, there is room for intelligent coexistence between a qualified Western workforce and a skilled Eastern workforce. We have very productive units in France, in Clermont-Ferrand or Toulouse, and in Poland, which is also very competitive. The great strength of India, where we are also located, is the massive training of highly qualified and highly motivated people. On the periphery of the European Union, France could help certain French-speaking and Francophile countries to train qualified personnel. In the ongoing consolidation of the sector, is Capgemini prey or predator? Our largest shareholder, Serge Kampf, the founder of the group, holds 5% of the capital. Our best defense is our commercial dynamism. We believe we have critical mass in two of our four businesses: consulting and IT engineering. In outsourcing, a more capital-intensive sector, we have two options: growing through acquisitions or obtaining major contracts. We have opted so far for the second path, with, I believe, some success. Mr. Kampf gave you notable support at the general meeting of shareholders on Thursday, April 29. Did you need it so much? I have worked alongside Mr. Kampf for eleven years. I took over the operational management of the group two years ago. The year 2003 was tough and it is not easy to be a dolphin in times of crisis. If Mr. Kampf had remained silent, some might have wondered. By reaffirming his support, he honors me and shows the solidity of the group's governance in the recovery project.

## ###ARTICLE\_START### ID:181

The Internet has become an essential tool for finding a job. To ensure that those most disadvantaged in terms of IT are not left by the wayside, public access areas offer help to job seekers. In the community of people looking for work, inequality in terms of access to the Internet persists. The phenomenon is so obvious that the ANPE and the Caisse des Dépôts et Consignations have just announced a joint effort aimed at job seekers. The Caisse des Dépôts et Consignations has noted that, in the cyberbases that it is currently equipping across the country, 27% of users came to find a job. "Recruitment via the Internet has become a fully-fledged avenue, including thanks to the ANPE website. Not having access to the Internet is an additional handicap," notes Francis Mayer, the CEO of the Caisse des Dépôts et Consignations. The agreement signed between the two public bodies aims to develop links between the 820 local ANPE agencies and the 100 active cyberbases (400 of these digital spaces are planned for 2005). This involves, among other things, training cyberbase facilitators to welcome job seekers and developing, with the ANPE, specific content on the future site www.cyberbase.org. In the field, we did not wait for this agreement to help job seekers understand the computer tool and use it to their advantage in their search. In the fall of 2000, Jean-Luc Raymond launched one of the first workshops of its kind at the Plessis-Trévise media library in collaboration with the city's Employment Service. "In a few months, 70% of the participants found a job or training course, while some had been on RMI for several years. They did not necessarily find it on the Internet, but the workshop allowed them to get back in touch. Not being in an ANPE also allowed for a relationship of trust,” he explains today. The facilitators of digital public spaces have a very specific role. Good technicians, they must above all be teachers capable of establishing a relationship with audiences in difficulty. “The people who come to the workshops at the media library today have major language, reading or simply sight problems. The most important thing is human mediation,” continues Jean-Luc Raymond, who has launched a discussion list where more than 1,500 digital space facilitators share their experiences. He notes another worrying trend for those who do not have any background: “We now see advertisements that require IT skills in professions that did not previously require them. Some of our audience comes to us under duress.” » In France, there are approximately 4,000 public Internet access spaces under several labels (cyberbase, digital public space, multimedia public space), but this figure must certainly be multiplied by three to get closer to reality. These spaces have operated with the help of youth employment. The end of these contracts weakens them at a time when they are seeing an influx of job seekers among their users. Some municipalities are throwing in the towel while others are finding solutions to hire their facilitator and perpetuate the space. At the same time, new initiatives are emerging. Medhi Serdidi, a pioneer in the field for years at the Maison des chômeurs in Nanterre, is working on the upcoming opening of a public space 100% equipped with free software in the 13th arrondissement of Paris. "It is a myth to say that this software is more difficult to learn. On the other hand, who can put 200 euros into "Office" when they are in a precarious situation? ", asks this facilitator who wrote his DEA thesis on the use of new technologies in Nanterre. He identifies certain difficulties of the users he has met: "There is a social difficulty that we must take into account as trainers. Other cognitive difficulties are significant. Copying and pasting is not a logical approach for many." The under-25s are a separate group. In Paris, for example, Cyber-Emploi centers work in conjunction with the Local Integration Mission to welcome these young people. Marc-Antoine Genissel is responsible for the Cyber-Emploi website. "Our goal is to guide applicants to the relevant sites as quickly as possible and to identify companies that are recruiting while avoiding the traps set on the Internet," he explains. In the Cyber-Emploi offices, advisors meet with young people for personalized meetings. "All the offers are online, sometimes even before they are published on paper," he adds. "It's a disadvantage not to go online. Doing research on the targeted company online is also a plus. We teach them the methodology." In the Var, 870 RMI recipients were able to benefit from information training last year. "Several associations in the department are responsible for providing training from a three-hour awareness session to a 29-hour module to make them independent and a 30-hour advanced training module," explains Viviane Benessiano, head of the Integration department at the Var general council. As is often the case in the social sector, it is difficult to evaluate the results, but all these spaces have the merit of offering an initial contact. www.cyber-emploi-centre.com

## ###ARTICLE\_START### ID:182

For Marc Laporte, one of the designers of the TikiWiki application, the Wiki is the ideal tool to stimulate the creativity of a group and share knowledge. Sylvain Carle defines the Wiki rather as the warehouse of an immense collective brain. In any case, the only metaphor to describe the Wiki that comes to mind for these two Internet users is that of the whiteboard. To say Marc Laporte, quoting Pierre Levy, "nobody knows everything, but everybody knows something. This sentence from Lévy perfectly describes the possibilities offered by the Wiki". But what is a Wiki? While browsing a Web page, you may have read this strange word. Unless you are a regular visitor to the online encyclopedia Wikipedia and, in this case, without knowing it, you are consulting a Wiki. Very simply, in its purest form, a Wiki is a collaborative work tool that allows any Internet user armed with an Internet browser to create or modify a Web page at will, without having to learn any programming language. Sylvain Carle describes the Wiki as the easiest tool to use on the Internet after email. For the French-speaking community WebSemantics.org, the use of a Wiki is broken down into four major issues: the Wiki is an incentive, "its virtue of encouraging participation is the first clause of its specifications". It is also deliberative, by proposing "a form of deepening of the virtual consensus [...] which is part of its attractiveness and therefore its incentive nature". The Wiki must be instructive, in the sense that the direct or deferred collaboration of its contributors is synthesized into a set of resources centered on the object that motivates them. And finally, it is expressive, that is to say that it is "the expression of a collective, of a group of individuals presenting at least one common expectation". Concretely, a Wiki allows anyone reading one of its pages to modify it on the fly. All versions remain accessible, however, while the history of modifications can be consulted at any time. Thus, a first author writes the outline of a post, a second can complete it and then a visitor or several visitors correct any errors that they may have noticed while browsing the site. To fully understand the mechanics of a Wiki, imagine a version of the Devoir website where it would be possible for all Internet users to modify or correct all of the pages constituting it, and this, in the most anonymous way possible. The Wikipedia encyclopedia is also designed on this mode of publication. Everyone can add their two cents. Anarchic and chaotic as a model of publication? Without a doubt, since after all, if we push the metaphor to the maximum, any vandal could destroy a web page or modify it by introducing false information. However, we see in reality that this kind of thing happens very rarely. Explains Marc Laporte, "since anyone can destroy a page, where is the challenge that is the trademark of hackers? The beauty of the Wiki is this form of consensus that emerges from it. What remains on a web page is what is the most relevant as information. It is also what will be confirmed by all visitors." In addition, if unfortunately, an idiot or a spammer robot comes by and deletes one or more pages, the next visitor can simply, with a single click of the mouse, bring back said pages by consulting the modification history. This is also one of the reasons why Wikis work. A Wiki is an organic tool that runs on freedom and chaos. However, although the best-known Wiki application is the Wikipedia encyclopedia, research centers, think tanks, and project managers are beginning to implement Wikis in companies. Since the constraints related to the use of a Wiki are almost non-existent, everyone, without restriction, can contribute at their own pace. Sylvain Carle has also noted that because of this universal participation, implementing a Wiki in a company makes its users more responsible. "However, approaching a Wiki requires reviewing your thought processes. Installing a Wiki in a company by wanting to embed its members in a rigid structure is inevitably doomed to failure." A Wiki is a brainstorming session on steroids! "We must not stifle the creativity of the participants in a Wiki." By respecting these conditions, a process of appropriation of the Wiki by the group normally follows, which results in positive results. Karl Dubost, from the W3C and founder of the WebSemantic.org site, also suggests other ideas for using Wikis. For example, a Wiki could be used for developing projects in small teams, learning structured writing or writing a novel ("thanks to the automatic management of linked words, we do the script and the story at the same time, the two auto-complete themselves"). For the French-speaking CraoWiki user community, the Wiki is a further step upwards inherited from the traditional "OpenSource" and "BBS" models. In the normal model, you have to go through a long registration process or be able to program to contribute anything; this does not encourage contribution and creates a small community of "members" or "programmers" who do all the work. Conversely, in a Wiki, if you notice a mistake you can correct it instantly, and adding something new is as easy as knowing how to type it on the keyboard. \*\*\* Correct with ease Created by Ward Cunningham, the Wiki is a website on which any visitor can modify or create pages using their Internet browser. Its name comes from the Hawaiian word WikiWiki which means "quickly". Indeed, the publication of a contribution on a Wiki is instantaneous, there is no waiting time due to a revision of the content by any administrator. The super online encyclopedia, Wikipedia, explains the publication mechanism on a Wiki as follows: "The principle is simple: it is a cooperative model of document writing. Concretely, any visitor has the possibility of modifying the page that he is reading. The modifications are then saved, and all historical versions remain accessible [as in a version control software]. Thus, a first author writes an article, a second completes it, then a visitor corrects any errors that he may have noticed while browsing the site." To illustrate how easy it is to edit a text in a Wiki, when I wanted to quote Wikipedia in this article, I noticed a small typo in a word ("navigant" instead of "naviguant"). Without even having to register, I corrected this small mistake, and I was able to republish the definition in a few seconds. \*\*\* An impressive encyclopedia Wikipedia is one of the largest encyclopedias published on the Internet. This free and multilingual encyclopedia - Wikipedia is published in more than 50 different languages, including French - announced on February 23 that the entire project included more than 500,000 entries. Wikipedia was born following the publication of an essay written by Richard Stallman (The free universal encyclopedia and learning resource) which questioned the relevance (the urgency?) of creating a free universal encyclopedia. Although there is no official "project leader" at Wikipedia, its two founders, Jimmy Wales and Larry Sanger, managed to launch the project thanks to the tireless work of Sanger, who worked for a year to write the basis of the encyclopedia, while Wales, through his Internet portal Bomis, set up a financial structure, the Wikimedia Foundation, intended to ensure the sustainability of Wikipedia. Today, the project works by consensus, using the rules and recommendations created by the various contributors. All content is published under the GNU Free Documentation License GFDL, "allowing anyone to distribute and modify the free text, while guaranteeing that no one can restrict access to it, even to modified versions."

## ###ARTICLE\_START### ID:183

Dissatisfied, worried or simply looking for information, consumers can now call a single telephone number: the call centre set up by the Directorate General for Competition, Consumer Affairs and Fraud Control (DGCCRF). "It's about maintaining consumer confidence," explains Christian Jacob, the Minister Delegate for Consumer Affairs, who came to inaugurate this new service in Montpellier. At the end of the line, twelve agents. Controllers and inspectors, experienced in field work and in welcoming complainants, they are assisted by computers to immediately find answers to almost all questions. "The system was practically custom-made using open-source software. It allows the agent to have files and language elements so that the answer is always the same regardless of who is involved," explains Dominique Guillou, head of the IT department at the DGCCRF. Agents therefore have all the up-to-date regulations available, as well as all the useful addresses and contact details, just a click away. The computer also allows for rapid reporting of consumer complaints. When several consumers raise the same problem, even if they each call from different parts of France, their cases can be brought together and consulted by all agents, while preserving their anonymity. If a subject becomes more serious, it is even entitled to a scrolling banner on the call center screens. "In the event of a major health crisis, particularly related to the withdrawal of a product, a message will be recorded. Consumers will immediately have precise information," adds Ghislaine Begin, director of the center. However, consumer associations are skeptical. This system could deprive them of some of the calls they have received so far. "It allows people to be informed about the law, but it does not allow for the creation of a balance of power with professionals," notes Joël Dufour, administrator at UFC-Que Choisir.

## ###ARTICLE\_START### ID:184

It is a unique laboratory. A sort of nomadic and self-sufficient island (photos above, n°9), easy to transport in a container. Once unfolded and installed, preferably in isolated places, connected to communications networks and satellites, the Makrolab, which produces its own energy thanks to the sun and wind, can accommodate teams of 4 to 6 artists and scientists. It provides them with all the tools necessary to work side by side during periods of isolation of one hundred and twenty days. Launched at the initiative of the Slovenian artist Marko Peljhan, as part of the Projekt Atol, this laboratory promotes rapprochements between disciplines, addressing biologists, engineers, ecologists, as well as artists. Its fields of research embrace telecommunications (tactical media, cryptography, free and open source software), meteorological systems, the environment and migrations (of humans, capital, birds). Since June 13, 2003, the Makrolab has been installed in the Venice Lagoon on the island of Campalto. The first structure was erected in 1997, during Documenta X in Kassel, before being deployed in Australia, Slovenia and Scotland. The Makrolab should soon migrate to Bangalore in India. The ultimate goal is to establish a permanent and independent art and science research station on the Antarctic continent in 2007.

## ###ARTICLE\_START### ID:185

Computer engineering students who are designing a nanosatellite prototype, others who are running a Sherbrooke Short Film Festival, and still others who are doing Ecology Without Borders; in fact, there are about forty students from the Université de Sherbrooke, divided into thirteen different projects, who are going to defend the local colours at the provincial Forces Avenir competition. The finalists of this competition will be announced in July, but we will have to wait until the gala on October 7, 2004 to find out the big Quebec winners, it was announced yesterday morning at the Université de Sherbrooke, while presenting these Sherbrooke students who, through their dynamism, initiative and contribution to community life, are advancing society. As a bonus, it was revealed yesterday, there is a strong chance that this provincial gala will be held for the first time in Sherbrooke. There are only a few details left to sort out before getting confirmation that the 6th Gala Forces Avenir will be held in Sherbrooke in October. The Sherbrooke candidates grouped into the 13 projects are classified in eight different categories, reported the Vice-Rector of Information Resources, Martin Buteau, on behalf of the Rector, Bruno-Marie Béchard. Thus, in the Business and Economic Life category, the Université de Sherbrooke will be represented by the Linux User Group (GULUS). The GULUS' mission is to promote the use of Linux and free software in general on campus and in the region. This year, the GULUS worked mainly on Edulinux, the first Quebec distribution of Linux, as well as on the creation of the Université de Sherbrooke's Centre du logiciellibre. Also in this same category is the PROSIM project. Two students from the Faculty of Administration have undertaken to modernize the computer tool used in their business management simulation course. They produced a tool that was considered more efficient, which was implemented at the faculty in February. In the Environment category, the selected project was that of Ecology Without Borders. Founded in 1996, this group allows biology students to carry out humanitarian projects of an environmental nature in developing countries each year. In the Mutual Aid, Peace and Justice category, the candidate is the Groupe de collaboration en ingénierie (GCIUS), whose objective is to allow students to use their technical engineering knowledge to carry out a humanitarian aid project in a developing country. This year, the GCIUS will build a shelter for abused women in Peru. In the Arts, Letters and Culture category, the first recipients were the creators of the literary magazine Jet d'encre, a literary magazine of creative prose, poetry and essays, set up by students in letters and humanities. The Sherbrooke Short Film Festival, a unique initiative, was also selected. Created by students, the festival presents short films from Quebec, Canada and abroad. In the Science and Technological Applications category, there are two candidates. First, the Funambule project, in which four computer engineering students designed a prototype nanosatellite as part of a competition launched by the European Space Agency. The team is one of only two Canadian teams chosen to test its prototype in Bordeaux, France, this summer, during a weightless experiment. There is also the project of the Next Generation of Technologies Club (CPGT), whose mission is to promote the exchange and dissemination of information on new technologies in the fields of geomatics and Earth observation. In the Society, Communication and Education category, the selected project is the one that led to the International Health Colloquium of the Faculty of Medicine last February. Students worked on it for several months. In this same category, we find the project that allowed the holding of conferences by the famous doctor Patch Adams. It is the medical student, Maxime Douziech, who is behind this project that culminated last November. Finally, in the Personality 1st cycle and Personality 2nd cycle categories, three students from the university are nominated. There is Simon Grondin, a student in the bachelor's degree in mechanical engineering, Guylaine Lagüe, a doctoral student in medicine, and Patricia Lefebvre, a master's student in law. All rights stand out for their involvement in extracurricular activities.

## ###ARTICLE\_START### ID:186

Following the open source model, American net-artist Natalie Bookchin and political theorist Jacqueline Stevens launched an ambitious collaborative game project on March 15, AgoraXChange, commissioned by the Tate Online in London. An online, multiplayer, independent and radical game, whose objective is not only to shake up the stereotypes of commercial games, but to change our sclerotic vision of the world. From an initial framework set by four decrees that lay the geopolitical foundations of the game, participants are invited to take an active part in its development online, by expressing themselves on the content, rules, design and gameplay. In a second phase, a committee of artists, activists and theorists will draw inspiration from the contributions to propose three game prototypes. These prototypes will be submitted to the participants who will decide which game will actually be developed. Why did you choose video games as a medium? NB: The game has the potential to be in the 21st century what cinema was in the 20th century, a mass media with an immense reach. A potential that has not yet been truly exploited, because its development depends on the entertainment industry. Designers are forced to make games that they know in advance will be popular and lucrative. There is no truly independent or underground gaming culture. Even if there is a lot of formal experimentation, there is little room for new content. Worldviews are reproduced in the most conservative and conventional way possible. AgoraXChange is an alternative proposal to the game design community, to players and non-players alike, for a true independent, free game, which offers a radical alternative to our current political system. Is the game design also experimental? NB: To get around the cost barrier of such a game, we decided to open our proposal to anyone who believes in this idea and wants to collaborate. The project is inspired by the open source development model. But instead of producing utility software, participants will feed the project with creative, social and political proposals for an alternative, viable, concrete political system. I am delighted to see that, despite the crude side of the site which should become more sophisticated over time, several hundred people have already registered, which makes me hope that the site and the community will really take off when we have improved the interface and clarified things. Why a game anchored in reality? NB: The world we live in offers enough engaging and exciting material, an incalculable number of conflicts to resolve and obstacles to overcome without having to resort to magic, mythical creatures to make a game that clearly deviates from the stereotypical, warmongering and fatalistic worldviews of most games on the shelves. What is the starting framework of the game? JS: I am writing a book, States Without Nations, which makes four proposals (citizenship by choice, not by birth; abolition of marriage, inheritance, private land, editor's note) to alleviate global violence and inequality. During World War I, when members of the supposedly most advanced civilizations in the world were killing each other by the millions, Freud made this observation that was both obvious and astonishing: all these institutions that were supposed to alleviate the anxieties associated with death: the family, the nation, and religion, were in fact organizing individuals into groups that were systematically responsible for more death and destruction than any other group or individual left to their own devices. The preliminaries of the AgoraXChange game are based on these observations. If we can dismantle the laws that constitute the family, the nation, and other ancestral groups such as race, caste, ethnicity; if we can adapt our laws to our mortal condition, then we can imagine how the world could be: less prone to the irrational psychotic outbursts that occur as a result of these futile efforts to dominate mortality. I realized that putting these four propositions on paper as theoretical propositions would make them seem abstract and utopian. It seemed to me that if people could play a geopolitical game online, it would help them visualize these alternatives and make them seem more tangible, more realistic, more plausible. Does this game have an artistic vocation? NB: The goal is to make it a real game, both eminently playable AND a piece of art. I would like it not to be just a formal experiment. But to support these innovative projects, alternative funding is needed. Many artists make modifications, paintings and other works inspired by games but they rarely actually make games. It's a vicious circle. As long as games are not considered art, there will be no support, and as long as there is no money for experimental games, they will not be considered any different from conventional mainstream games. We are trying to do something different, with little money but a lot of will.

## ###ARTICLE\_START### ID:187

Following the open source model, American net-artist Natalie Bookchin and political theorist Jacqueline Stevens launched an ambitious collaborative game project on March 15, AgoraXChange, commissioned by the Tate Online in London. An online, multiplayer, independent and radical game, whose objective is not only to shake up the stereotypes of commercial games, but to change our sclerotic vision of the world. From an initial framework set by four decrees that lay the geopolitical foundations of the game, participants are invited to take an active part in its development online, by expressing themselves on the content, rules, design and gameplay. In a second phase, a committee of artists, activists and theorists will draw inspiration from the contributions to propose three game prototypes. These prototypes will be submitted to the participants who will decide which game will actually be developed. Why did you choose video games as a medium? NB: The game has the potential to be in the 21st century what cinema was in the 20th century, a mass media with an immense reach. A potential that has not yet been truly exploited, because its development depends on the entertainment industry. Designers are forced to make games that they know in advance will be popular and lucrative. There is no truly independent or underground gaming culture. Even if there is a lot of formal experimentation, there is little room for new content. Worldviews are reproduced in the most conservative and conventional way possible. AgoraXChange is an alternative proposal to the game design community, to players and non-players alike, for a true independent, free game, which offers a radical alternative to our current political system. Is the game design also experimental? NB: To get around the cost barrier of such a game, we decided to open our proposal to anyone who believes in this idea and wants to collaborate. The project is inspired by the open source development model. But instead of producing utility software, participants will feed the project with creative, social and political proposals for an alternative, viable, concrete political system. I am delighted to see that, despite the crude side of the site which should become more sophisticated over time, several hundred people have already registered, which makes me hope that the site and the community will really take off when we have improved the interface and clarified things. Why a game anchored in reality? NB: The world we live in offers enough engaging and exciting material, an incalculable number of conflicts to resolve and obstacles to overcome without having to resort to magic, mythical creatures to make a game that clearly deviates from the stereotypical, warmongering and fatalistic worldviews of most games on the shelves. What is the starting framework of the game? JS: I am writing a book, States Without Nations, which makes four proposals (citizenship by choice, not by birth; abolition of marriage, inheritance, private land, editor's note) to alleviate global violence and inequality. During World War I, when members of the supposedly most advanced civilizations in the world were killing each other by the millions, Freud made this observation that was both obvious and astonishing: all these institutions that were supposed to alleviate the anxieties associated with death: the family, the nation, and religion, were in fact organizing individuals into groups that were systematically responsible for more death and destruction than any other group or individual left to their own devices. The preliminaries of the AgoraXChange game are based on these observations. If we can dismantle the laws that constitute the family, the nation, and other ancestral groups such as race, caste, ethnicity; if we can adapt our laws to our mortal condition, then we can imagine how the world could be: less prone to the irrational psychotic outbursts that occur as a result of these futile efforts to dominate mortality. I realized that putting these four propositions on paper as theoretical propositions would make them seem abstract and utopian. It seemed to me that if people could play a geopolitical game online, it would help them visualize these alternatives and make them seem more tangible, more realistic, more plausible. Does this game have an artistic vocation? NB: The goal is to make it a real game, both eminently playable AND a piece of art. I would like it not to be just a formal experiment. But to support these innovative projects, alternative funding is needed. Many artists make modifications, paintings and other works inspired by games but they rarely actually make games. It's a vicious circle. As long as games are not considered art, there will be no support, and as long as there is no money for experimental games, they will not be considered any different from conventional mainstream games. We are trying to do something different, with little money but a lot of will.

## ###ARTICLE\_START### ID:188

Linus Thorvalds certainly never imagined that one day training organizations would be able to offer sessions dedicated to Linux, his operating system that intends to unseat Windows from its IT pedestal. Still not very widespread, Linux training has been following the increasing rate of implementations in companies for a year. A consulting engineer at the engineering consulting firm Alplog, Nicolas Dentant trained a few weeks ago in order to support the growth of his company's activity in this field and to be able to position himself on new projects. A trend that concerns SMEs, large companies and still many administrations. "Among our clients, private companies and administrations or public companies," emphasizes Laurent Marie, sales director of Alcôve. Our particularity is also to work with manufacturers like Thales, Airbus or Alcatel who are looking to free themselves from their dependence on publishers by integrating free software on their hardware. A research engineer at the Ecole nationale supérieure (ENS) des lettres in Lyon and until now a Windows 2000 server administrator, Christophe Girard had to train in Linux when the ENS research teams expressed the wish to work on a Web server integrating free software. "I started by training myself in Linux. But I quickly realized that the theoretical part of the training was substantial and that I would not be able to tackle it alone," he believes. Introductory training courses often begin with a historical and theoretical reminder of Linux architecture. "People often see Linux as a separate software, when in fact it comes from the Unix phenomenon, which is less widespread," explains Alain Cohen, director of Axis formation. "We therefore focus on teaching the common core of Unix, then developing the specific features of software, including Linux." The fact remains that whatever the courses, the principle of the teaching is often the same: to present what differentiates Linux from an operating system like Windows. "This is often where the difficulties lie," comments Raphaël Rousseau, a trainer at Alcôve. Linux offers abstractions, a vocabulary different from what people are used to using." Above all, the interface is no longer the same. "We are often faced with people who have had a "click" thinking methodology and have been used to using the graphical interface," agrees Bruno Berthet of the Hasgard design office. But with Linux, it is better to use the command line, which is sometimes restrictive at first." But the contributory aspect of developing free software also has its drawbacks. "There is a lot of documentation online and you have to know where to find the relevant sources of information," adds Nicolas Silvestre, head of the training division at Aliacom. Offered inter-company, the training courses are also often available in the company, which allows their content to be adapted to the real needs of companies. A company like Hasgard only intervenes on its clients' sites, in order to work in their work environment and directly apply the lessons learned. Using the services of companies that also provide consulting and integration of free software in companies can also be useful. "Taught by experts, the training allows you to benefit from their field experience," acknowledges Christophe Girard. Not to mention that you need to practice before becoming a Linux ace. There is no point in expecting to become a network administrator in a few days of training: it is therefore better to be wary of the oversized titles in certain catalogs that claim to be. "A week of training is a minimum to familiarize yourself when you start out," admits Christophe Girard. Alongside these training courses for professionals, some training courses aimed at non-IT end users are now timidly appearing with administrations and associations, which are the main users. This is particularly the case for the Open Office office suite, which offers, on the model of the Microsoft pack, a spreadsheet, a word processor and a presentation software, as well as a mathematical formula editor. Word processing and spreadsheets are currently popular with trainees and are the subject of 2 to 3 day sessions depending on expectations. "Since 2003, demand has been starting and we have led half a dozen introductory Open Office courses, says Nicolas Silvestre. We have to ensure the transition from one software to another for users who have been working for 5, 10 or 15 years on the Microsoft suite regardless of its version and must therefore overcome a psychological barrier."

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With this desacralization of workplaces that has led to the proliferation of self-employed workers and the explosion of interest groups of all kinds that are appropriating new technological work tools, there is no doubt that "synergic" will be the next category of software packages to experience success, just like content publishing tools today. It is fascinating to see how members of interest groups manage to appropriate new technological tools. For example, a few years ago, content management and publishing tools were selling for a fortune and were out of reach of said groups or small and medium-sized businesses that wanted to have their own showcase on the Web. All that remained were "Frontpage-style" web page editing tools, difficult to approach for ordinary mortals and reserved for only a few users. Browser and a pen Fortunately, open-source tools like SPIP have allowed group members to publish on the Internet, without even having to learn a single line of HTML code. "Web notebook" type publishing tools have pushed this ease of editing and publishing content on the Internet even further. Today, many interest groups have adopted a software package like SPIP. A browser and a good pen are all that is needed these days to publish on the Web. Technical knowledge required? Zilch! None! Nada! Thanks to these publishing tools, the Internet has become a privileged space for expression for interest groups. However, a new generation of tools is likely to interest these interest groups as much as managers of small and medium-sized businesses: "synergiciels" or group work software. In Chinese, "groupware". Born at the same time as Lotus Notes software, one of the first synergistic software to see the light of day, group work tools are not only a set of software packages allowing a community to work together, but by pushing the metaphor further by going beyond group work, it is in fact the catalyst for real teamwork. It allows, both simultaneously and sequentially, to call upon, according to needs, different people. Thanks to these powerful and sophisticated tools, team members have the possibility of working in real time or in deferred time, in different places. Certain reluctance Let's not kid ourselves, traditional bureaucracies have a certain reluctance to adopt this new way of working. Indeed, by combining several different concepts such as information transport, archiving and delayed restitution of information, and by introducing notions of sharing and interactivity by allowing individuals to act and interact with each other, people who use synergy software are freed from an annoying guardianship that was as much a hindrance to their creativity as to their productivity. "I synergize therefore I am". Until very recently, synergy software was reserved for a class of rather wealthy users. A good mortgage loan was necessary to acquire synergy software such as Lotus Notes. This was all it took for the developer community to mobilize and decide to take action with the mission of producing open-source synergy software. In fact, the community has responded so well that several synergy software are now available, each with its strengths and weaknesses. Some tools focus on managing agendas and calendars, while others promote the use of email. But beyond all that, they all try to stimulate the exchange of ideas while encouraging the management and sharing of knowledge. The whole package Among the tools available on the Web, one of them stands out remarkably: E-Groupware. Right from the start, let's specify that E-Groupware has a multilingual interface, that is to say that some will choose, for a question of comfort, to use menus in French, while others will prefer the English interface. In fact, E-Groupware can be used indifferently in more than 15 different languages. E-Groupware is the whole package. For those looking for a project management tool, E-Groupware is there. For those who are desperate to get their hands on a software package managing agendas and calendars, you need E-Groupware. Email, shared address books, personal messaging and discussion forums? All these tools are integrated into as many modules within E-Groupware. Is publishing content "à la SPIP" at the heart of your concerns? Have I already told you about E-Groupware? A knowledge base is essential for your team? Yes, once again, E-Machin tells you "yes, yes, and yes again!" Because that's the beauty of E-Groupware: the user has the choice of installing or not one of its many modules. There is even a powerful brainstorming module, a wiki, which will encourage the flowering of ideas. After all, isn't it the season of ideas? E-Groupware is aimed as much at interest groups that have long dreamed of using a tool to bring troops together in a virtual place in order to structure their actions as at small and medium-sized businesses that salivate with envy every time the expression "knowledge sharing" is uttered. Similarly, municipalities, state agencies, or even an entire ministry would have everything to gain by examining E-Groupware (or any synergy software) closely. Obviously, despite its extreme ease of use, which is matched only by its great flexibility, allowing it to realize a host of ideas, we must not neglect the most important issue: ensuring that the training given to individuals who must use such a powerful tool is acceptable. This is the sine qua non condition for all members of a group to appropriate this technology in order to make it a tool for sharing ideas and knowledge.

## ###ARTICLE\_START### ID:190

All gamers are familiar with Half-life 2 or Doom 3, rarer are those who know Freeciv, Bzflag, TEG, Battle of Wesnoth or Arkhart. This weekend, the first video game show on a free platform is being held in Limoges. The opportunity to bring together two communities, the video game and the free software communities, which are not used to mixing. The public will have two days to learn about the philosophy of free software through conferences, demos, meetings with developers, and educational insights. As a practical application, enthusiasts will be able to cut their teeth on a Game-coding party open to all upon registration, an exercise consisting of coding game sequences for five hours, supervised by professionals who will teach them the first elements of developing a networked title. Milestones. If this type of practice is not yet widespread, small motivated teams like Nekeme Prod. (1) lay the first milestones in their "Free Play Charter", essentially defining free play as a game whose code is freely accessible, allowing everyone to make improvements or even major modifications, whether it is simply to correct a bug or to reuse the code to create a completely different game. Created two years ago, the association, which has around forty members, aims to become a hub for free play in France. On its site, it hosts four game projects presented in Limoges: from the militant Slune, where the player's mission is to find AIDS drugs to send them to Africa, to the role-playing game Arkhart, which pits humans against insectoids. Also currently in progress is the ambitious Gobelins, where players evolve in a complex world called the Labyrinth: "The goal is to make a free online game, developed in OpenDesign. Anyone could host a section of this universe and the sections would be linked together. Our team will therefore not focus on designing a persistent world but on manufacturing the tools needed to build one," Nekeme explains on its website. Cooperate. In the ultra-competitive world of video games, manufacturing secrets are rarely divulged. However, for free software advocates, developers would have everything to gain from cooperating with their peers. "Access to the source code of other games would allow them to develop a similar concept more quickly or improve what already exists," explains Thomas Ribo. The main handicap of free software games is their poor artistic qualities, which prevent them from competing with commercial games. "Unlike accounting software, the game is only composed of a small part of code (a third), the rest being "artistic": game design, graphics, sound and music, disciplines in which free software has difficulty establishing itself. Most free software games are made entirely by coders," emphasizes Thierry Mallard, an open-source specialist. Contacts between artists and the free software community remain limited, not due to a lack of interest but rather due to a lack of information, according to the members of Nekeme. "That's why we're trying to get close to the level of current commercial games," explains Maxime Petazzoni, "in order to bring free games out of hiding, out of their graphic silence." (1) www.nekeme.net

## ###ARTICLE\_START### ID:191

"A sort of virtual supercomputer." Fabio Hernandez, a computer scientist at the CNRS computing center in Lyon, sums up the success of the European DataGrid program, which has just ended. Launched in 2000, it has just demonstrated that networking hundreds of small computers could take over from supercomputers to churn out large scientific calculations. And at tiny costs. The idea was born in particle physics laboratories. They are preparing to put into service the Large Hadron Collider (LHC), currently being installed at the European Center for Nuclear Research (CERN), near Geneva. In 2007, it will be the most powerful particle accelerator in the world and will allow matter to be probed with unprecedented precision thanks to a higher energy level. On condition that we know how to analyze the billions of pieces of information that will emerge from violent collisions between particles. This is where Hernandez's "virtual supercomputer" will come in. Thousands of processors, at least 10,000, will be networked throughout Europe to analyze data sets of a size never before achieved, counted in petabytes (numbers with 15 digits before the decimal point). Pessimistic. This need of particle physicists has turned into a godsend for other researchers. Why not open this giant virtual computer to all those bioinformaticians, geophysicists, astronomers, etc. who do not always have the means and skills to use traditional supercomputers? Especially since these same scientists could provide part of the solution: in their labs, thousands of personal computers "sleep" for a good part of the 24 hours of each day. The European DataGrid project was born. Led by computer scientists at CERN, where the Web was invented, funded (10 million euros) by the EU, pooling the resources of 21 institutes from 8 countries, it demonstrated that the idea was a good one. And it allows us to envisage a new research infrastructure: fabulous computing power available 24 hours a day to any researcher, easy to access and for almost peanuts. During successful tests, says Fabio Hernandez, the European "grid" has shown the extent of its possibilities. Comparing a DNA sequence with all the sequences contained in the databases? The biologist simply submits his sequence, indicates the name of the databases, and "everything else is taken care of by the software". The biologist quickly receives the results, without even knowing where and by which computers they were calculated. With each calculation, the network reorganizes itself, calling on available computers sometimes as far away as Russia and Taiwan while others are used by their owners. The same ease for comparing X-rays of a patient's lungs with thousands of others in order to facilitate a diagnosis. Or the use of the enormous power of the network to calculate very precisely how to irradiate a brain tumor without attacking healthy neighboring cells, which involves precise and heavy physical models. In Earth sciences, it is the Pierre-Simon-Laplace Institute (Paris) that has used DataGrid to reconstruct in three dimensions the stratospheric ozone layer above Antarctica from satellite data. Pipes. The rest of the operation is already in the pipeline. The DataGrid software is approved by the OpenSource Initiative Corporation, so it is free. And will constitute the starting point of the permanent computing grid that the European Commission has decided to build in view of the success of the operation.

## ###ARTICLE\_START### ID:192

"The Web is dead, long live P2P." The slogan is not only provocative in a context where peer-to-peer (P2P) exchanges have a rather bad press, pointed out as the main culprits for the crisis of records and cinema. Here is a network artist, already noted for his proposals for collective appropriation of the media with Teleweb, the self-media server, who is keen to gangren the non-hierarchical exchange networks with arty proposals. With Ekart, a keyword to add to any sound, video or text file that has any artistic dimension, art can pass without an intermediary from the creator to the viewer. Even more direct than with the Web, where the artist, even if he broadcasts on his own site, must generally go through a private host. For David Guez, a media activist with a passion for computer tinkering who has been in exile for two years away from the Internet, the Web is dead: "The law on the digital economy (currently under discussion in Parliament, editor's note) puts a brake on the private reading of emails, prevents a site from being published in a completely free way because the control will be done by the host", who is supposed to judge the legality of the content it stores. On the contrary, "P2P is not just pirate downloading. It is above all a tool for exchanging between computers that does not go through any mediator", he adds. Launched a few weeks ago, the Ekart project is not so easy to set up, the very principle of P2P making difficult the artistic "propagation and contamination" dreamed of by David Guez, very involved in the fight for "free", meaning free software, these programs that are open in their writing, and subject to any collective modification of the type Linux, Emule, Gnutella, etc. On P2P networks, the easiest thing to exchange is what is most present on Internet users' machines, i.e. Michael Jackson and Britney Spears rather than Internet artists... Hence the idea of a keyword, a sort of "P2P label" that allows a thematic search on Emule or Kazaa. And an interface on the Web (while waiting for it to die...) to allow those who are put off by these still somewhat complicated manipulations to download said content with a click. The list of Ekart "works" is not that long today, and the content is still weak. Nevertheless, Ekart could become the haunt of Net-art purists.

## ###ARTICLE\_START### ID:193

In the context of the procedure for abuse of a dominant position initiated by the European Commission against Microsoft, a procedure which notably concerns the coupling of Microsoft's media player, Media Player, with the Microsoft Windows operating system, the American multinational was sentenced on March 24. The multinational will have to pay a fine and market a version of Microsoft Windows without Windows Media Player, as well as reveal certain technical information to its competitors. The remedies proposed by the Commission are insignificant: it ratifies the monopoly that Microsoft has built thanks to practices which violate the EU Treaty (art. 82), and which gives it supremacy in a strategic sector of the European economy. The main sanction (497 million euros) is more like the payment of a tax which constitutes officialization of the practices. The war chest accumulated by Microsoft, 50 billion dollars, will allow it to face without great concern, and its position on the market will not be called into question. Although a letter signed by ten American parliamentarians expresses its indignation that the EU dares to judge a case primarily concerning American companies, these sanctions are only a publicity stunt. They will not allow the emergence of a market where competition would operate freely. Effective competition would imply allowing any player to implement compatible software. To do this, all the information necessary for writing programs compatible with Windows must be made public, without access restrictions. Microsoft has in fact taken advantage of the vagueness of the formula "reasonable and non-discriminatory terms" used by the American Department of Justice in a similar procedure, to de facto exclude developers of free software. Indeed, the delivery of interfaces is not in itself sufficient without a guarantee of free and non-discriminatory licenses on any patent or copyright involved in the practical realization of this interoperability: if to use the interface, a patent must be used, the competitor is stuck. This amounts to describing the functioning of the nut while holding a patent on the bolt. However, Microsoft has repeatedly acknowledged that its main competitor is free software, the production of which in Europe far exceeds that of the United States. According to IDC studies, GNU/Linux software has had the highest market penetration rate in recent years. Recent comparisons between the Microsoft Office and OpenOffice.org office suites clearly define free software as a serious alternative. It is also reasonable to wonder why four years of investigation were necessary to establish Microsoft's abuse of a dominant position. This could be laughable if the freedom of consumers, including those in the public sector, were not at stake. A simple visit to a hypermarket would have shown that the right to competition and consumer freedoms are not respected. These individuals are offered ranges of computers that include at least Microsoft's operating system. Buying a computer without this software is, although it is contrary to the consumer code, most of the time refused, its sale being linked to that of the machine. This is the basis of the problem of tied selling that Microsoft practices from the operating system. If it is legitimate for a reseller to offer as an option the pre-installation of software on the computer, imposing their purchase is at the very least abusive. It is however possible to proceed differently: the Sun company sets an example by pre-installing several versions of its Solaris operating system on some of its machines and by inviting the user to delete those for which he does not purchase a license. Selling a computer by imposing the purchase of software is as absurd as imposing the purchase of the complete Dalida collection with each purchase of a music player. In the case that concerns us, there is confusion between the hardware and the software user license agreement. The latter is a service and can in no case be treated as a hardware component. The steps taken to reimburse unused software, a process that is little known to the general public, when initiated by individuals and companies, are long, difficult and their success uncertain. The amount of the reimbursement is also uncertain in the absence of a detailed breakdown of the price of each item (hardware and software) supplied and sold. In his statement of 18 March 2004, European Commissioner Mario Monti stated that "he believes that the best solution is to adopt a decision that will set a strong precedent". For real competition and for the freedom of choice of the consumer, we encourage him to actually take strong and truly effective decisions, before it is too late. Indeed, after its monopoly on workstations, Microsoft is working to take possession of digital data formats and technical measures for protecting this data, which will allow it to obtain a monopoly on cultural content. The result would be the same if we let a single entity appropriate the VHS, DVD, CD, GSM, TV, radio standards... this entity would become the only one authorized to manufacture TVs, radios, VCRs, telephones... To safeguard consumer rights and free competition, a real change in policy on the part of the Commission must involve the following measures: separating hardware, operating systems and applications. allowing other companies to provide peripheral drivers (for hardware such as video cards, DVD players, etc.) giving the consumer a choice as to the software they want to acquire. If the customer does not want to acquire the software, there is no reason why they should be forced to do so. Mitchell Kertzman, CEO of Sybase, already indicated in 1997 in 01 Informatique "I know Microsoft, I know that it tries to discourage competition, and that it is getting worse and worse." It is time to condemn Microsoft's methods before this company creates a private monopoly on technologies for accessing culture and information. The key to the market economy is the freedom to make a fully informed selection of the most appropriate offer. This foundation is now being undermined. Daniel Cohn-Bendit, MEP, Green Frédéric Couchet, from the Free Software Foundation.

## ###ARTICLE\_START### ID:194

The European Commission's decision to not only fine Microsoft under antitrust laws, but to require the Bill Gates-founded company to produce a version of its operating system without its Windows Media Player, should be applauded. In addition, as a result of this decision, Microsoft will have to reveal to its competitors within 120 days strategic information about how the different versions of its Windows operating system work. Old Europe succeeded where America had failed miserably, despite the last-minute intervention of Microsoft chairman Steve Ballmer. It did not believe for a moment Ballmer's claims that separating the Media Player would go against the wishes of consumers, or that such a split would be technically impossible. But, above all, and this is what should be applauded, it has been able to resist the temptation to reach an out-of-court settlement and capitulate to the power of money. Lack of courage However, this decision comes much too late. Despite the decision of the European Commission, nothing will be able to prevent the Microsoft machine from continuing to outrageously dominate the IT world and prevent innovation from flourishing there. As an American company, it was in America, during the trial opposing it to Washington and 18 American states, that much more decisive decisions should have been taken. By agreeing to settle amicably with Microsoft, the American authorities lacked the courage that, in the past, had allowed the breakup of AT&T's monopoly in long-distance calls. Because common sense would have dictated that the American authorities should not accept any compromise and should have ordered the splitting of Microsoft: on one side, the Operating Systems division, on the other, the Applications division. By agreeing to settle out of court, the American authorities have simply decided to postpone a decision that they will have to face in the future. Let's not kid ourselves, by controlling both the operating system, the software package necessary for the proper functioning of computers, and the applications, Microsoft still has this unfair advantage over its competitors. And if the past is any guide to the future, it would not be surprising to see Microsoft still using questionable tactics to prevent its competitors from innovating. The example of Go For example, just this week, the New York Times revealed that in 1990, Microsoft had pressured Intel to cut off funding to Go Corporation, a young company that was developing Pen Point, a handwriting-based operating system for personal digital assistants (PDAs), and in which Intel was betting heavily. In the words of Bill Gates' letter to Andrew Groove, the chairman of Intel, the founder of Microsoft, "any support for Go Corporation would be seen as a hostile gesture toward Microsoft." Shortly thereafter, Intel substantially reduced its support for Go Corporation, and in 1993, after many setbacks, Go abandoned development of its operating system and was acquired for next to nothing by AT&T. Oddly enough, three months later, Microsoft also ceased development of its Pen Windows operating system. In short, today, as Microsoft works on its new operating system, which will likely integrate even more tightly with various software components, in addition to a much-maligned digital rights management system, it is appropriate to ask Canadian government authorities whether they have the courage to examine Microsoft's business practices as well. Similarly, with the competition, when Microsoft tries to impose itself in other markets such as cell phones or integrated entertainment devices? More than ever, it is appropriate to put pressure so that before investing public money in an operating system, a suite of applications or server software, government authorities have given a reasonable chance to products developed by Microsoft's competitors and have carefully examined the other choices available to them. Other solutions Obviously, we will have understood that the free software that, today, has succeeded in imposing itself on the Web to the detriment of the Redmond giant, is one of these solutions that are offered to administrators of large accounts. Large companies like IBM and Hewlett-Packard, as well as smaller ones, now offer a different choice, but just as competitive. There is also the Mac OS and all the other commercial versions of UNIX. Choice. This is what is essential to remind our governments. We are not among those who demand that Microsoft be deprived of all calls for tender, quite the contrary. Microsoft has long offered excellent products, and others that are questionable. As a shareholder in several "companies", one of which is called Canada, the other Quebec, and Lorraine, my new adopted municipality, I simply ask the directors of these companies to carefully examine the solutions offered, and to judge the merits of the choices proposed by the competition. While waiting to see the American authorities start questioning Microsoft's business practices again, and that will come, rest assured, it is appropriate to ask the following question: where should we send the check? Always to the same place, in Redmond, Microsoft's headquarters, or to many companies, several of which are Canadian, and which are currently working to develop equally efficient solutions, but which will employ many workers?

## ###ARTICLE\_START### ID:195

Created by a friendly programmer from Old Europe, DotClear is an authoring software developed entirely in French and designed to edit and put online your Web notebook (blog). Just as powerful as the big guns of the industry, that is to say Movable Type, Drupal or Pmachine, Dot Clear is one of the rare (and good) products that, during the basic installation, proves to be compliant with W3C standards. n www.dotclear.net Multi-user and equipped with a flexible commenting system, DotClear offers much better accessibility to content by visitors using unconventional means of access such as mobile phones, Braille displays, screen readers and personal digital assistants connected to the Internet. According to the author who describes himself as "paranoid", DotClear is an application on which security has been the subject of particular attention. DotClear is free software distributed free of charge under the terms of the Mozilla Public License.

## ###ARTICLE\_START### ID:196

Click on the cart and the link leads directly to the smart universal and paying bookstore Amazon. Click on the overturned cart, and a radically opposite utopia is offered to the Internet user. No attractive covers, no plug-ins to download, no credit card number to provide. Text, and nothing else, in ASCII, white on a black background. Nearly 800 articles, novels, essays, manifestos, poems are published on Textz.com. Writings from all countries, and all eras, in German, English, French or Italian. Debord, Critical Art Ensemble, Deleuze, Negri, Bourdieu, Benjamin rub shoulders with Rimbaud, Bret Easton Ellis, Bataille or Dostoyevsky. "It's not so much a particular text that interests me, but certain combinations: Kafka AND Richard Stallman (the inventor of free software, editor's note), or Douglas Adams, the science fiction author, AND Adorno," explains the project's initiator, Sebastian Lütgert, 31, a writer, programmer, artist, and member of AS Ambulanzen, a Berlin collective that campaigns for the abolition of copyright. "Textz is both an archive of critical texts, useful for people who don't have access to specialist bookstores, and an element in the fierce fight against intellectual property." A system that he considers obsolete since the advent of the Internet and the entry into the digital age. "The future of online publishing is right next to your computer, it's a $50 scanner and printer connected to the Internet," states the manifesto that introduces the project. Works. Textz is a shared library where anyone can come and drink freely, print or send the texts they consider interesting. But Textz "is not a Project Gutenberg", a reference to the oldest free online library that only distributes works that have fallen into the public domain, which the activist considers "canonical, worse, it waits for the authors to die to publish them", but a "GNUtenberg Project (play on words for the GNU public license): the Gutenberg galaxy in the age of copyleft distribution." Textz would be the equivalent of a literary Napster, where Internet users exchange texts instead of music. "A specter haunts the industrial world, the specter of global and organized file sharing", quips the virulent collective, which believes that this movement is irreversible and irresistible. Even if, for some time, Sebastian has been in trouble with the law. Surprisingly, in four years of existence, Textz has only had to remove two or three texts from the database. "It's not the first time I've had to deal with lawyers," the artist admits, "but it's the first time I've heard of a court and that they want to send me to prison." In this case, the Hamburg Foundation for the Promotion of Science and Culture, which in August 2002 ordered him to withdraw two texts by the philosopher Adorno, the rights to which it held. Prosecution. "At the time, I was living in New York, they couldn't reach me, so the court decided without me." In the meantime, Sebastian withdrew the disputed texts, but in December 2003, he was sent an arrest warrant for copying Adorno and a fine of 2,300 euros, an amount he didn't have. "I wrote a letter to the president of the Foundation, in which I told him that as the "intellectual owner" of Adorno and Benjamin, he had at least one responsibility, that of reading "his" texts to see what the authors say about intellectual property." The letter remained unanswered. The ongoing affair is causing a stir, an online petition has been launched. "This kind of stupid action will only encourage other battles," Lütgert believes, "it is an exemplary case, which shows a copyright system broken in its very foundations. Used by people who do whatever they want, used against the authors it claims to defend. But people are not stupid, they will continue the reappropriation and not only of Adorno."

## ###ARTICLE\_START### ID:197

DESPITE A RECORD FINE and drastic remedies imposed on Wednesday, March 24 by the European Commission to put an end to its anti-competitive practices, it is a safe bet that the impact on Microsoft's business will be zero. Indeed, by appealing to the European Court of Justice and requesting a suspension of the decisions, the American IT giant hopes to gain four or five years. "This reflects Microsoft's attitude well," notes Roberto di Cosmo, professor of computer science at the University of Paris-VII. "They are going to play on the deterioration of the situation, gain time and during this period, Real Player [the alternative to Microsoft's Media Player audio and video file playback software] will disappear from the market." "In the appeal procedure, we want to discuss the framework for the evolution of Windows," Christophe Aulnette, the general manager of Microsoft France, told Le Monde. "It is important that we can continue to innovate without being stopped along the way." This speech has been rehearsed by Microsoft executives for years. This is even the basis of the Redmond firm's development: integrating ever more features into the Windows operating system. This tied sales strategy should not be changed. For example: "One day or another, we know that we will be able to replace the mouse with voice. It seems natural and interesting for the consumer that we can put this feature in Windows," explains Mr. Aulnette. But integration means that small companies that can claim to develop solutions in this sense cannot survive. The Internet browser, Netscape, did not survive the integration of Internet Explorer into Windows. But an agreement with the European Commission is important to avoid other trials in Europe. The group is working on the release of its next operating system, codenamed Longhorn, scheduled for 2006. The world leader in software intends to integrate Internet applications into it. According to users of free software, the Brussels decision is a non-event. "Ultimately, it is the consumer who will pay the fine imposed on Microsoft," regrets Alain Coulais, from the French-speaking Association of Free Software Users. "Thanks to information we have obtained from assemblers, we know that, in recent years, the price of the Windows operating system has increased by more than 25% while the hardware has dropped by 20%. And if you want to buy a computer without Windows, it costs more." Supporting the document, a quote from the manufacturer Dell proves that uninstalling the operating system as well as the Works 7 software - a lighter version of the Office office suite - costs 700 euros. In a letter sent to Mario Monti, the European Commissioner for Competition, and to Frits Bolkestein, his colleague responsible for the internal market, free software user associations expressed surprise that the strategic issue of tied selling had not been addressed "even though it begins with the purchase of a computer." They especially regret that the consumer cannot obtain from the sellers the prices of the software included in the computers. "Did you see the price of Microsoft Windows when buying your computer?" ask the signatories of this letter. For Mr. di Cosmo, this is the key to the problem: "A computer with integrated Real Player will cost less than a computer without. Microsoft will know exactly how to go about strangling the manufacturers." And at the same time maintain its supremacy.

## ###ARTICLE\_START### ID:198

BRUSSELS from our European office - The European Commission confirmed, on Wednesday 24 March, the SANCTIONS imposed on Microsoft. These include a record fine of 497 million euros, but above all corrective measures that the group must take to facilitate competition. The software manufacturer has decided to APPEAL and to request that this appeal be suspensive. The American government regretted the sanctions, which only concern the European market. The USER ASSOCIATIONS of free software regret that the Commission did not go further. For them, in fact, Microsoft's monopoly will continue. For the lawyer Marie-Anne Frison-Roche, the decision introduces INNOVATION as a new essential pillar of competition law, alongside lower prices. "The company could not ignore that it was violating European rules": without departing from his usual calm, Mario Monti had very direct words to justify, on Wednesday March 24, the decision of the European Commission to condemn Microsoft for abuse of dominant position. After five years of investigations and negotiations, the American software manufacturer was fined 497 million euros. A record in Europe, even if this sum represents less than 2% of the company's turnover. To put an end to "this illicit behavior", the Commission is above all asking Microsoft to implement a series of corrective measures, in order to force it to modify its commercial practices in the areas where it has a "quasi-monopoly" situation. But this decision, the effects of which are open to discussion among experts, risks giving rise to a long legal battle, or even new tensions with the American authorities. Even more important than the fine, even if they are limited to the European area, the remedies imposed focus on two markets. On the one hand, the Commission gives Microsoft 120 days to disclose to its competitors some of the information likely to ensure the interoperability of rival software in the field of servers installed at the heart of computer networks. For revealing the documentation on Windows "interfaces", Microsoft could, according to the Commission, "claim remuneration, which must remain reasonable and non-discriminatory". On the other hand, the Commission attacks the tied sales of the Windows operating system and software for playing sound and video files on the Internet (Media Player), offered together to the detriment of competing products: Microsoft has this time 90 days to offer its customers a version of its Windows operating system not equipped with Media Player. Bill Gates' firm must, at the same time, "refrain from using any commercial, technical or contractual means that have the effect of making the unrelated version less interesting or less efficient". "The decision re-establishes the conditions for fair competition on the markets concerned and sets out clear principles as to the behaviour that a company enjoying such power on the markets must have from now on, for the greater benefit of consumers", explained Mr Monti. This should allow new investigations to be carried out more quickly, with another complaint against applications linked to Windows XP having been waiting in the drawers of European officials since the end of 2002. Microsoft's rivals active in the European procedure were also pleased with the sanction: RealNetworks, whose software suffers from the hegemony of Media Player, considers it "fundamentally important because the Commission has formally affirmed that Microsoft's strategy of integrating Media Player is illegal". The group immediately counter-attacked. Brad Smith, Microsoft's chief legal officer and number three, confirmed his intention to file an appeal as soon as possible with the Court of First Instance of the European Court of Justice. "This decision constitutes an unprecedented challenge to our intellectual property rights," he said: before being informed of the merits of the case, Microsoft hopes to obtain a suspension of the measures imposed by the Commission from the European judges. From the United States, Steve Ballmer, Microsoft's CEO, assured that the solutions proposed by the group last week, before the failure of final talks with a view to a possible amicable compromise, "would have offered more choice and benefited consumers more" than those imposed by the Commission. While the dispute could last several years, the company considers that it is still possible to reach an agreement with the Europeans, as was done in the United States fifteen months ago. On Wednesday, the company received the support of the American government, which has so far remained attentive but discreet in this dispute. In Washington, the Justice Department criticized the European conclusions. The amount of the fine was considered "unfortunate." "The American experience teaches us that the best remedies in anti-competitive matters are those that eliminate obstacles to the healthy functioning of a competitive market, without hindering the most successful competitors or imposing burdens on third parties, whereas this could be the result of the solutions chosen by the European Commission," explained the head of the department's antitrust division, Hewitt Pate. For him, the Commission's decisions could "slow down innovation and competition even from dominant companies." Earlier, Mr. Monti had nevertheless sought to defuse the risk of controversy with the American authorities: "This case can in no way be interpreted as relating to a conflict of commercial policy between the European Union and the United States," he said to defend one of the flagship decisions of his mandate, which he said he was already sure "would hold up."

## ###ARTICLE\_START### ID:199

Let's imagine a washing machine that was sold with barrels of detergent. The detergent manufacturers would cry out that there was a denial of competition, take the matter to court and demand that the company that is taking advantage of its dominant position in washing machines to steal their market share in powder be condemned. This is exactly the situation of Microsoft, whose Windows operating system, which accounts for 95% of the personal computer market, is supplied with a host of additional software, including the Explorer web browser and the Media Player audio-video player, to the great fury of the companies offering such programs. Theoretical. Will the sanctions against Microsoft announced today by the European Commission put an end to this situation? On paper, Europe is not hesitating to strike hard, with a record fine that could reach 500 million euros and the obligation to market two different versions of Windows, one with Media Player and the other without. On the competitors' side, however, enthusiasm is very measured. "I'm not very impressed," says Hakon Lie, one of the directors of the Norwegian firm Opera. First, the amount of the fine, very high for any company, is a "shot in the dark" compared to the gigantic reserves of 43 billion euros that Microsoft has, as economist François Lévèque points out. As for the brake on the tied sale of Media Player, it will remain "fairly theoretical until the appeal procedure is successful," says the director of a competitor, who nevertheless acknowledges that the antitrust procedure initiated by Europe has "very clearly put a stop to certain pressures not far from dishonesty exerted by Microsoft." But, above all, "the scope of the European decision is not broad enough; they should be forced to provide Windows without any applications so that consumers have a choice," criticizes Hakon Lie, whose firm sells a Web browser in direct competition with Microsoft's Explorer. According to him, there is no point in prohibiting the washing machine manufacturer from selling detergent if it can continue with fabric softener, pants and water to power the appliance. However, Microsoft already supplies Windows with, among other things, instant messaging and videoconferencing programs and has already announced the presence of a search engine in the future version called Longhorn and planned for 2006. And Bill Gates' company refuses a priori to stop adding more and more software to Windows. "Will we be allowed to put an antivirus in Windows by default tomorrow? The answer should not automatically be no to the integration of new programs that provide ease of use," says an executive of the French subsidiary. Detailed price. At the Commission, they are counting on the "precedent" of this conviction to limit Microsoft's future appetites, or at least facilitate possible future trials on similar cases. For the most fierce opponents of the decision, this is very insufficient. "We should not be under any illusions, tied selling in this sector begins with the purchase of a computer," says Bernard Lang, of the French Association of Free Software Users, which notably defends the Linux operating system. He points out that it is almost impossible to buy a computer without it first being equipped with Windows and suggests that "the law requires detailed indication of the price of hardware and software so that people can choose what they want from the start." And thus avoid the washing machine manufacturer imposing its appliance on consumers by automatically installing it in all bathrooms.

## ###ARTICLE\_START### ID:200

Users of "free software" such as Linux at the University of Sherbrooke now have a centre dedicated to them on the Sherbrooke university campus. The inauguration of the premises, located in the J.-A. Bombardier building (faculty of engineering), took place yesterday. The result of a collaboration between two student associations, the Linux User Group of the University of Sherbrooke (GULUS) and the local branch of the Institute of Electronical and Electronic Engineer (IEEE), this centre is intended to be a technological showcase and a training center. The centre has ten workstations, including six lightweight terminals. These are in fact obsolete computers that have been connected to a powerful and recent computer that acts as a server. This approach allows students to benefit from modern work equipment for the sole cost of the server. A space is reserved for work with portable computers that can be connected wirelessly. The premises in question were donated by the Faculty of Engineering and the equipment comes in part from the Information Technology Department of the University of Sherbrooke, the Student Equipment Fund of the General Association of Engineering Students and the Canadian Foundation of the IEEE. GULUS is a student association whose goal is to promote the use of the Linux operating system as well as free software. For its part, IEEE Sherbrooke is the local student branch of the Institute of Electronical and Electronic Engineer, the largest professional association in the world bringing together computer scientists and engineers working in the fields of computing, electronics and electricity.

## ###ARTICLE\_START### ID:201

Yesterday, Paul Martin praised the University of Sherbrooke without restraint and his party has set itself the goal of presenting a candidate with the same prestige in the riding of Sherbrooke. The Prime Minister dodged all questions on the subject during his visit to Sherbrooke yesterday, but he expressed his confidence in winning the riding from the Bloc. His lieutenant for Quebec, Jean Lapierre, drew a parallel with the influence of "the University and Sherbrooke as a regional capital" without revealing the name of the person being courted. To distance himself from the negative perceptions spread by the sponsorship program, Prime Minister Martin, clearly on a pre-election tour, showed great concern for the success and influence of the University of Sherbrooke (UdeS) and its renowned researchers. "The region, the province and the country need a university as impressive as the Université de Sherbrooke in the 21st century economy," he said before leaving the university campus, urging journalists from the national press to take note of what sets this institution apart within the Canadian university network. Beforehand, Rector Bruno-Marie Béchard, Vice-Rector (Academic), Edwin Bourget, and eminent professors associated with various research chairs had spoken to Mr. Martin for more than an hour, praising the 250 research contracts that will generate public and private investment in the order of $95 million during the 2003-2004 fiscal year. This external funding has increased by 280 per cent in six years. Premier Martin was able to measure the impact of the Sherbrooke discovery on speech compression, an innovation now integrated into "a billion cell phones and 300 million computers," Vice-Rector Bourget was quick to point out. Similarly, Sherbrooke scientists have developed a new technology that would make it possible to print the Bible on a ten-cent coin, but its marketing has not yet been completed. "In Quebec and Canada, we are excellent at generating new ideas and bringing them to a certain degree of maturity, but it is a challenge to find the resources needed to take the commercial turn with the equipment needed to produce," testified Éric Lavallée, of the firm Quantiscript Inc., founded in partnership with the University of Sherbrooke. Mr. Martin was also informed of the Edulinux revolution, the free software service that competes with the giant Microsoft and which populous countries like China and Russia are aligning with. "China will change the game," suggested the Prime Minister. "Yes," replied researcher Benoît des Ligneris, cleverly suggesting that the Prime Minister commit the federal government to this new era of information technology right away. This is the first time that the Université de Sherbrooke has hosted a Canadian Prime Minister, "a great gift for our 50th anniversary," the rector rejoiced. Very comfortable alongside Paul Martin, Bruno-Marie Béchard denied once again that he could be the star candidate that the federal Liberals are looking for in Sherbrooke. "Not only will we find a candidate, but I am convinced that we will find the next MP for Sherbrooke," Mr. Martin limited himself to saying.

## ###ARTICLE\_START### ID:202

INTERNATIONAL MULTIMEDIA LEARNING MEETINGS (RIMA) (2nd presentation) ArRIMAges: getting to know each other. Seymour Papert, a mathematician recognized worldwide as an expert on new ways of learning with technology, and James Paul Gee, a professor at the University of Wisconsin, whose most recent work highlights the mechanisms of learning in video games and at school. Presented by the Quebec Chamber of Commerce, Economic Development and Heritage Canada and the Government of Quebec on March 15, 16 and 17 at the Hilton Hotel, 1100, boul. René-Lévesque, Quebec. Info: (418) 692-3853, Mélanie Grenier www.rima2004.org SEMINAR Free software, an alternative to proprietary commercial software. Louis Fortier, Director of Development and Technology Transfer (CRIM), Benoît de Ligneris, President (Révolution Linux), René Marquis, Director of IT Services (Laval School Board). Presented by the Fédération de l'informatique du Québec (FIQ) - Québec section on March 17, from 8 a.m. to 12 p.m., at the Musée national des beaux-arts du Québec, salon. Paul-Rainville, Québec. Info: (418) 684-0248, Chantal Dolbec www.fiq.qc.ca/quebec/ You can send us the contact information for your technology activities at Economie@lesoleil.comMonday, March 15, 2004

## ###ARTICLE\_START### ID:203

On July 4, 1971, Michael S. Hart, a student at the University of Illinois, types the American Declaration of Independence with his own hands. With the altruistic and patriotic intention of spreading it in the embryo of the Internet. This is the first stone of Project Gutenberg (1): to digitize as many texts in the public domain as possible to make them freely accessible to the greatest number of people. If other virtual libraries exist, Project Gutenberg remains without a doubt the oldest and best known. In 1994, only 100 books were freely accessible. Ten years later, the counter displays nearly 11,500 works. The virtual shelves are increased by 500 titles each month. Thanks to more than 500 volunteers, who digitize, type by hand or revise the texts. The former student, a colorful 57-year-old man, came to France for the first time on February 12, at the invitation of UNESCO, April (Association for the Promotion and Research in Free Computing) and Aful (French-speaking Association of Linux and Free Software Users). This visionary has not given up and, better, has gained an appetite. He wants to conquer Europe and reach a million books in 10 years. "Eugenie Grandet is the last text published online, and in French," the American was keen to mention. Like Stendhal's Le Rouge et le Noir and Voltaire's Candide. In total, 200 texts are in French. And, in the entire library, 20 different languages. His dream would be to have "the entire public domain in all languages." The main obstacle to this inflation remains copyright, the duration of which tends to lengthen in the United States. This was extended in 1996 to 70 years after the author's death, a law that bars access to 20th century works. For his European project, which will be based in Belgrade from the Ratsko project (2), Michael Hart encourages good souls to participate. Notice to copyists at heart. (1) www.gutenberg.net (2) dp.rastko.net/

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## ###ARTICLE\_START### ID:205

We saw him at Matignon, a little before the 2002 presidential campaign, where a few young PS wolves were looking for original political avenues. In Bombay, in January, with the anti-globalization movement. In Brussels, to try to convince the Information Society Commissioner, Erki Liikanen, that the tightening of copyright legislation would dry up knowledge. Here, we are at UNESCO. He is playing with his sock, precariously balanced on the end of his foot, almost resting on the desk in front of him. It is disturbing: who has lost a hippie on the bench? That is Richard Stallman. "Autistic," says one close friend. "Monomaniac," according to another. "Visionary," agree most of those who have met him. He says he is on a "mission" for free software, the idea of which he launched twenty years ago. Volunteers. Free software? Unlimited copyable programs, whose "source code" (trade secrets) is accessible, but also modifiable. And designed by programmers all over the planet, many of whom are volunteers. The opposite of so-called "proprietary" software, loaded with legal restrictions on use, such as those from Microsoft. The best known free software is Linux, an increasingly popular alternative to Windows from Bill Gates' firm. Richard Matthew Stallman (RMS) has been on a mission for twenty years. Since 1984, the date on which this brilliant programmer resigned from the prestigious Massachusetts Institute of Technology (MIT), finding the increasing restrictions on the free exchange of software and knowledge in his laboratory unbearable. No more laughing, we no longer copy and the era is the Microsoft saga. In response, RMS launched the GNU project, aiming to build an operating system that would be the heart and conductor of any totally free computer. He created the FreeSoftwareFoundation to support this project and invented a tool to legally give life to his intuition: the general public license (GPL), which precisely defines that one can freely copy and modify the program at will. In 1991, a Finnish student, Linus Torvalds, relied on the principles defended by Stallman and provided the missing brick to the GNU project. This would become Linux (GNU/Linux, Stallman insists), today the number one competitor to Microsoft's Windows. Worse than a competitor: a "cancer", said the current boss of Microsoft, Steve Ballmer, one day of inspiration. We understand his annoyance, because the success of free software raises a question that annoys, well beyond IT: what if competition and all-out property ended up slowing down innovation and leading to dead ends? What if cooperation and freedom of access and use were not, in the end, much more beneficial to the balanced development of a globalized planet? That is what Stallman has been saying from the beginning. Free software, according to him, is not a development model or a technical subject for keyboard addicts, but an "ethical and social question". Stubbornness. So many ideas that Stallman expresses in very correct French, inherited from his father. The latter had started to learn the language before being sent to France at the end of the Second World War and taking part in the Battle of the Bulge. Born in 1953 in New York, Richard was already programming at the age of 9, on sheets of paper. His first computer would be at the age of 16. He continued with studies in math and physics at Harvard University. He worked at the neighboring MIT. Then he persisted in his project until he became what he is today, the "permanent global pilgrim of free software", according to the expression of Philippe Aigrain, a former official of the European Commission. "There are few people capable of working for ten years and being taken for a madman, without ever stopping." A little crazy, Stallman still is. But, now, he is listened to. Lately, he is not often at home, in Boston. He debates, pleads, explains. From India to Brazil, from Paris to Costa Rica. He has no children: "I do not want my life to be ruled by the need to earn money to provide for their needs," he says. My mission is the most important thing I can bring to the world, much more than a child." Lately, quite a few people are starting to think so. And not just guys with long hair or fans of scratching feet in public. In early July, Stallman signed, along with, among others, Nobel Prize winner in economics Joseph Stiglitz and lawyer Lawrence Lessig, an open letter to the World Intellectual Property Organization to request a meeting on open and collaborative projects such as the sequencing of the human genome, the Web. And free software.

## ###ARTICLE\_START### ID:206

The City of Paris under Linux? Not yet. But Bertrand Delanoë's team has just commissioned a study from the IT services company Unilog on the installation of free software on the 17,000 PCs used by the city's employees. It was on the basis of a study by the same company that the city of Munich switched its 14,000 microcomputers from Windows to Linux. Advantages: lower cost and more flexible conditions of use. The government also intends to "restore competition" in the choice of software, noting in its plan for electronic administration that their supply "is today overwhelmingly entrusted to a publisher in a dominant position who imposes its views and costs" (meaning Microsoft). Objective: to "migrate" up to 15% of the desktop computers of ministries and central administrations to free software, following the example of other countries, such as South Korea, Israel or India.

## ###ARTICLE\_START### ID:207

Out of habit or lack of curiosity rather than choice, the majority of users are satisfied with the software installed on their computer, such as Word, Internet Explorer or Outlook Express. They are unaware that there are equivalent competing products, sometimes more powerful... and free! These are not "freeware" or "shareware", but free software, developed by communities of independent programmers, and which can be adapted, modified and copied freely. If the phenomenon is mainly known among Linux fans, it is starting to reach Windows and Mac OSX users who can now install versions of these software adapted to their computers. Companies were the first to opt for alternative software. And this, for different reasons. Some refuse to be forced to change software each time a publisher decides to change its file format. Others, noticing no gain in productivity between version 95 of a software and its 2000 version, refuse to follow the race for forced evolution. But above all, most people believe that it is better to know exactly how the software behaves, which is something that only free software allows. They are in fact provided with the listing (or source code) that determines their entire operation, while proprietary software is only distributed in the form of executables. For individuals, the main interest in alternative software is economic. Why, in fact, equip yourself with programs sold between 150 and 1,500 euros when products like OpenOffice.org, The Gimp or Mozilla provide exactly the same functions, if not more? Especially if it is simply a matter of reading attachments from correspondents who, because they use Word and PowerPoint daily at work, imagine that everyone has the same products... The best-known alternative to Microsoft's office products is called OpenOffice.org. Like Microsoft Office, this "suite" is made up of several modules: a word processor, a spreadsheet, a presentation software, a vector drawing program, a mathematical calculation editor, a form editor and a web page editor. Moreover, those familiar with Word, Excel and PowerPoint will not be disoriented by OpenOffice. The resemblance is so perfect that one could speak of cloning: same menus, same functions and perfect file compatibility, whether texts in Word format or PowerPoint presentations. This little marvel works better, it seems, with Windows than with Linux... Another example. Adapted from the legendary Netscape, Mozilla is both a web browser like Internet Explorer, but also an e-mail and forum reading program like Outlook Express, an HTML page editor that has nothing to envy FrontPage, and a small "chat" client. Faster and less susceptible to viruses than its competitors, Mozilla can open different pages in multiple tabs, block pop-up advertising windows, filter unsolicited emails, etc. As for The Gimp, it is nothing more or less than a replica of the famous image editing software Photoshop. Here again, the layout of the menus, the content of the palettes and the choice of functions are, with a few minor details, identical to what the original offers. But its free nature, its adaptation to different types of computers and the power of its programming language make it an ideal production tool for individuals and small businesses. In short, there are lots of alternative software for all sorts of uses. Which proves that despite appearances, the user still has a choice.

## ###ARTICLE\_START### ID:208

The shareware lampshade exists, it was developed by the British. The "free" spirit stemming from the open source culture (publication of software codes to allow their distribution, copying and reproduction), is nibbling away at entire sections of creation. "Opensource furniture", the lampshade of the collective of artists and architects Fat, is protected by the GNU public license, which was used to develop Linux, the most serious competitor of the private giants in the sector, Microsoft in the lead. Fat's initiative is both simple and radical. As simple as a print: you choose your pattern (Dadaist text or pineapple slices) before following the instructions for folding. "Finally you can bring a touch of design into your home for free. As with software, you can improve what you find here", explains Fat. Protecting a physical object under a license designed for immaterial practices is almost proselytism: "I like the idea of distributing design outside of the contingencies of the market, which undermine the relationship between design and luxury boutique designers, exorbitant prices, etc.", explains Sam Jacob, a member of Fat. Until now, artists and lawyers had worked on free licenses specific to creation, such as the LAL (free art license) in France or the Creative Commons in the United States. No one had yet tackled "hard" creations. "The idea of something that appears physically, a small piece of furniture, in the very specific context of the Internet and its flow of ephemeral information, seemed attractive to us," explains Sam Jacob. Fat is not new to this: they have also written a "manual to become a famous designer", the first step of which consists of obtaining old graphic design books (15 years old) to anticipate the hype...

## ###ARTICLE\_START### ID:209

The "free" software EduLinux, from the University of Sherbrooke, continues to grow in popularity. The Carrefour jeunesse-emploi (CJE) LaSalle has just launched its new computer park managed by the EduLinux distribution. The computer park of 45 personal computers at the CJE LaSalle is now managed by EduLinux, a free management platform developed at the University of Sherbrooke. In the space of a weekend, the graphical interfaces of the PCs were replaced and the system administration migrated to Linux, according to a press release from the university. Révolution Linux is a company created by the artisans of EduLinux and the University of Sherbrooke. The software was developed for school boards, college and university students, community organizations and, more broadly, for general public office use. This flagship product is thus installed as a work platform on the workstations of organizations that request the services of Révolution Linux. Révolution Linux is the first open source software service company created in Quebec that produces its own Linux distributions, namely EduLinux for the educational and community world, as well as EduCluster for scientific computing. Thanks to the twenty years of experience in open source software of its founding members and because of the support they have received from the University of Sherbrooke, Révolution Linux is on the way to enabling many institutions and community and school organizations to switch their computer systems to Linux. The Carrefour Jeunesse-Emploi LaSalle is a set of services aimed at young people aged 16 to 35, who live in the county of Marguerite-Bourgeoys. The activities of the CJE LaSalle are carried out in three areas: employment assistance, returning to school and entrepreneurship. The CJE LaSalle team is also involved in various youth service development projects in its community.

## ###ARTICLE\_START### ID:210

Since 1971, Michael Hart has been working on an immense task: digitizing and putting online writings that have fallen into the public domain to make them freely accessible to as many people as possible. Portrait of an enlightened idealist. "Ten years ago, Project Gutenberg had 100 books. Today, there are 11,320 and the last one put online was Eugénie Grandet by Balzac. In 10 years, I hope there will be a million," Michael Hart announced in the preamble and in French to an audience gathered at UNESCO to listen to this 58-year-old American, who had come to France for the first time and had dedicated his life to his project of a universal electronic library. Project Gutenberg was born out of a combination of circumstances. A student at the University of Illinois, Michael Hart was looking for a useful way to use the time he had been allocated on a supercomputer. Figuring that everything entered into the computer could then circulate easily, he types up the American Declaration of Independence and sends it to the handful of people then connected to the network. Then come the American Constitution, the Bible, and the works of Shakespeare (an obvious choice for the son of an academic specializing in the Bard). For the first few hundred works, Michael Hart works alone to convert the texts to the most basic computer format, ASCI, because he is determined that his library will survive the standards that are becoming outdated. "My friends said I was crazy," he says today. "But as soon as I saw the network, when there were only a hundred of us connected, I understood how it would be used in the future," says without false modesty this portly man who holds his audience spellbound for hours with his anecdotes, his diatribes against publishers and his frankness. Over time, a network of volunteers scattered around the world joined Project Gutenberg. A thousand people participate in it in one way or another: some send books to Las Vegas where a collaborator uses a scanner and sophisticated character recognition software to speed up the work, others scan the texts themselves. Each text is proofread by two distributed proofreaders. Finally, about fifteen volunteers are responsible for ensuring one last time that the text is indeed free of copyright before putting it online. The success of Project Gutenberg can certainly be measured by the extent of this disinterested mobilization between perfect strangers. "If everyone scans a page, you realize how many millions of people will then be able to access this work," this evangelist tirelessly exhorts. Because Michael Hart is convinced that he is giving a second life to these works. "I was on the phone with a friend one day and there was a loud noise at her house. It was her son's friends who were huddled on an old armchair in front of the computer reading Alice in Wonderland on Gutenberg. These children, about ten years old, had been coming for several days to continue the story. The chair had broken," Michael Hart proudly recounts. "After Johannes Gutenberg, the literacy rate made a huge leap. If when I die, I can say that I have also helped, I will be happy." But life is not easy for the man who claims to be at war with publishers. "Throughout the 20th century, the duration of copyright has only lengthened in the United States. It takes longer and longer for a book to fall into the public domain," Michael Hart fumes. "Publishers want to make the most of the rights. But I am announcing the new industrial revolution. The paradigm is no longer just "If I have something, you can't have it too." In this new era, everyone can have it without limits and at a very low cost. » It is no coincidence that Michael Hart's visit to France was made with the help of two associations campaigning for free software, April (Association pour la promotion et la recherche en informatique libre) and Aful (Association francophone des utilisateurs de Linux et des logiciellibres). A free spirit, Michael Hart is not officially affiliated with the free software movement, even though Richard Stallman, his best-known spokesperson, is an old acquaintance. "I am anti-political," says Michael Hart, who nevertheless met a group of French MPs during his stay in Paris. The visionary also has an unusual relationship with money. "I am not interested in money. I have simple tastes. When we receive donations, we prefer to buy scanners," explains Michael Hart, who also says that a former friend who became a billionaire paid him a salary for 18 months. Or that a library association he had helped kindly lent him an apartment in Hawaii so that he could escape the cold of Illinois, where he usually lived, for two months each year. "My gain in this story," he assures us, "is that Project Gutenberg benefits others, that we build a better world."

## ###ARTICLE\_START### ID:211

Many educational and higher education institutions are seeing their proprietary software bills weigh heavily on their budgets. Many have had to deal with unexpected increases in the cost of certain licenses. We saw last week that La Magdeleine School in La Prairie had to take the bull by the horns and use imagination to deal with current budgets. The MILLE project is continuing the experience of La Magdeleine School by creating a free-source technology heritage to be passed on to schools and school boards in Quebec. Faced with shrinking budgets, free software is a sensible choice for the world of education. By joining forces and carrying out the MILLE project, three Quebec school boards, the GRICS Society, RESCOL, the Quebec Ministry of Education, the Montmorency College and the CRIM want to assess whether open-source software can be a viable and economically advantageous choice. Reducing costs Aware of this new situation, the MILLE project partners will work to validate whether it is possible to significantly reduce the costs of acquiring and maintaining hardware and software infrastructures, while reducing those related to the development and maintenance of services. The recommended solution: use open-source software and develop an IT platform designed to promote the dissemination of knowledge, cooperative work and support for teaching. Based on these premises, all these partners came together to work on the MILLE project (Modèle d'infrastructure de logiciellibre en éducation), a project that, in its finality, should allow all stakeholders in the school environment to significantly reduce their costs related to the acquisition of software, while allowing the reuse of "obsolete" computer equipment. Concretely, the MILLE project will make it possible to build a complete software infrastructure, from individual workstations to common infrastructures ("middleware") and to offer services accessible to the entire community through a portal using only free software. This is how Louis Fortier, Director of the Development and Technology Transfer team at CRIM, one of the major players in the project, envisions it. Doing things differently "School boards have suffered and are still suffering several budget cuts," says Louis Fortier. However, faced with rising software license costs, the instigator of this great adventure, René Marquis, Director of IT at the Laval School Board, believes it is possible to do things differently and build a software infrastructure based entirely on free software. And above all, to be able to share and develop it with other partners. For example, the issue of deploying Linux, an operating system in French, designed specifically for the world of education, had to be resolved on all workstations, in addition to home computers. The original partners then turned to the creators of the only Quebec distribution, ÉduLinux, a project supported by the Université de Sherbrooke. "This partnership with the ÉduLinux team allows us to acquire knowledge and offer a solution adapted to the Quebec context," explains Louis Fortier. In addition, the creation of such a distribution will extend the life cycle of computers by at least two years, if not more. "We are even working on designing a distribution that will allow computers to be used without any moving parts [hard disk, CD-ROM drive, etc.] to transform them into work terminals." And this is where CRIM's contribution becomes important. In fact, in addition to validating all the stages of the project, CRIM, together with the school boards, will pool expertise on broadband networks in order to validate the solutions developed on high-speed networks in pilot tests. Ultimately, thanks to its infrastructure, the MILLE project should be a major driver for the growth of high-speed networks. But the benefits will not only be material. All stakeholders involved in the education sector will be able to count on an infrastructure that is conducive to addressing the most important issues in the world of education. According to the partners, the MILLE project should promote the following results: - increase the quality and diversity of services and content offered to teachers and students, at a lower cost; - increase access to services for users (teachers, students, parents, managers); - reduce the costs of managing a computer park; - accelerate the implementation of technologies in schools; - promote innovation in the development of educational and teaching support services; - encourage the emergence of a culture of sharing for the pooling of teaching support and educational services; - catalyze the deployment of an industry around free software; - publish articles, in French and English, on technology and its use in schools; - increase awareness of Quebec and Canada regarding the use of IT, particularly for the use of free software in schools. With an initial budget of one million dollars, the partners of the MILLE project nevertheless recommend the contribution of other institutions ready to participate in the realization of this project. Thus, the Montmorency Cégep joined the consortium along the way and will participate in the adaptation of the model to the college context. Second phase So far, the project is going well. The partners have already released a progress report including a complete inventory of all the free software relevant to the project as well as the description of all the useful licenses. The next phase will focus on the deployment of an infrastructure entirely designed in free software. For Louis Fortier, "this phase is essential, even primordial, because it will allow us to validate, on a larger scale, the deployment of a major infrastructure. The observations made by users will allow us to correct the few flaws that may have crept in throughout the project. Once this phase is completed, we will be able to prove beyond any doubt that it is possible and economically viable to deploy a complete infrastructure with free software. Moreover, in collaboration with the Treasury Board, we have mandated a team from the École des Hautes Études Commerciales (HEC) whose mission will be to validate these economic hypotheses and ultimately submit a report." This is how, in the near future, tens of thousands of workstations could migrate to the Linux operating system. In addition, these positions will be enriched with a range of diverse applications, such as office suites and several software tools, all from free software. A formidable challenge for all the partners of the MILLE project, who should thus validate the assertion that it is possible, viable and advantageous to implement a software infrastructure at school based on free software.

## ###ARTICLE\_START### ID:212

Despite the enthusiasm generated by the MILLE project, one of the largest open-source projects in Canada, some problems remain and prevent it from going full steam ahead. According to the MILLE project leaders, almost all of the technology-related problems are a thing of the past. In fact, the project is generating so much interest that a derivative of the MILLE project will soon be launched. Indeed, the SME world is particularly interested in partnering with CRIM to carry out a "MILLE-SME" project. However, to successfully deliver this technological heritage to schools and school boards, the MILLE project partners need, as you might expect, financial resources. However, it seems that after making many detours within several departments and organizations, the requests of the MILLE project partners have fallen on deaf ears. However, the $400,000 missing from the total budget of $1 million is essential to the completion of the project. The experience described last week by the La Magdeleine school proves beyond any doubt that it is possible to do better with less. Knowing that the Ministry of Education is struggling to find budgets to renew the current IT equipment, it is therefore essential that the partners of the MILLE project can see their funding secured. We can only call on the Minister of Education, Pierre Reid, to give the project all the attention it deserves. After all, the MILLE project puts forward what the party in power advocates: reinventing itself.

## ###ARTICLE\_START### ID:213

Berlin special correspondent Berlin, world capital of electronics, was the headline in the music magazine Trax on the cover of its January issue. A multitude of cutting-edge clubs, a plethora of labels and artists, while the international reputation of the Berlin scene is well-established, it is struggling to make its mark on its own airwaves. The radio landscape is divided between commercial jukeboxes and sclerotic public radio stations. "Berlin has a very strong alternative culture, but no means to express it, we've been fighting for years for a free frequency," laments Pit Schultz, media artist. Since February 1 (and until April 30), a temporary radio station is trying to crash the system in order to "reboot it differently". Reboot.fm has been occupying 104.1 UKW for a hundred days, a frequency (paid for with public aid) used for technical tests and which occasionally hosts event radio stations. The goal is to "broadcast music that you don't hear on the radio, to do everything that the radio format prohibits," explains Pit Schultz, one of the seven members of the team. The independent radio station, installed in the premises of the cultural association Bootlab, broadcasts online and on air eighteen hours a day between noon and 6 a.m., cutting-edge music (from hip-hop to sound art), alternative news magazines (indymedia), and offbeat shows. Video games, hacker culture, radio experiments, live concerts, critical shows on music, best of netlabels, streaming festivals on the Nomusic model. "The goal of the game is not to create an underground, elitist niche, but a popular and participatory radio station." All the actors of the scene came to lend a hand to the project, the trendy magazines (De: Bug), the activists of all kinds (Textz.com), the pirate radio TwenFM or Klubradio, which retransmits online the live broadcasts of the Berlin clubs (Maria, WMF, Trésor...). Reboot.fm is not only a radio show but also a development project linked to the Net. "The Net is not just used to broadcast programs online, it is a fantastic tool to develop forms of exchange and collaborative and decentralized production." Reboot.fm is in the process of developing an open source software kit so that other free radios can exist and extend the experience. One of them allows the free exchange of programs between non-commercial radios which can rebroadcast them on the airwaves or on the Net. "The aim is to combine the creativity of the local network with the international network (X-Change in Riga, Netbase in Vienna, InterSpace in Sofia, Resonance FM in London, Radio Oxygen in Tirana...) thanks to new technologies, the possibilities have expanded considerably since the free radios."

## ###ARTICLE\_START### ID:214

With a Ministry of Education struggling to open its purse strings, schools have no choice: they have to do more with much less. Driven by a school board chair, a terrific team and the creators of the Quebec distribution ÉduLinux, the community of La Magdeleine secondary school located in La Prairie in Montérégie, has resolutely taken the Penguin turn, to the great delight of all... including that of the school board's treasurer. What to do when your current IT equipment is outdated, a bit heterogeneous and the budgets only allow for sprinkling? When we know that the $10 million in investments recently announced by Minister Reid will not allow us to refresh the current IT infrastructure, there is only one choice: change your approach to IT to get the most out of every precious dollar spent in this area. For Louis Desjardins, a career typographer who has resolutely embraced the digital shift, a parent and chairman of the board of directors of École LaMagdeleine, there was no question of spending colossal sums to acquire just a few computers, when the needs are so great. A decisive turning point In September 2002, École La Magdeleine acquired 32 Pentium 4 computers, at a cost of $50,000, including licenses. For sensitive souls who wonder why it costs schools so much to acquire this equipment, it should be noted that, in order to remain legal, schools must acquire all the licenses for each software installed on the hard drive. And the acquisition fees for each of the licenses for proprietary software packages can quickly increase the bill. In short, La Magdeleine School was at a turning point: should it jeopardize its budgets by investing in new, shiny machines with the obligation to acquire all the licenses, or should it completely overhaul the current model? A certain article in a certain Devoir about a certain Quebec Linux distribution “created in Quebec” would provide the opportunity for the La Magdeleine School team to meet Richard Marceau, the Dean of the Faculty of Engineering at the University of Sherbrooke, as well as Benoît de Ligniris, Benoît Girardeau and Jean-Michel Dault, all involved in the development and marketing of ÉduLinux. For the ÉduLinux team, La Magdeleine School was exactly what they needed: a technological showcase to establish beyond any doubt that Linux and free software are not only practical and justifiable choices, but also economically viable. Richard Marceau therefore set about explaining to some people who were reluctant during the first meetings the compatibility of free software with proprietary software, the zero purchase cost of free software, the fact of being able to do more with less powerful machines without the user really suffering, the existence of few viruses targeting Linux, the great diversity of services. In addition, by demonstrating that this technology made it possible to make computer equipment profitable over a much longer period, sometimes up to 8 to 9 years, Dean Marceau certainly made a friend of the school administrators and the school board. Skeptics Confused According to Suzie Bergeron, assistant principal and head of IT at the school, "La Magdeleine School was already studying several hypothetical solutions for the renewal of its computer equipment, but none, apart from ÉduLinux, offered so many services at such a low cost. In addition to giving new life to old computers, this solution allowed us to offer all students and school staff a portfolio, new computers and a suite of free software. Something unthinkable just eight months ago." As you might expect, a few skeptics couldn't help but express their... skepticism. With any change that is taking shape, you always have to deal with some resistance. Fortunately, aware of the significant stakes for the school, everyone decided to get involved to make the free software implementation project at La Magdaleine a success, whether they were curious teachers, students who became ambassadors, tinkering and open-minded technicians, motivated volunteers or decision-makers on the school board and IT services. Under the microscope At the Grandes-Seigneuries School Board (CSDGS), needless to say, the experiment was being followed closely. According to Carole Blouin, Deputy Director General of the CSDGS, "we are following with interest the progress of this project, which could have repercussions on all of the school board's services." Indeed, for the school board's ICT coordinator, Gilles Breau, "this project may be the solution to a technological impasse that school boards are currently experiencing." In short, for less than $10,000, including the purchase of two P4 servers, the ÉduLinux team managed to set up two 32-station laboratories using old, second-hand equipment that no one wanted anymore. The hard drives and floppy disk drives were removed from these old machines and these computers (which became terminals) were connected to the two servers. Suddenly, École La Magdeleine found itself with 64 new workstations capable of withstanding the onslaught of just as many students. Let's make a quick comparison: Two servers, 64 computers and free software for $10,000; or 32 computers and commercial software licenses for $50,000. For Benoît de Ligneris of ÉduLinux, "the costs per workstation and per year for a solution such as the one implemented at the Magdeleine school range from $50 to $175, whereas in the traditional model, and with commercial software, this cost is rather in the range of $340 to $700." In addition, such a solution brings more than just a saving of money. Free software makes it possible to offer students and teachers a host of software that they could not previously acquire, due to the high cost of licenses. Huge pressure Some will say that the cost of "Education" licenses is lower than that of so-called "Consumer" products, and they are right. However, knowing that every dollar is already being used wisely (at least, we hope so), even the low cost of proprietary software licenses often puts out of reach of schools products that they cannot acquire. Louis Desjardins also believes that in the long term, the adoption of free software by schools will put enormous pressure on developers to adapt their products. This is true as much for commercial players as for an organization like GRICS, owned by school boards, which develops software for them that runs on Windows. But, he wonders, for how much longer?

## ###ARTICLE\_START### ID:215

The 2,500 people who work or study at La Magdeleine School now have individual access that allows them to find their own personalized work environment, no matter where they are. They have private disk space, the OpenOffice suite (the equivalent of Microsoft Office) and a host of other free software, in addition to, of course, full Internet access. In addition, students can now connect to the school's servers in the evening, at home. File servers have also made floppy disks obsolete. The school has its own Internet server, and the e-mail server is promised for the start of the school year next September. Some workstations will remain dual-headed for a while, meaning they will run both Windows and Linux in dual boot, until the transition is complete and everyone has been able to get used to the new environment. For the Magdeleine team working on this project, the main difficulty was much more the resistance to change than the technology itself. Other computers that, by today's standards, would in fact be obsolete, will soon be installed at La Magdeleine school, after undergoing a facelift. According to Benoît de Ligneris, "this experience clearly shows that free software democratizes information technologies. In doing so, they would allow all students in Quebec to benefit from a computer at school." Furthermore, needless to say, the projects carried out by our school principal, Mario Asselin, whom we talked about last week, are of great interest to the La Magdeleine team. It must be said that the combination of "free software and cybernotebooks" is particularly promising. To be continued...

## ###ARTICLE\_START### ID:216

The crusade against the "piracy" of musical and cinematographic works is the Prozac of the cultural industries in crisis, which invest more in endless legal guerrilla wars than in their urgent adaptation to the digital world. Taking the Internet hostage would be the worst response to this crisis. "Copyright" versus "piracy": too simple! Should we in fact criminalize the practices of millions of Internet users who access music on the network? Why transform their access providers into private sheriffs? How can we learn the lessons of the digital revolution without being accused of abandoning creators, authors, performers? The public debate that is raging is revealing political issues that have been repressed for too long. Where many dreamed of a well-ordered consensus, interests and conflicts are now emerging that the public authorities have not yet learned to regulate. It is therefore urgent to clarify democratic choices. Let's face it: the digital revolution is brutally changing the economic models of the cultural industries. One can imagine the stupor of the copyist monks at the arrival of the printing press... This is the situation of today's majors. First, all economists agree that by changing the chain of creation, production and distribution, technological change is transforming the role, added value and benefit of each, for cinema and even more so for music. For musical works, in fact, digital technologies make possible multiple copies on blank media, storage on portable music players and hard drives, online purchases on platforms or portals, or even, thanks to these, free and legal listening. Tomorrow, the deployment of high-speed networks will extend these upheavals to cinema, of which DVD is only the first step. Then, the practices that are shaking up the music market today and reducing its sales reside in the direct exchange networks of "peer-to-peer" (P2P) music files. These downloads concern millions of Internet users in France and a few hundred million on the global network. Furthermore, where Napster only concerned music files, P2P software allows the downloading of all digital content (video, images, software, games, etc.). These mass uses, whose development is accelerating and which are part of the daily life of millions of Europeans, obey several logics that are not limited to a windfall effect. The consumer is not fooled. He knows or guesses that in the digital universe, the production and distribution chain is changing and that costs are being compressed. He resists the excesses of music marketing and the tightening of rights protection. This is why legal or technical rearguard battles and delaying wars in the face of irresistible developments whose effects we can barely measure yet seem trivial. The latest technical invention lies in locking CDs, making them unreadable for some readers. The latest legal countermeasure takes the form of filibuster amendments to the future law on the digital economy. Without protecting anything, they cause collateral damage: the obligation to monitor and filter distorts the French Internet without providing lasting solutions. However, Internet freedom is not the cult of total gratuity. Let us reaffirm that there is no cultural creation without remuneration for artists. What are the responsibilities of each person, those of citizens, market players and the legislator? First, we must reject the "digital Maginot lines", the improvised tinkering under pressure from particular interests in defiance of the search for a fair and balanced path. To do this, it is imperative to provoke real public choices, without sending millions of Kazaa users back to the catacombs. Then, we must recognize, negotiate and defend a plurality of methods of remuneration and legal regulations. There are many options. Culture in the digital city depends on the credibility of these alternative and already emerging responses for the remuneration of creators. There is no obligation to give up mutualized systems for distributing rights, provided that they are modernized and supported. The private copying levy (on CDs or other digital storage media) has already allowed us to experiment with a new form of distributing rights. The extension of the legal license, to which two societies for the management of the rights of performing artists have joined, goes in the same direction. The adaptation of the commercial offer must emphasize the quality of services and innovation. The first should have been to propose an attractive commercial offer, at a reasonable price, of online music and grafting services onto the content, as the digital economy invites us to do in all sectors. The use of flat-rate remuneration or subscriptions (Canal + has not killed cinema...) contributes to this attractiveness. But everyone sees it, we must go further. By recognizing that new forms of production, even self-production, are constantly developing on the networks, breaking the chain of traditional intermediaries, and even offering some artists the possibility of being better distributed and paid. By recalling that the essential freedom of the artist is also to choose their method of distribution. From now on, the channels are multiple. Cultural diversity will be strengthened. The digital revolution is not only changing the distribution of cultural goods, it is radically transforming the creation and economy of culture as a whole. This effort to build new rules of the game is coupled with a demand that is destined to become our political manifesto: building a coalition of informational public goods. On fronts other than cultural creation (patents, software, medicines or agricultural seeds...), the question of intellectual property and common goods has also become a major political issue. In the digital city, let's recognize a huge place for free access to knowledge, for free and for public content. A significant part of the cultural heritage is already part of it. The free software movement has won its place. Yes, I believe, like Daniel Cohen, that "intellectual property breaks with the model of property tout court". Christian PAUL, PS deputy of Nièvre and president of the Les Temps nouveaux foundation. Latest works published by Christian Paul: Du droit et des libertés sur l'Internet, la Documentation française, 2000, and Vers la cité numérique, Fondation Jean-Jaurès, 2002.

## ###ARTICLE\_START### ID:217

AFTER THE UNITED STATES, France. In the coming weeks, Microsoft will launch an advertising campaign aimed at Linux, one of Windows' rivals in corporate information systems. In France, as is the case in the United States, this advertising will be spread across the IT press and will be relayed by a website featuring comparative studies and customer testimonials explaining their choice to remain loyal to Windows. This unprecedented initiative crystallizes the growing concern that so-called free computing, of which the Linux operating system is the leading representative, is causing at Microsoft. The campaign, entitled "Get the facts", aims to demonstrate that Microsoft solutions are less expensive than their "free" competitors. The exercise seems, a priori, to be a challenge since the operating licenses for free software are free. However, Christophe Aulnette, CEO of Microsoft France, is keen to point out that "things are different when we take into account maintenance and intervention costs, for example, which are much higher in the case of free software." A CREDIBLE ALTERNATIVE "It is true that taking only the licensing costs into account is an aberration, but in terms of figures and studies, we can find contradictory results depending on the situation," explains Frédéric Couchet, head of the Association for the Promotion of Free Computing (April). Our main argument is not only the cost but also the freedom and independence of information systems." Furthermore, beyond the simple questions of budget, the new licensing policy implemented by Microsoft (Le Monde, February 26, 2002) has pushed many of its institutional clients to migrate part of their information systems to Linux. Increasingly, major accounts and public administrations are considering the latter as a credible alternative to Windows. This is evidenced, among other things, by the recently made public plan of China, Japan and South Korea to immediately support the development of an Asian Linux (dubbed "Asianux") as an alternative to Microsoft's flagship product. This situation has pushed the software leader to come out of its relative reserve on the subject of open source. The campaign shows, in any case, that the Redmond giant now considers Linux to be a sufficiently worrying competitor to invest in a communication campaign, conducted simultaneously in the United States, Europe and Asia, where it has already begun. For its part, the other American IT giant, IBM, has already launched major campaigns to popularize and give credibility to Linux, including to the general public. The free operating system is in fact at the heart of Big Blue's strategy, which has largely reoriented its activity around services. These now represent the major part of its turnover, almost as much as the cumulative sales of software and hardware. In its opposition to Linux and open source, Microsoft is not facing a traditional adversary. It must face an economic model based on transparency and free software, where only the services associated with it are a source of income. Fragile, this model, which is the opposite of Microsoft's philosophy, is nevertheless beginning to show itself to be viable. The American RedHat, the main supplier of Linux versions, has been profitable for several years. Its competitor, the French Mandrakesoft, after having been in deficit since its creation in 1999, has announced its first profits. Modest, certainly: 270,000 euros in the first quarter of its 2003-2004 fiscal year for a turnover of 1.42 million euros. IMPORTANT CHANGES "The open source model focuses on services, whereas, for our part, we focus more on intellectual property," explains Mr. Aulnette. We must be careful with an approach that is essentially based on services: today, these can be very easily relocated to India or China..." The campaign launched by the Redmond giant also coincides with significant changes in the open source universe. The recent acquisition of Suse, one of the main Linux suppliers, by the American company Novell should help to establish this alternative IT. Finally, for the first time in its history, Microsoft will launch an institutional campaign in France (television, press, billboards and cinema) on Wednesday, February 4.

## ###ARTICLE\_START### ID:218

This is the virus that comes in from the cold. To the credit of MyDoom, detected for the first time in Russia a week ago, between 600,000 and a million computers contaminated according to estimates, the blocking of a software publisher's website since Sunday and, its designers hope, the attack planned today against the site of Microsoft, the software giant. According to computer virology experts always quick to inflate this type of phenomenon, MyDoom is at the origin of the largest contamination in the history of computing. However, it does not innovate in any way and only "mixes" most of the characteristics of its predecessors. Overview of the damage and ways to protect yourself in five questions. How does MyDoom spread? MyDoom relies on email. The whole goal of its designers is to make people click on an attachment. "If MyDoom spread so quickly, it's not because of its technical design, but because its authors came up with words for the subject of the message and texts that encouraged users to click on the attachment," explains François Paget, an antivirus researcher at Network Associates. For example, a truncated message with the encouragement (in English) to read it as an attachment. The user clicks, and all MyDoom has to do is plunder their address book and spread to their usual email contacts. Another way of contamination: MyDoom can disguise itself as a file to be downloaded from peer-to-peer exchange systems (notably Kazaa). How widespread is it? 600,000 machines infected? A million? Estimates abound, mainly from antivirus software publishers. However, in the sector, everyone has a clear tendency to dramatize the situation to promote their products. "I don't really see how we can establish such counts," says Olivier Aichelbaum, head of the highly qualified, specialist monthly magazine, Le Virus informatique. The estimates, based on surveys on the networks, should therefore be considered with caution. Furthermore, MyDoom, by clogging up mailboxes with automatic alerts, distorts the counts. "On my personal machine, I received fifteen alerts but only one copy of the virus," says Pascal Lointier, president of Clusif (French Information Systems Security Club). What does it do? MyDoom has two essential activities. Once it has made itself comfortable, it creates a "back door" on the infected computer, a sort of secret passage that will allow it to bring in other virus friends or carry out activities without the user's knowledge. Second activity: organizing attacks on websites. MyDoom is programmed to connect on a given day and time. All infected computers acting in concert, the targeted site ends up saturated. This is what happened on Sunday to the SCO company, which has the characteristic of claiming intellectual property rights over the Unix system (a software used by corporate networks). A little brother of MyDoom (MyDoom. B) is programmed to launch an attack against Microsoft today, but it is spreading much less quickly than its elder. How to protect yourself and get rid of it? To protect yourself, nothing could be simpler: do not click on an attachment without checking its origin. And use file exchange systems with caution. To get rid of it, you can download a small software program from the sites of antivirus publishers Network Associates, F-Secure (1). Who designed it? "It is not possible to know from the virus the intentions of the person who programmed it," observes Paul-André Pays, head of the IT security company Edelweb. No certain answer, therefore, to date. Two hypotheses dominate. The first, rather angelic: MyDoom would be the work of defenders of free software against the private interests of IT. Hence its attack on SCO, and its hostility towards Microsoft. But "the attack on SCO could be a pretext" hiding less laudable intentions, imagines Paul-André Pays. Those of spam professionals, these unwanted messages that clutter e-mail boxes. "MyDoom slips small e-mail sending engines into computers. Suddenly, hundreds of thousands of machines can be used as relays for sending spam." (1) www.nai.com or www.f-secure.com

## ###ARTICLE\_START### ID:219

The Mydoom computer virus managed to neutralize the Internet site of the American software publisher SCO yesterday. "A large-scale attack aimed at blocking access to the site has begun, making the site www.sco.com completely inaccessible," the company announced. SCO, owner of the Unix system, specifies that, during the night from Saturday to Sunday (6 a.m. in France yesterday), the site was flooded with requests, beyond its capacities. A massive attack caused by the computer virus that is said to have infected more than 1 million computers worldwide. The attack is expected to continue and perhaps intensify today, with the return to the office of millions of employees. Detected on January 26, Mydoom.A, the first version of the virus, was programmed to launch its offensive on the site www.sco.com on Sunday. Some see in this assault the signature of members of the Linux community, which defends access to free software. Indeed, the SCO company has attracted the wrath of open source supporters by claiming intellectual property rights over the Unix system. Another computer publisher hated by the Linux community could also be the victim of Mydoom: the world's number one software company, Microsoft, is in fact targeted by a variant of Mydoom, called Mydoom.B, designed for a similar attack starting tomorrow, while relaying the one against SCO. But the instigators of versions A and B of Mydoom could have other ambitions. According to some experts, the attack on the SCO site could be nothing more than a smokescreen intended to camouflage the actions of criminal organizations wishing to take remote control of computers to distribute spam, unsolicited advertising mail, or intercept banking codes. A signature was discovered in the code of Mydoom.B. The designer or distributor identifies himself as "Andy" and writes: "Just doing my job, nothing personal, sorry." The message, however, is of no help in tracing the creators of Mydoom. SCO and Microsoft have offered a $500,000 reward for identifying the authors of the virus, which has already caused considerable economic losses due to slow transmission times and network overload. With AFP

## ###ARTICLE\_START### ID:220

The promises of rewards have not changed anything, nor has the investigation launched by the FBI. The Mydoom computer virus achieved its goal yesterday: to paralyze the website of the American company SCO. This software publisher listed on the Nasdaq had promised $250,000 to anyone who could identify the creator(s) of the virus. Microsoft, whose site could be the target of a similar attack tomorrow, is offering a reward of the same amount. The SCO attack was scheduled for 16:09 GMT yesterday, or 17:09 in France: each infected computer was then supposed to connect every second to the address www.sco.com. Enough to "crash" the site by saturating it completely. In fact, since the clocks of many computers were not set correctly, traffic increased from Saturday night to Sunday to the SCO site, which became inaccessible Sunday at dawn. To carry out this offensive, the designers of Mydoom created a "worm" type virus, capable of spreading itself from one computer to another. A classic, except that in this case this virus had only one goal: to recruit hundreds of thousands of Internet users, perhaps millions, according to computer security experts who had become, in spite of themselves, the soldiers of a virtual world army. Never before had a spread of this magnitude been observed by professionals. Hence their concern at the idea that this type of attack might happen again. Many "innocent" Internet users have in fact involuntarily activated Mydoom, clicking on the attachment of an email with an innocuous title, such as "Error", "Hi" or "Test". By this simple gesture, they allowed the virus to install itself on their computer and continue its expansion, by opening their entire address book to it. Mydoom was detected last Monday. "More than 40% of Internet traffic now consists of infected emails," Mikko Hyppoenen, research director at antivirus software publisher F-Secure, said on Thursday evening. For several months, SCO has been the subject of virulent criticism from part of the IT community. It is suing for rights to certain versions of the Linux program, which allegedly contain code copied from its own system, Unix. Linux is an operating system, the program that "runs" computers competing with Microsoft's Windows. It is free software, meaning that anyone can obtain the code, copy it, modify it, or even market a version of it, all for free. SCO is notably claiming $50 billion from the world's leading computer manufacturer, IBM, accusing it of stealing elements of Unix to include them in its version of Linux. The attack it is currently the target of could be revenge by defenders of free software, whose bête noire is usually... Microsoft. Another hypothesis: rather than an "ideological" weapon, Mydoom, which apparently spread from Russia, could be a tool at the service of a mafia group. Of course, the worm does not seem to damage the computers on which it is installed. But it demonstrates that it is possible to remotely access thousands of computers and make them execute orders without their owner's knowledge. We can imagine collecting email addresses in this way to resell them to companies wishing to send advertising messages (spam) or recover personal data, such as credit card numbers.

## ###ARTICLE\_START### ID:221

Washington - The MyDoom computer virus has already infected more than a million computers and appeared to have succeeded yesterday in one of its goals by neutralizing the American software publisher SCO, which nevertheless expected to be able to remedy the problem this morning. "We estimate the total number of infected computers at more than a million," the Finnish computer security company F-Secure said yesterday, adding: "This is the largest denial of service attack of all time." Version A of the worm was supposed to launch an attack on the site of the American software publisher SCO (sco.com) yesterday at 11:09 a.m. Montreal time. "A large-scale attack aimed at preventing access to the site has begun, rendering the site completely inaccessible," SCO announced yesterday in a statement. According to SCO, the site was flooded with requests during the night from Saturday to yesterday, before the announced deadline. For Eirik Amundsen, of the Norwegian company Norman, this is explained by the internal clocks of thousands or tens of thousands of computers being set a few hours ahead of the real time. In concrete terms, hundreds of thousands of computers are trying to connect to the site simultaneously, causing it to saturate and go out of service. In front of their computer screens, users do not notice anything. The company operating the UNIX system specifies that around midnight on the night of Saturday to yesterday, the site was flooded with requests, beyond its capacity. "It is less of a handicap than an annoyance," a spokesman for SCO, Blake Stowell, told AFP. "We believe that with what we have prepared, we will be in the saddle in the United States from the beginning of the day (today)," at 8 a.m., he added. SCO's director of global IT infrastructure, Jeff Carlon, said in a statement: "We have various plans to respond to this issue and we will begin to communicate those this morning." Minimal damage Stowell downplayed the damage caused by the site's shutdown, saying that on weekends, it gets very few visitors anyway. "You have to keep in mind that it's Sunday, it's the Super Bowl (the American football championship game), and there are a lot more people watching TV than there are who want to log on to sco.com," he added. The site, he said, is primarily a source of information for SCO's approximately 11,000 software vendors worldwide, customers and shareholders. Stowell said the shutdown does not cripple transactions with the company, which are still conducted normally by e-mail or other means of communication. MyDoom.A, the first version of the virus, detected on January 26, is scheduled to be deactivated on February 12. MyDoom.B should become inactive on March 1. The virus contains a flaw in its deactivation code that means its action will be "indefinite," warned Marc Blanchard, director of the research laboratory of the antivirus editor Kaspersky, yesterday. "As long as a computer in the world is infected, the requests will not stop," he stressed. SCO, the holder of intellectual property rights to the UNIX system, is engaged in a legal battle to protect its commercial activity in the face of growing competition from the free software Linux, so much so that it has been taken against by several followers of the latter. The designers and distributors of MyDoom.A and MyDoom.B have still not been identified, even though SCO and Microsoft have offered a reward of $500,000. The first infected emails were reportedly sent in Russia.

## ###ARTICLE\_START### ID:222

Washington - The Mydoom computer virus has already infected more than a million computers and appears to have succeeded yesterday in one of its goals by neutralizing the American software publisher SCO, which had nevertheless expected to be able to remedy the problem this morning. "We estimate the total number of infected computers at more than a million," Finnish computer security company F-Secure said yesterday, adding: "this is the largest 'denial of service' attack of all time." Version A of the worm was to launch an attack against the website of the American software publisher SCO (www.sco.com) yesterday at 16:09 GMT. "A large-scale attack aimed at blocking access to the site has begun, rendering the site www.sco.com completely inaccessible," SCO announced yesterday in a statement. According to SCO, the site was flooded with requests during the night from Saturday to Sunday, before the announced deadline. For Eirik Amundsen, from the Norwegian company Norman, this is explained by the internal clocks of thousands or tens of thousands of computers being set a few hours ahead of the real time. In concrete terms, hundreds of thousands of computers are trying to connect to the site simultaneously, causing it to become saturated and go out of service. In front of their computer screens, users do not notice anything. The company operating the UNIX operating system specifies that around midnight on the night of Saturday to Sunday (5am GMT yesterday) the site was flooded with requests, beyond its capacity. "It is less of a handicap than an annoyance," a spokesperson for SCO, Blake Stowell, told AFP. "We believe that with what we have prepared, we will be operational in the United States from the beginning of the day on Monday," at 8am (1pm GMT), he added. SCO's director of global IT infrastructure, Jeff Carlon, said in a statement: "We have a series of plans to respond to this issue and we will begin communicating those plans Monday morning." Damage Stowell downplayed the damage caused by the site's shutdown, saying that "on weekends we have very few visitors anyway." "You have to keep in mind that it's Sunday, it's the Superbowl [the American football championship game], and there are a lot more people watching TV than there are who want to log on to sco.com," he added. The site, he said, is primarily a source of information for SCO's approximately 11,000 software vendors worldwide, customers and shareholders. Stowell said the shutdown does not cripple transactions with the company, which are still conducted normally by e-mail or other means of communication. Mydoom.A, the first version of the virus detected on Monday, January 26, is scheduled to be deactivated on February 12. Mydoom B should be deactivated on March 1. The virus contains a flaw in its deactivation code that means its action will be "indefinite," warned Marc Blanchard, director of the research laboratory of the antivirus publisher Kaspersky, yesterday. "As long as a computer in the world is infected, the requests will not stop," he stressed. SCO, the holder of intellectual property rights to the Unix system, is engaged in a legal battle to protect its commercial activity in the face of growing competition from the free software Linux, which has earned it many enemies among the latter's followers. The designers and distributors of Mydoom A and B have still not been identified, despite a $500,000 reward offered by SCO and Microsoft. The first infected emails were observed in Russia.

## ###ARTICLE\_START### ID:223

They are between 10 and 20 years old, they were born into a digital world, they resonate more than they reason, they are unrepentant consumers who run on brands, they are multitaskers and do not hesitate to question several foundations of our society, even if it means shaking up well-established industries, such as the cultural sector: here come the "Digital Kids". In a recent interview, author and observer of new technology trends, Jim Carroll said that "it's not tomorrow that he will go to bed with his laptop to read his newspaper" or that he will stop printing everything that seems relevant to him. However, for the "digital kids", nothing could be more normal. You think you know them well, and yet. The D-Kids do not live in the same world as you. Since their birth, these children of the digital age have been immersed in screen images, sound, video, remote controls and mice. Their world doesn't just revolve around computers. Their world is that of interactivity found in consumer electronics, which includes devices such as Xbox and Playstation game consoles, computers, cell phones and iPod-type digital players. Their world is that of network culture and the Internet. Divide For us parents, who come from the world of television and are only immigrants in this digital world, there is an obvious divide here. While we value values such as respect for privacy, the D-Kids do not hesitate to reveal everything about themselves in the various social networks that abound on the Internet. For them, what could be more normal than communicating by personal messaging with a friend located on the other side of the street... or the planet. For Michel Cartier, professor of communications at UQAM, the emergence of this network culture among these children even has positive aspects. According to Cartier, it is fascinating to see that these "D-Kids" have a much more homogeneous culture than their parents. Indeed, for these trendy children, the differences that could exist between city children or country children, rich children or children from modest backgrounds, are flattened. Only one language reigns supreme, only one universe, that of digital culture. "Are you trendy or not?" Their favorite subjects are diverse, and for them linear thinking as we conceive it is an incongruity that they reject en bloc. Constantly on the move, totally trendy, they are the generation of the clip and zip, of rap and zap! They will have 50 jobs in 50 different fields during their lives, and their friends, multiple, come and go to the rhythm of the networks they frequent. Multitaskers, they never stop touching on everything, and their creativity is limitless. Rejection of Values Their ideas are clear-cut, and they reject our values wholesale, just as we rejected those of the priests. While the world of culture sees the Internet as a threat, for them, on the contrary, it is a wonderful opportunity to make themselves known and to disseminate their creations. Unlike us, the "Digital Kids" have instinctively understood that these tools and networks are wonderful ways to create and innovate. Give them the tools, and they will find a way to show their teachers. Prevent them from using these tools, as the RIAA does by pursuing these young people who use P2P exchange networks, and they will create their own inaccessible parallel networks where only those who speak the same language will be allowed to enter them. Consumers of trendy objects, these young people would not hesitate for a second if they could download a pair of running shoes for free instead of buying them. However, the D-Kids also have magnificent values. These are the children of Kyoto, those who will have to repair our mistakes, and they know it only too well. Alter-globalists at heart, networks are for them a means to fight against globalization. They are probably the ones who will realize Bucky Fuller's great dream. They have in hand the tools that will allow them to decipher and realize the directives left in the instruction manual of the spaceship Earth. In politics The Digital Kids are those who believed in and campaigned for Howard Dean. Just as television changed the way politics was done in 1960, during the Nixon-Kennedy debate, the D-Kids have just shown us in a striking way that politics will no longer be the same. In politics, there are now pre- and post-Howard Dean periods, whether he is elected or not. It is also thanks to them that movements such as free software, knowledge sharing and resource pooling will reach their full maturity in the coming years. In short, to understand, join the D-Kids and engage in dialogue with them, there is only one choice: to be connected in turn, to apply for immigration to the digital country, and to make your own the concepts of the "digital hub" so dear to the president of Apple. Moreover, it is fascinating to observe this commercial strategy of Apple. While Bill Gates continues to speak and create according to the needs of the elderly, the decision-makers of today, Steve Jobs wipes the slate clean and speaks directly to the D-Kids, knowing that they will one day be his customers, the decision-makers of tomorrow. So, do you want to get to know the "Digital Kids"? You would be wrong not to, knowing that they will be the leaders of tomorrow.

## ###ARTICLE\_START### ID:224

The software economy is unique and paradoxical, explains François Horn, a specialist in computer economics (L'Economie du logiciel, La Découverte, Repères collection). Although essential, they nevertheless arouse user discontent: their high technology does not protect them from defects. Another paradox: software is produced by both large companies and myriads of small ones, while computer scientists strive to distribute free software, such as "Linux", which disrupts the market. This is where the author believes that public authorities have a role: to support the development of free software considered beneficial for the entire economy of these systems.

## ###ARTICLE\_START### ID:225

Paris - Computer security experts and government agencies such as the FBI were busy yesterday tracking down the authors of the Mydoom virus, whose spread seemed to be stabilizing in anticipation of the attacks planned for this weekend against the SCO and Microsoft websites. As a sign of their concern, but also of their helplessness, the two American software publishers SCO and Microsoft announced that they were each offering a reward of $250,000 for any information leading to the arrest and conviction of the author(s) of the worm. According to experts from the antivirus company Kaspersky Labs, the worm could be of Russian origin, although they cannot rule out the possibility that this was a diversionary tactic, as the authors may have registered their email in Russia while acting from another country. "The first emails infected with the virus were in Russia, which suggests that Mydoom originated there, although this is not yet certain," said Alexander Gostiev, an expert at Kaspersky Labs, echoing a finding already made by MessageLabs. Nearly five days after it began spreading, Mydoom was still wreaking havoc on email inboxes, but its effects seemed to be at least stabilizing. Some 500,000 to 600,000 machines were infected by Mydoom A, the original version of the worm, while Mydoom B did not spread at all. For Mikko Hyppoenen, an antivirus researcher at F-Secure, "the virus is still spreading at the same speed as in previous days, which we find quite surprising." "It's not showing signs of decline, but it's not growing either," he added, noting that Asia appears to be the hardest hit area of late because of the region's Internet service providers' lesser efforts to filter emails than in Europe. The test The next test will be the Mydoom A attack scheduled to begin Sunday against SCO's site, according to Mr. Paget. Microsoft's site appears to be safe since it was targeted by Mydoom B. "SCO has had time to protect itself, but we can imagine that a hundred thousand of the 500,000 to 600,000 machines affected are still infected and could disrupt the company's website," according to Mr. Saget. SCO, which owns intellectual property rights to the Unix system, is engaged in a legal battle to protect its business in the face of growing competition from the free software Linux, which has earned it many enemies among Linux fans. But, for the Network Associates specialist, "it's the tree that hides the forest" and "the real goal of the authors of the virus is the diffusion of back doors" which allow to take control of the computer remotely and carry out malicious acts, such as the diffusion of spam. Against Microsoft The American software publisher SCO, unknown to the general public, is the designated target of the Mydoom virus, because hackers see it as an instrument in the hands of Microsoft to consolidate its domination over the computer world. In the high-tech world, SCO has definitively emerged from anonymity by filing a complaint in June 2003 against the world leader in IT IBM, accusing it of violating its intellectual property by using software derived directly from the Unix system. SCO holds the rights to this operating system equipping professional hardware (servers). And the group says it has observed on "several occasions" that Unix codes have been used by Linux programmers, the software that Microsoft fears competition from because it is freely available, unlike Windows. The elucidation of the Mydoom viral attack would therefore lie in the answer to a double question: is SCO, which is chasing Linux distributors, acting on behalf of Microsoft? And if this hypothesis is accepted, is Mydoom the result of an unprecedented outburst against the monopolistic aims of Bill Gates' group? "It's the multi-million dollar question, but everyone is thinking about it," says Shlomo Touboul, CEO of Finjan Software, an antivirus software publisher. "It looks a lot like an act of protest," he adds, and the SCO-Microsoft assimilation is "perceptible" in the fact that the initial version of the virus and its Mydoom B variant successively attacked each of the two companies.

## ###ARTICLE\_START### ID:226

Helsinki - The MyDoom.A computer virus is likely to do what it appears to have been programmed to do: crash the website of U.S. software maker SCO, experts say. MyDoom.A was programmed to bombard the publisher's website with requests from infected computers, causing the site to overheat and crash. "There will be a big attack on Sunday (tomorrow) against www.sco.com, which will be hit hard. We expect the site to crash," said Mikko Hyppoenen, head of the antivirus division of Finnish computer security firm F-Secure. SCO, which owns the intellectual property rights to the Unix operating system, is engaged in a legal battle to protect its business against growing competition from the open-source software Linux, making it a number of enemies among Linux fans. On the other hand, Microsoft's site seems safe for the moment since it is targeted by version B of MyDoom, which almost disappeared from the network yesterday, probably due to a manufacturing defect. SCO and Microsoft have announced that they are each offering a reward of $250,000 for any information leading to the arrest and conviction of the author(s) of the worm. According to François Paget, of Network Associates, "SCO has had time to protect itself, but we imagine that a hundred thousand machines out of the 500,000 to 600,000 affected are still infected and could disrupt the company's website." But, for the Network Associates specialist, "it's the tree that hides the forest" and "the real goal of the authors of the virus is the distribution of backdoors", which allow them to take control of the computer remotely and carry out malicious acts, such as distributing spam. According to experts from the antivirus company Kaspersky Labs, the worm may be of Russian origin, although it cannot be ruled out that it is a diversion, as the authors may have registered their email in Russia while acting from another country.

## ###ARTICLE\_START### ID:227

Rotterdam Special Envoy On February 28, 1993, the FBI began a siege on a farm in Waco, Texas, where the Davidians, an apocalyptic sect led by David Koresh, were holed up. The operation turned tragic: on April 19, during the final assault, 80 followers died in a fire. Whether it was a mass suicide or a blunder by federal agents, the question remained. As part of Exploding Cinema, the experimental section of the Rotterdam Film Festival that this year explores the relationship between power and gaming (1), visitors were invited to play the role of the resurrected guru in a new kind of game. Waco Resurrection is the first chapter in Endgames, a series of 3D multiplayer games inspired by apocalyptic moments, developed by c-level, a group of media artists and filmmakers from Los Angeles. "The trend in games is to escape reality by creating fictional, fanciful worlds," explains artist Eddo Stern (see opposite), designer of the game. "Waco Resurrection tries to incorporate real elements, to offer a kind of subjective documentary," adds Brody Condon, who has already distinguished himself in this field. It was as part of one of his courses that students created the highly controversial 9-11 Survivor. The player embodied a character trapped in a burning tower. The only way out: jump. This was followed by an ultra-realistic reconstruction of the fall into the void. The online demo was removed following an avalanche of insulting and threatening emails. "It was not a game about September 11," he defends himself, "but the way in which young Californians, who have only seen the event on television, confront these violent images." Aura. Presented as an installation for three players, Waco Resurrection, currently in development, only lasts ten minutes. Players must put on a full-face Koresh mask, in order to be physically and virtually in his head, then launch the game by saying into the microphone "I am David Koresh". The goal of the operation: stay alive as long as possible (even if the end is inevitable), convert as many federal agents as possible (thanks to religious songs, contained in the bibles that fall from the sky), kill the other Koreshes and increase his aura. "The goal is to try to recreate the state of mind in which Koresh was, leading a divine battle against the government crusade. Create empathy and perhaps a beginning of understanding of the character", suggests Eddo Stern. The players evolve in the cacophony, the psy-ops sent by the agents buzz in the plastic head, mixed with the voice of God, the clamors of the battle. Particular attention is paid to the sound, "these are the real songs of Koresh," explains sound designer Michael Wilson, "that's what makes the link with the real facts." Recently, c-level were contacted by a famous Davidian, Ron Cole. "He wasn't in Waco, but after the siege, he thought he was the new Koresh, thought he had a mission and ended up in prison. He's very interested in the project and promised new audio documents." Waco Resurrection denies being just a diversion, a critical commentary, even if its authors recognize that the game is a response to the climate maintained by the Bush government. "We don't want it to be boring, we want to make a valid game." The same concern on the other side of the Pacific with the Escape from Woomera (EFW) project, led by a team of Australian artists, activists, documentary makers, and game designers. The game, a prototype of which was presented in Rotterdam, addresses the situation of asylum seekers in Australia, detained in isolated centres where no one has access, including Woomera, which closed its doors last April. This escape game is similar in format to Escape from Alcatraz, you have to collect information, objects, be smarter than the guards, organize collective actions to "free yourself from this abusive detention". The game is based on ethnographic studies, independent reports, interviews with detainees, guards... Criticisms. "Games are often built around a crisis situation, the difference is that the crisis that EFW represents is real, explains Julian Oliver, media theorist and founding member of EFW. EFW allows the public to put themselves in the shoes of a refugee and become aware of the way in which the government violates the fundamental rights of asylum seekers." The project has hit home, provoking the ire of the Minister of Immigration, who accuses it of encouraging players to break the law. Others accuse it of trivializing the plight of refugees. Criticisms rejected by the manager. "Gaming is an excellent medium for dealing with political issues." More effective, according to him, than a filmed documentary that requires authorizations, and is therefore necessarily biased. "Gaming allows you to experience the reality of refugees in a subjective way. By putting the player in this hellish world, we transmit the painful experience of detention and frustration." For the needs of the game, the creators are developing an open-source game engine that they will make available to other organizations wishing to make this type of documentary. "Games are not considered a valid medium for talking about serious content," regrets Julian, "because they have been, for years, a product of the entertainment industry. Independent game producers are overcoming this prejudice by operating outside the mass entertainment industry." The industry has certainly produced commercial titles based on current events and with great realism, such as Operation Flashpoint, but with a view to pure release. "These "CNN Games", Julian believes, will ironically pave the way for documentaries like Waco or EFW, because the player has become accustomed to confronting political content. We hope to exploit this but for other purposes, by educating the player and instilling a critical eye." (1) the weblog created for the occasion: http://pzwart2.wdka.hro.nl /~fsnelting/play

## ###ARTICLE\_START### ID:228

Alert on the global network. Appearing in Russia, the Mydoom virus is on the verge of causing the most significant viral attack to date (Libération on Thursday). According to the Finnish computer security company F-Secure, it attacked in just 36 hours "20% to 30% of all global email traffic", or 100 million messages and a fleet of 500,000 to 600,000 computers worldwide. And panic rose a notch yesterday with the appearance of a potentially more destructive "Mydoom. B" which is ultimately much less virulent than its predecessor. Very well thought out according to experts, this "worm" type virus spreads through email in the form of an attached file but also via the Kazaa file exchange system and actually has several levels. "It doesn't just infect machines", explains François Paget, antivirus specialist. Mydoom installs what is called a "backdoor" that will then allow remote access to individuals' computers, and it is programmed to attack the site of the American computer company SCO, owner of the Unix system, starting on Sunday." Highly criticized in free software circles, SCO is currently trying to assert its intellectual property rights in the American courts over certain elements of the free Linux operating system, which it says are derived from Unix. This hostility towards SCO, which has promised to pay $250,000 for any information leading to the arrest of the authors of Mydoom, would explain why the company is the target of the attack, like Microsoft, another enemy of the pro-Linux. A political motivation that François Paget does not share, for whom the primary goal of Mydoom remains, "like the majority of viruses that have appeared recently," the lure of profit: "Through the backdoors, it is possible to recover confidential information such as credit card numbers and to collect new addresses for spammers. This is the main goal pursued by the authors of these viruses." Access codes to e-commerce services such as the eBay auction site or the Paypal bank transfer system are said to be highly sought after by hackers. "We will have to wait a few months to measure the success of this type of virus, depending on the level of fraud activity on the Internet," concludes the researcher.

## ###ARTICLE\_START### ID:229

Mario Asselin is a school principal like I would have liked to have. Open as a standard, free as software, he is one of those characters in the world of education who fascinate and who cannot help but stimulate the desire to learn in those around him. Other than by telephone, and sending a few emails, I do not know Mario Asselin. When he sent me his photo to illustrate this interview, I was finally able to put a face for the first time to the person whose thoughts and achievements I enjoy reading. In short, it was essential for me to know the motivations and dreams of this private school principal, the Institut Saint-Joseph de Québec, and to learn a little more about the school and NTIC, knowing that these said NTIC are at the heart of a fascinating learning project, cyberportfolios. For a layman or a parent, the concept of cyberportfolios is something new. How would you describe this project implemented at your institution? Cyberportfolios are publication spaces that provide students and teachers with a medium that can promote reflective analysis and support the formation of a learning community that extends beyond the school walls. They consist of publication spaces that are the result of an assembly of three notebooks intended for each student and each teacher, a dashboard that allows teachers to easily interact with students, and a bank of educational support tools designed to facilitate teachers' interventions with students. Thanks to the tools, we experience learning activities that leave traces and lend themselves to reflection; in addition to helping students publish the fruits of their efforts, we encourage questioning, conversation, and sharing. Several of these tools are only visible and accessible to parents, students, and staff members. Everything is developed in open source code because we benefit from improvements made by previous developers. Where did the idea for cyberportfolios come from? From two observations that we made while observing students in our appropriation of the reform: - students do not all learn the same things at the same time; - teachers can no longer act as if they had a monopoly on knowledge. I looked for a publication tool that could represent a "good container" to extend our experiences of using paper portfolios that began in preschool. My own reflective analysis, combined with those encountered by other people (Edublogger, Quebec and French notebook makers), allowed me to choose a particular tool. Our successes in the successful implementation of paper portfolios were an important premise, but the results of the digital portfolio exceed what is achieved by paper because of the lever of web publication and that of conversation. What is the inspiration? The desire to make young people become knowledge seekers rather than constantly "pulling" them to drink our knowledge. My goal was to make them thirsty to learn. Its medium and long-term mission? To enable the exercise of pedagogical differentiation. The goal is to better teach writing, reading, and counting, in a context of authentic situations where not everyone necessarily does the same thing at the same time. We want to allow students to learn through contact with real tasks, real projects, authentic conflicts, and real problem solving. Thanks to archiving, we can easily consult all the instruments over a given period. All of this will end up forming a personal and collective "heritage" of learning and traces of learning. We also hope to develop the act of writing as a way of being, the action of reading to better develop and learn to learn, reason to better understand and make connections with what I already know. Keeping a cyberportfolio is almost therapeutic to the limit; it is naming, collecting, building, remembering, searching... and sometimes finding! How do students react to this project? The most spectacular lever is on the side of motivation to read, write and learn. Less discipline and more learning. We also have the impression of knowing our students better in addition to showing them how to cook rather than feed and that is very rewarding for students and teachers. The fact that these people get involved in what is happening at school and in the classroom, through external contributions, impresses the young people a lot who take their role very seriously since they are not obliged to do that... Then, there are the "gains" in terms of creativity, ethics, method, knowing oneself (in short the famous transversal skills) not to mention the skills to use the Web, computers, peripherals, software and publishing tools. Already, young people are doing things that we did not think they would do for months. And we are just asking to be surprised. Is this project reserved for an elite, knowing that you had to invest in the purchase of laptops for each of the students? Furthermore, is it possible to carry out such a project in public schools, when we know that new resources are almost non-existent? The learning profile needed to find oneself in a certain "comfort zone" with this approach is not found in an intellectual elite of well-off young people. Computers are rented and cost much less than smoking regularly ;-). What's more, we help those who need it in the form of scholarships. Finally, if there is a common trait between the parents who have chosen this project, it is to closely monitor their children's learning and to value intellectual curiosity. I am sure that such a project can be easily carried out in the public sector, especially with regard to young people and parents. However, I have doubts about the organization of the work and the type of management recommended, but I imagine that with a little goodwill and collaboration, we must end up being able to! In terms of ICT organization, we must believe in the potential of free software, take the risk that young people will publish with their faults and imperfections, but above all, be convinced that they are learning, so that surprising things will happen and that we have the skills to deal with them within the school's learning community. \*\*\* Mario Asselin has just had a wonderful experience participating in the recent Autrans meetings in France. In addition, he is fully involved in organizing RIMA 2004, the International Meetings of Learning Multimedia, which will be held shortly in Quebec City. On these meetings, on his vision of the available tools and their evolution, on the appropriation of NTIC by teachers and students, Mario Asselin is an inexhaustible flow. Although the lack of space prevents us from delivering all his thoughts, you can read the entire discussion on the author's Web notebook, while leaving your comments. Technology, and then... Many teachers, parents, and even students are disappointed by the use of computers and the Internet in schools. The Marois Plan has allowed schools to stock up on technology, but what about the training, content, and techniques that allow everyone to effectively use technology? These are tricky questions that our connected director does not hesitate to answer. It seems that the use of NTIC in schools has been the cause of many disappointments. In your experience, what are the reasons for this? We have given too much space to machines and not enough to humans. Too little pedagogy and too much technology. For ICT to take hold, it must create meaning for those who teach and for those requesting services (parents for toddlers and students and parents in secondary school, etc.). In many environments, machines have been "tamed", period. In these same environments, the idea that they can provide access to powerful learning levers has been "burned". In others, there were a few human resources that skated as best they could to support the people who wanted to appropriate them. Sometimes they were denigrated because they seemed to be complicating their lives, sometimes they were buried with too many demands. These people did what they could and in some cases, they became discouraged. They looked for similar people to move forward without being buried. Often, the few human resources available were pumped up by people without vision and without pedagogical conviction. Many have this vision that the world of tomorrow requires the use of ICT, but few see that it is not useful to teach them. It is not a school subject, it is not an end in itself. It is a tool. And a tool, we show its usefulness by doing useful things with it. Where there were disappointments, we can at least say that there were expectations; that is positive. In many cases, nothing is done and we are not even disappointed because there is no expectation; this lukewarmness is even worse. It does not bring about change... Has the MEQ done everything possible to provide teachers with the tools they need to master technological tools? If not, what should it do today to make up for lost time? I remember that at the very beginning, it was necessary to justify what we were supposed to do with these new tools. A kind of integration plan. However, there was no follow-up on this. Instead, we should have given more resources to those who had a vision of how to appropriate NICT as a learning tool, even if it meant giving none to those to whom NICT meant nothing. But all is not lost in my opinion. It is possible to make up for lost time. In environments where there was failure, it is appropriate to bring each teacher back to their role as a learner. Don't ask him to teach this, or to teach with this. But ask him what he would like to learn with this tool. Most of the people I know in the school world, and who work with ICT, have seen for themselves personally how it made them better learners. Without this vision, it will be difficult for them to learn from this tool and in this case, it is better to leave that to others.

## ###ARTICLE\_START### ID:230

IN A REPORT of more than 100 pages presented on Tuesday, January 13, the French Information Systems Security Club (Clusif) is concerned about the rise in cybercrime affecting individuals and businesses, based on concrete examples. Among the concerns: illegal downloads in companies, i.e. the misappropriation of IT resources made available to employees. With in particular the case of an employee of Lucent Technologies who had designed a personal site denouncing the abuses - according to him - of a company. On June 11, 2003, the Marseille High Court sentenced him and his employer, considering that the offender acted in the exercise of his duties. The increase in these situations leads companies to wonder how to monitor their employees while respecting their privacy. Another point addressed: viruses. Sobig, Bugbear, Slammer, Mimail... In 2003, they were particularly numerous and dangerous. For François Paget, antivirus researcher at the computer publisher Network Associates, "we need to put an end to the preconceived idea that viruses are the work of people who are just looking for fun or a challenge. Today, computer viruses are used for malicious purposes. They carry tools dedicated to indelicate and fraudulent tasks." In fact, the Bugbear virus contained 1,500 banking domain names from all four corners of the world. Its goal was to search for passwords. The Clusif study also confirms that personal and banking data is information that is highly coveted by hackers. It is often obtained by bribing company personnel or hacking databases. Furthermore, Clusif notes the emergence of "phishing", from the verb "fish", to fish, spelled "ph" as hackers often do in their jargon. The phishing technique consists of exploiting the credulity of Internet users by "casting a net", most often via a mass sending of unsolicited emails, in order to lure Internet users to fake banking or online shopping websites. "Cases of phishing multiplied in 2003 and claimed thousands of victims. Because, contrary to what some specialists maintain, it is not at all obvious for everyone to realize that the site is a fake", notes Clusif in its report. Phishing is profitable for scammers, because out of several million emails sent, only a very small proportion of Internet users fall into the trap to generate illicit income. In September 2003, a man was arrested in Romania for a scam that cost users of accounts on the e-Bay auction site $500,000. According to Clusif, this form of maliciousness is becoming more and more widespread. In the United States alone, identity theft is taking on colossal proportions: the figure of 17 million stolen identities is put forward by Clusif. Finally, Clusif highlighted the problems linked to free software (known as "open source"), the best known of which is the Linux operating system. However, until now, these had the reputation of being extremely secure. "In 2003, several events seemed to alter the reputation of open source operating systems for security," says Pascal Lointier, president of the club, who bases his claim on a number of facts, including an attempt to corrupt the latest version of Linux. "Free operating systems are not necessarily written by security experts and contain flaws," he notes. Microsoft products, and in particular its Windows operating software, often criticized for their security flaws, are no longer the only ones targeted by corporate security managers.

## ###ARTICLE\_START### ID:231

Is Microsoft ashamed of its powerful monopoly? "We are not the masters of the world!", defends Christophe Aulnette, president of Microsoft in France. We have the responsibilities of a leader. We must be exemplary in terms of transparency. The tools we offer are used to help our customers improve their productivity, not to imprison them." With a turnover of 32 billion dollars, the world's number one software company seems to have polished its speech, more measured than in the past. After having escaped dismantling in the United States, Microsoft is trying to find a negotiated solution in Europe. Brussels is convinced that the Seattle multinational abused its dominant position to reduce the weight of its American competitors Sun Microsystems and RealNetworks. Microsoft risks having to pay a heavy fine of up to 3.2 billion dollars. The European Commissioner for Competition should decide before July. But a penalty, even a high one, will not alter the wealth of the American giant. "If the situation became impossible, in terms of competition in the United States, Microsoft has enough money to buy a state, to set up there and develop its programs!" assures an expert. With a battalion of lawyers at its bedside, including a former Brussels official who investigated it, the company is now keeping a low profile. The publisher agreed to pay a $750 million fine to Time Warner last year to settle its dispute with AOL, which accused it of killing its subsidiary Netscape. But the strategy remains offensive: the company is resisting tooth and nail against its split or the disclosure of its source codes, the secret of its software. At the head of the group, Bill Gates has taken a step back from the day-to-day management of the company. For the past four years, the general management has been provided by his friend and right-hand man, Steve Ballmer. Is it the fact of maturity that has led him to take a step back? "Bill Gates has not become more humble. The strategy was adjusted for economic reasons. Hasn't Microsoft been faced with a series of lawsuits? ", suggests Michel Dubec, a psychiatrist expert. In fact, Bill Gates remains chairman of the board of directors, the company's largest shareholder and "chief architect" of the software. And at the last Consumer Electronics Show in Las Vegas (Nevada) last week, he talked about the wireless digital home, the television of the future and portable objects. Microsoft wants to broadcast its programs in all electronic devices, from mobile phones to digital diaries, including televisions and refrigerators. Another example? The Xbox games console, which can also be used as a DVD player and a machine for accessing high-speed Internet. But in consumer electronics, Microsoft is taking on giants like Sony, Panasonic (Matsushita) and Philips. The publisher even entered into an alliance with the French company Thomson, integrating the TAK system into televisions, to surf the Internet to retrieve television programs or do your shopping. The alliance was short-lived: sales did not take off. TAK was a failure and "Microsoft no longer has any shares in the joint company created with Thomson," assures a person close to the matter. The American publisher's offensives to fight against piracy or unsolicited emails also show its ambition to rule everything in electronics, to influence the laws. Competing initiatives, such as the "Liberty Alliance" to reference Internet subscribers, are struggling to break through. It must be said that Microsoft has considerable research resources: 7.5 billion dollars per year. It can therefore achieve feats on its own. Its new Media Center and Windows Media 9 software thus allow it to advance its pawns in television and video broadcasting for professionals. Microsoft is, however, starting to behave like a classic profitable company: it distributed its first dividends last year. And the publisher has modified its structures to improve the transparency of its results... and to comply with American accounting rules. After the establishment, at its initiative, of seven major product lines, we can now discover its extraordinary profits in operating systems and office applications (with an operating margin of 80% and 70% respectively). However, gray areas remain. Office suites for Apple (Office) are drowned in games! It is therefore not possible to know the sales of the XBox games console. In addition, the publication of an "unearned revenue" (turnover earned but set aside for the lifetime of the software) makes the accounts unclear. Privately, Bill Gates and his wife Melinda, through their foundation, devote a fortune to fighting AIDS in India or developing vaccination programs in the poorest countries. Their donations sometimes exceed the amounts devoted by the World Health Organization for the same causes! And then Microsoft also behaves like a corporate citizen. The company graciously participates in the computer equipment of the most deprived schools in the United States. The initiative was contested at its last general meeting, because of its impact on profits. But the board of directors, proud of this project, was able to maintain its support for disadvantaged schools. The context encourages, whatever its price, to promote a good image.

## ###ARTICLE\_START### ID:232

One evening in January 2003, a few bankers, business leaders, Internet experts and IT directors met with a handful of journalists to discuss the theme: "Microsoft, a great private power". Ideas flew and arguments hit home to demonstrate that the software publisher was using and abusing its monopoly. However, the specialists asked that their surnames, the location of the meeting and the name of the association remain secret. After the meeting, none of them agreed to repeat their virulent arguments with their faces uncovered. "No one can afford to alienate Microsoft", "we work with them", "we conducted a study for them", "we bought more than 2,000 Windows licenses"... Each one explained, embarrassed, the reasons for their silence. Laurent Mahieux agreed to talk. In 1996, he founded Coherent Light, a French IT service provider specializing in hosting professional websites. The young company employed four people. LE FIGARO ECONOMY. \_ Why has Microsoft's strategy towards its customers been changing over the past eighteen months? Laurent MAHIEUX. \_ Microsoft has a big problem: it has lost the war on Internet servers. During the "bubble", many decision-makers chose a Web server developed by Microsoft. But at the end of 2003, according to a study carried out by the company Netcraft, its market share in Internet servers had fallen back to its level of the early 2000s. I attribute this decline to reliability problems. Microsoft is a company that adapts very quickly. For example, at the beginning of the 90s, it first denied the existence of the Internet, then within a few months it reacted. In the end, it was able to crush Nestcape. Does Microsoft have the responsibilities of a leader? Should the publisher allow its customers to opt, if they wish, for an operating system other than Windows? No one believes it. Its strategy is "embrace and extend", that is to say, adopt and develop. Microsoft takes a standard and then, in a subtle way, evolves it to make it incompatible. This is the case with Java, for example, the programming language created by Sun Microsystems. An application developed with this language can, in theory, run on all platforms. Microsoft first incorporated Java into Windows and then, little by little, its Java became incompatible with that of the other platforms. This ended in a lawsuit filed by Sun Microsystems which led Microsoft to abandon Java. Did the lawsuits force Microsoft to change its strategy, to become more humble? It is difficult to answer. Bill Gates and the management of the group are the only ones who know the communication policy. I note for example that the company has said that it is concerned about security. However, it is still very slow to publish patches for major breaches in its products. The company is not making enough effort. It is not responsive to improve the security of Internet Explorer. In my opinion, the lawsuits are a trifle for Microsoft. What is more worrying is the image deficit that this gives it. Business leaders learn from television and the general press that there are alternatives to Microsoft software, with Linux or Apple's operating system. Critics go beyond the narrow circle of technicians. The American giant assures that it is very sensitive to security issues. However, Germany has shown some reluctance and the Israeli government recently decided to stop buying Microsoft's Office products... I think that Microsoft is especially sensitive to its image. Its initiative to reveal the Windows source codes to governments is a reaction to its loss of market share to free software. And then there is the scandal of the "NSA keys"! Is this really the National Security Agency, the American agency that can listen to telephone conversations around the world using its Echelon system, and that could use these keys to enter computers and read the information contained therein? I am not sure. But there is a bundle of presumptions. Some Microsoft programs contain keys that are called NSA. This may be a fortuitous name, but the coincidence is disturbing. It seems that this is all the more difficult to confirm because it bothers Microsoft as much as users to recognize it. One can wonder about the fact that a government could admit that it has purchased a program that serves as a gateway to the American secret services. Is Microsoft software the least expensive? The purchase price is not decisive. On the other hand, to maintain or replace a Microsoft program with a more recent version, it is terribly expensive for a user. Over time, with a Unix operating system, it is possible to update software on an Internet server without having to restart the machine, and therefore interrupt the service. The update is simple and it is easy to go back. I was able to set up my business, spending an hour per quarter and per server for updates. With Microsoft programs, testing and updates are long and dangerous. Since it is not possible to see inside the program, there is a risk of permanently losing data. Long and complex tests are necessary. Maintenance costs are therefore higher. Its considerable research and development budget still allows Microsoft to innovate... Its means are unreasonable. And yet, the company stopped innovating when it killed the competition. For about ten years, Microsoft has been making innovations that were made by others available to the public by integrating them into Windows. However, we should not take away its merits. It was Microsoft that popularized e-mail, with its Outlook program. And for some people, Word has become synonymous with a word processor. MC

## ###ARTICLE\_START### ID:233

"This application does not allow unauthorized processing of banknote images." The new version of Photoshop, the star of image processing software, has a little surprise in store for its users. It does not allow you to open an image representing one of the banknotes of the world's major currencies, the euro and the dollar in particular. Fingerprint. The publisher Adobe has in fact integrated into its software the counterfeiting deterrence system (CDS), provided by the Central Bank Counterfeiting Deterrence Group (CBCDG, which includes the European Central Bank and the American Federal Reserve). Designed in the United States, it is based on the principle of digital fingerprinting, already widespread for marking photographic images and thus protecting them from reproduction. The CDS goes so far as to prevent a portion of an image from being copied as soon as it represents a significant part of the note. It also rejects grayscale images, or negatives, but not images of notes in poor condition. However, the system is not yet fully developed. All you have to do is import the file from an old version of Photoshop to be able to display a banknote. The result of pressure from banks, this Adobe "initiative" is not isolated. According to several sources, it "already concerns Paintshop Pro", one of Photoshop's major competitors on PC. Faced with the quality of consumer graphics tools (scanners, digital cameras, color printers), all the major central banks have decided to act. And the security "eyewash" adopted by Photoshop could well become a legal obligation, given the considerable number of players on the graphics market that makes separate agreements difficult. This is what the ECB suggests in a text published on October 24 in the Official Journal of the EU. "Contacts". To be dissuasive, banknote detection will have to be extended to all devices in the graphics chain. This is already the case in many color photocopiers, and should soon be the case for printer software. The manufacturer Epson confirms that it is working on the issue. "Contacts are underway with software publishers and hardware manufacturers," explains a spokesperson for the ECB. It is more the adaptation of hardware than that of software that will be effective in combating Sunday counterfeiting. Because it will be difficult to impose deterrent technologies on the community of free software creators: who to pursue if GIMP, a "free" competitor to Photoshop, persists in ignoring the banks' request? In the meantime, this irruption of States into the functioning of software will not fail to reinforce the growing fear of global surveillance.

## ###ARTICLE\_START### ID:234

"Unsolicited direct mail" - or spam, according to the most commonly used terminology - which pollutes electronic messaging, is the main SCOURGE OF THE INTERNET. According to several sources, one in two emails circulating in the world is an unsolicited advertising message. FILTERING TECHNOLOGIES, if they exist, are still imperfect and their deployment is costly. Some studies thus point to the considerable sums invested each year by companies to protect themselves against these MASSIVE SENDINGS of unsolicited advertising emails. In the United States, the promulgation, on January 1st, of a federal anti-spam law has not yet stopped the phenomenon. In France, the very controversial DIGITAL ECONOMY ACT seems too timid to tackle it. "MAKE women happy", announces, in English, one of them. "Viagra at a very low price", promises another. "A major business proposition," proclaims a third. Unsolicited electronic mailings, or spam, as the terminology is most commonly used, have become the Internet's main scourge. According to a report published in late 2003 by the United Nations Conference on Trade and Development (UNCTAD), about half of the e-mails circulating on the Network are these unsolicited advertisements. "The fight against spam has become a matter that concerns us all, and it is one of the most important problems facing the Internet today," declared the European Commissioner for the Information Society, Erkki Liikanen, during a press conference held in mid-July 2003. Mostly English-speaking, these unsolicited advertisements generally extol the virtues of miracle pills, offer certain medications at low prices, promote paid pornographic websites or even make promises of making large sums of money quickly. More recently, a large number of these "spam" - a terminology that has entered the latest version of the Petit Robert - have been praising the merits of software specializing in... filtering and eradicating spam. The fight against this electronic pollution is very difficult. For the time being, the technical means of combating this scourge are very limited. "At the level of corporate servers, IT managers generally deploy filtering solutions that index blacklists of senders," explains the information systems director of a major French account. "But these filters generally only succeed in intercepting a tiny part of incoming spam." Access providers, for their part, while they can identify mass emails, one of the distinctive signs indicating that a message is spam, cannot certainly distinguish between the latter and emails that are their customers' correspondence. As a last resort, users can, however, fight this evil locally, from their machine. Many spam filtering software programs are available and integrate with most available messaging programs. These systems generally include learning modules and are capable, after a few days, of recognizing - with varying degrees of success - the characteristics of unsolicited messages (recurrence of certain words, number of recipients, etc.). The latest version of Microsoft's messaging software, Outlook 2003, includes a similar filter as standard, as do the latest versions of its flagship competitor, the free software Mozilla - which has the advantage of being free. Companies and individuals are therefore quite helpless in the face of these attacks. And it is not current legislation that allows them to protect themselves effectively. Thus, the promulgation in the United States on January 1st of the Can-spam Act has not, for the time being, changed anything in the situation. Without completely banning these unwanted advertising messages, the new American federal law authorizes users to request their removal from mailing lists. It also punishes with heavy fines, or even prison sentences, those who send false or pornographic messages without the recipients' prior consent. 75% OF EMAIL TRAFFIC The Can-spam Act, specifies an access provider, remains however "much less severe than certain laws in force in several States, including California". Indeed, despite the entry into force of this new regulation, a study recently published by the software publisher Postini predicts that the proportion of spam could increase during the year 2004, reaching, in the United States, "approximately 75%" of email traffic. In France, the draft law on the digital economy (LEN), adopted on Thursday January 8th at second reading in the Assembly, includes a section on electronic mailings. However, this only regulates the collection of email addresses. The registration of an address in a commercial file will, according to the new law, only be possible with the explicit consent of the recipient. According to Internet service providers, such a provision, which transposes the European directive on electronic communications, adopted in July 2002, is too timid. "The current bill regulates traditional commercial proposals, emanating from clearly identified actors, more than spam itself, which involves fraudulent collection of email addresses," explains Stéphane Marcovitch, general delegate of the Association of Access Providers (AFA), which brings together the main players in the sector. We would have liked a law allowing us to prosecute "spammers" criminally, but the current text only authorizes us to join in proceedings already initiated..." However, adds Mr. Marcovitch, "individuals very rarely file complaints against "spammers." Lionel Thoumyre, a lawyer at the Internet Rights Forum, an association tasked by the public authorities with considering changes in the law in light of new technologies, confirms that the text does not aim to combat "wild spam." The latter, which represents the majority of unsolicited emails, "falls under the 1978 law on information technology and civil liberties," explains Mr. Thoumyre. Although it predates the existence of the Internet, it allows the National Commission for Information Technology and Civil Liberties (CNIL) to take legal action when a company or individual is suspected of creating and exploiting personal data files, such as compiling email addresses for the purpose of mass-mailing advertising messages. The uncontrolled creation and then trading of email address files is illegal. Offenders who trade in them generally use software that scans the Internet and sucks up all identified email addresses. The publishers of this type of software are generally closely monitored and are sometimes prosecuted. However, these are difficult to pursue if the offenders are outside France. Which is often the case: according to Mr. Marcovitch, "80% of spam comes from countries outside Europe."

## ###ARTICLE\_START### ID:235

Next-generation icon theft... Digital copying, the nightmare of major record and film companies, also affects website design. Pirated Sites aims to flag up nasty copiers, whether it involves recovering identifiable icons, visuals or the entire interface, with the key navigation principle. Example: on the Brazilian site Next Generation Center, an executive hands you his card to introduce the visit. Another site, another in a tie, same staging with a business card, that of an online training institute (1). The copy is crude, the idea taken as is. Subtle boundary. "Nice design. Haven't I seen it before?": the message from Pirated Sites reveals all the ambiguity of a fight against a form of piracy that is not always easy to establish. First, because some copies are not copies: there are thousands of free resources on the Web, from open source software to directories of animated images or templates (complete interfaces). Then because the line between borrowing and plagiarism is subtle: "More and more things are protected by copyright," reminds specialist lawyer Cyril Rojinsky, "and graphic design is protected as soon as we can prove that a site bears the imprint of the author's originality." Nevertheless, despite the Berne Convention to which France and the United States have subscribed, which protects authors even if they have not registered anything, good graphic ideas quickly make the rounds of the Web. For Philippe Gully, from Praktica.net, a resource site for French designers, "plagiarism is also a sign of recognition, which always pleases the authors, it is tolerated in the case of personal sites, but not when it is commercial." Be careful. On Pirated Sites, the method is very simple: any Internet user who spots a dubious resemblance submits it to the site, launched in 2000 by two New York designers, Tim Murtaugh and Scott Devendorf, shocked by the methods of a Captain Website who put the sites of other developers in his portfolio... Following the tried and tested principle of hoaxes (electronic pranks), Pirated Sites is 50% supplied by its visitors. There is no equivalent in France, except for the vigilance of the web design community. "In principle, all you have to do is order the imposter to immediately remove the elements or face prosecution," explains Philippe Gully. And if not? "A visit to our forums and a call for mass emails bears fruit." Especially since the copiers are not necessarily aware that they are acting illegally. This is the case with this 14-year-old teenager who offered his web design services for free, having sucked up the site of a web design agency in the south of France... (1) www.nextg.com.br and www.iped.com.br/ apresenta.php

## ###ARTICLE\_START### ID:236

Is our columnist trying to parody Time magazine, which in 1982 awarded the title of Man of the Year to the computer? In any case, he does not hesitate to award the title of technological innovation of the year 2003 to humans. Despite what was announced as a dull and sad year in the field of new technologies, 2003 brought us its share of small and large innovations, all of which had a more or less direct impact on our lives. Whether it is the meteoric rise of free software within several public administrations to the detriment of proprietary software developers, the beginning of awareness among content producers of standards and accessibility, the arrival of online music stores such as the iTunes Music Store, the major debates on intellectual property in the software industry or the arrival of technologies such as radio-frequency chips (RFID), a technology that raises several questions about privacy and the confidentiality of personal data, 2003 was a good year, a good vintage for those who closely monitor innovation. However, although each of these innovations could claim the title of technology of the year 2003, it emerges, in my not very humble opinion, that the human, the human being, is the one who rightly deserves this title, and this, for several reasons. Wrongly, I admit, the majority of technology columnists have tried, in previous years, to convince you of the ease of use of technologies. Without much success, however, because your letters have regularly shown your dismay about this use. However, over the last few months, the tone and subjects of your messages have changed radically. Suddenly, your questions showed that you had tamed the technological tool, that you no longer hesitated to appropriate it. How many times have I read or seen that a person, a computer novice, had downloaded their photos from their digital camera to then process them in an image editing application and put them online on a website? How many times have I read in their web notebooks the posts of Internet users who are far from being experts in web technology? In short, how many times have I seen examples that prove beyond any doubt that humans have appropriated a certain network culture? And that without humans, no technology can work? This appropriation of technologies covers all age groups as well as all social groups. For example, while many supposed thinkers are still thinking about the use of computers in classrooms, schools like the Institut Saint-Joseph in Quebec City are taking action by offering laptops to students, but above all by properly supervising them so that the technological tool becomes just as essential as a book, a pencil, and a piece of paper. Reading the comments of these young students, the next generation, on the public collaborative Web notebook "Career 2003-2004" of the Institut Saint-Joseph is pure joy. The interaction with their teachers is obvious and we like to dream of accessing the private section. But, shh! Let's respect their secret garden. The same is true for the Howard Dean phenomenon in the United States. Some people wrongly believed that simply implementing a technology would make it spread and suddenly a community would be born on the Web. This is not the case. Whether he wins or loses his presidential race, Dean's current success is based not on technology but on the empowerment of humans through technological tools. It is also through this appropriation of network culture by humans that fascinating and exciting projects flourish to the point of interesting large commercial companies and public administrations. The success of free software would never have been possible without some form of appropriation of technology by humans. Many of these projects owe their success to the fact that it is no longer just nerds, these natives of the digital world, who carry them out. For example, many software packages from the free world are successful thanks to the involvement of people of all ages and professions: project managers, editors, translators, etc. Similarly, there are several other examples that prove that this year, in 2003, humans have conquered their fears and seized technological tools to integrate them into their everyday lives. Small, simple examples that risk having a much deeper impact on the economy than we think. This is how, thanks to technological tools, a grandfather from Isle-aux-Grues uses an IP telephony application on a PC to communicate with grandchildren in Vancouver, without going through Bell telephone lines. However, in the face of this empowerment of humans in relation to technology, a danger emerges. Yes, there is nothing perfect in this world. Indeed, in light of this growing network culture, issues of privacy and use of personal data arise. Data mining and intensive research to get an accurate and realistic portrait of the people with whom we communicate on social networks are likely to inconvenience many Internet users. The desire to exploit the full potential offered by network culture will inevitably come into conflict with the wishes of another category of citizens who prefer anonymity. However, let us bet, as in the early days of the Internet, that common sense will prevail over commercial imperatives and that humans will know how to act wisely. The potential offered by network culture and the appropriation and empowerment of technological tools by humans is too great to let it become corrupted.

## ###ARTICLE\_START### ID:237

The free music, film and software exchange service Kazaa is legal, the Dutch Supreme Court confirmed on Friday, validating the decision of the Amsterdam Court of Appeal rendered in March 2002. The Court considered that Kazaa, just like a photocopier or a VCR, could be used to illegally exchange protected works, but also royalty-free files (personal documents, free software, works that have fallen into the public domain, etc.).

## ###ARTICLE\_START### ID:238

Microsoft, the world's number one software company, is reorganizing. It is creating an eighth division specializing in public sector clients: governments, municipalities and schools. The Redmond firm is competing in this market with distributors of free software, Linux, and computer manufacturers, IBM, Hewlett-Packard, Sun Microsystems and Apple. "I will lead this activity, with 1,800 people, from the division specializing in businesses. The public sector represents a turnover of several billion dollars for us. But, beyond the amounts, we must engage in long-term relationships with public actors to best serve citizens. The governments and national education systems of each country rank first or second among the clients of our 78 subsidiaries," Maggie Wilderotter, Microsoft's vice president in charge of strategy, explained to Le Figaro Economie. The American publisher must make efforts. The cities of Munich (Germany) and Houston (USA) have given up on Windows, Microsoft's flagship program, for their latest orders of computer equipment. They have preferred Linux. "Munich did not make its choice for economic reasons. Our proposal was less expensive. It is an ideological orientation," says Maggie Wilderotter. Many players regret not having access to the content of Windows, because the software is encrypted. Public customers have feared, especially since September 11, 2001, that American federal agencies, in particular the NSA (National Security Agency), will use Windows back doors (or "back doors" as experts say) to access confidential information. "Security is our number one priority. In January, we set up an initiative to allow governments to access the Windows source code. We have signed 25 such agreements, including 7 in China," says Maggie Wilderotter. These countries thus have almost all of Windows' secrets. But 3% of the code is not freely accessible, because "it is the property of the companies that developed these pieces," explains Maggie Wilderotter. The software giant nevertheless offers to put its public clients in contact with the companies that own the encrypted data contained in Windows. Under cover of anonymity, an IT executive assures that he does not have the resources necessary to read in detail the content of Microsoft's flagship software. The power of conviction of Bill Gates' firm is always impressive. Of its 51.6 billion dollars in cash, 9 billion are invested in bonds issued by municipalities and 11 billion in government loans, half of which are in the United States. Maggie Wilderotter agrees that this fortune is without equal. And assures that this windfall "does not influence the nature of the discussions that we have with governments."

## ###ARTICLE\_START### ID:239

The annoying thing about cultural institutions is that they are always behind a visual revolution. This is the case with "interactive design" at Beaubourg. A sweep of ten years of interactive graphic design, the exhibition focuses on the computer object via the user interface, i.e. the presentation of information that the beast contains in more or less graphic displays and databases. The location of this dive into "experiences of the sensitive", in the basement of the center, says a lot about the relative importance that the temple of French culture devotes to the experiments of graphic designers, engineers, webmasters and digital artists. Vibrant. Should we see this as the result of a linguistic misunderstanding? In English, a designer goes from print to series, from paper to wood, from fabric to web pages. In France, apart from a common interest in form, designers and graphic designers are neither taught the same techniques nor have they attended the same schools. Playful, industrial, innovative, multimedia or political, web designers' interfaces, since that's what it's all about, borrow from design its lesson in simplicity. Since the first of them, for the video game Pong in 1958, they have never ceased to allow an audience of uninitiated people to penetrate this universe of computer codes and abstruse commands. Where does the presentation stop, where does the creation begin? Beaubourg, by removing any questioning on the very subject of the exhibition, mixes artistic devices, interactive objects and innovative interfaces. Between the poetic Twilight of the duo Hehe (Helen Evans and Heiko Hansen), where the visitor blows into a tiny propeller to remotely trigger sound and vibrating light shows, and the graphics of the Habitat site, what is the connection? None, except for the use of digital tools. On the one hand, the "free" artistic gesture; on the other, work on commission. In this deliberate confusion, the useful and educational chronological wall stands out: with its overlapping colors, each representing the history of software, maths and research, games... it lays the foundations of the techno-digital profusion: while in 1961, Philips invented the cassette, in 1965 Ted Nelson put his first hand to the concept of hypertext, at the origin of the tree structure, etc. The thematic division of sites, CD-Roms and videos is also excellent, historical, prospective and creative. In summary, according to John Maeda, the pope of digital creation: "We think that man masters the computer but it's quite the opposite." The retrospective of creation in France is unprecedented, mixing the first CD-Roms (which, before broadband, were the graphics lab par excellence) and technical innovations, such as the Transfert site (closed less than a month ago...), thanks to free software with simplified updates. Beginning. The "political and critical expressions" table is very clearly leaning towards net-art. Do Mark Napier, Jodi or Lia, three figures of digital creation, have designers' concerns in mind when they deconstruct monopolistic tools or present, like Josh On's unrivaled They rule, a map of the cross-shareholdings of the hundred largest American companies, necessarily critical? So be it, never mind the terminology: polemical sites and poetic installations are dialoguing for the first time in Paris. It's a beginning...

## ###ARTICLE\_START### ID:240

The sites www.mono211.com www.hippocamp.net www.irdial.com/french /new\_index.html www.evenement0.net www.thinnerism.com Others www.textone.org Webzine and electro label; one of the most interesting of the moment. www.kikapu.com Electro-ambient www.8bitrecs.com Indie rock, electropunk, twisted electronica with Rothko, si-cut.db.. www.llab.org Drum&bass, breakbeat www.tokyodawn.org R'n'b, downtempo, soul www.observatoryonline.org Electronic experiments www.comfortstand.com /catalog/001/index.html "Two zombies later", double compilation to download for free until February 1st, cocktail music, offbeat easy listening, bizarre and exotic music.. CD-R Arbouse Recordings www.arbouserecordings.com Tiramizu http://tiramizu.free.fr Relax Ay Voo 23, rue Tran, Pau (64). Info: 05 59 82 86 relax-ay-voo @wanadoo.fr Aspic Records www.zone51.com/aspic Read Techno rebelle, un siècle de musiques électronique, by Ariel Kyrou, Denoël /X-trême. www.technorebelle.net Mix, burn & RIP, Das Ende der Musikindustrie, by Janko Röttger. www.mixburnrip.de Netaudio reviews www.de-bug.de/cgi-bin /debug.pl?what=listPrev &part=review&list=19 The Berlin magazine, DE:BUG, which devoted a special report to the explosion of the netaudio scene in its November issue, is putting its netaudio review online, with reviews and links. See also the mailing list: http://groups.yahoo.com /group/netaudio http://noerror.scene.org Netlabel news, releases, compilations.. Audio format Information on .ogg, a new audio format, open-source equivalent of MP3. www.vorbis.org

## ###ARTICLE\_START### ID:241

No protection, no price, no VAT, no distribution, just music." This slogan, taken from the Optical Sound website which offers Internet users a free mix of Rainier Lericolais, could serve as a rallying cry for most of the MP3 labels that are flourishing on the Internet. Against the commercialization of music and the diktat of the majors, these labels have been offering their listeners free downloads for several years now. And legal ones. Enough to make record companies think, for whom music on the Internet rhymes with piracy and downloading illegal files via exchange systems (Peer-to-peer or P2P). More concerned with the distribution of their music than with their cash register, these confidential labels, which only exist on the network, offer a quality alternative to the sclerotic circuit of the record industry, based on exchange and access. The oldest netlabels have their roots in the demo scene, musician-programmers who had fun tinkering with tracks on the first computers (Amiga, C64) before distributing them on the Net to have their friends listen to them. Small underground community platforms that would gradually switch from .MOD to .mp3 at the end of the 90s, from chiptune to electronic music, from the friends' site to the first attempts at independent online labels. This is the case of the English pioneer Monotonik. Monotonik was created in 1996 to "distribute talented musicians who were not attracting the attention they deserved", explains its founder Simon Carless who now lives in California. The label quickly carved out an excellent reputation on the "IDM" (intelligent dance music) scene. Today, it is at the head of "1.3 gigabytes of electronic music", electronica, breakbeat, drum & bass, nu chill, or 300 tracks to download and distribute for free. "IDM is a niche genre. Even its most famous musicians don't make a lot of money," explains Simon. "The number of records they sell is comparable to the number of downloads (an average of a thousand per track). So why charge people if you can do it for free and everyone is happy?" A short-circuited system. The profitability of the company is generally the least of their worries. "The players in this world don't give a damn about whether these models are viable, they don't have an economic vision; they often work on the side. If, one day, their netlabel can make them money, so much the better, but what motivates them is the love of music and the pleasure of sharing it freely," analyzes Ariel Kyrou, author of Techno Rebelle. United in their rejection of products formatted by the majors, they short-circuit the distribution system and free themselves from its heaviness. "Thanks to the network, you no longer have to wait for some hypothetical label to decide that your music is the music people want to hear," says Jonathan Fisher, founder of Manchester-based netlabel Hippocamp. In the eyes of the musician who operates under the pseudonym Blue Sky Research, the record industry is nothing more than "a money machine run by men in suits, who artificially create bands, spend fortunes on marketing, sell disposable pop to kids who spend all their pocket money on it, it's disrespectful to music to do that." Jonathan hasn't bought a CD for over a year, "I don't download illegal music either," he explains. "It's not necessary, there is so much beautiful music available, whose authors just want it to be heard." A fan of do-it-yourself, he founded Hippocamp initially to distribute his music and that of his friends, then, thanks to popularity, the electronica label opened up to the rest of the world. Ariel Kyrou talks about community music that works by elective affinities: "We prefer to be twenty to fully enjoy it than a million to passively consume. We make music for "close ones"." A proximity encouraged by a growing confusion between those who make and those who listen to music. Thanks to technical advances (home studio, laptop, etc.), access to music has become more democratic. Musicians have freed themselves from production costs, explains frz, from the Aspic label (read opposite): "Computers have given us access to everything that could only be found in overpriced studios. There is a freedom to create like never before." Conversely, it is increasingly difficult to be signed by a record company. Thanks to the network, everyone can simply and quickly distribute their works, "from close to close, they can please Internet users who become not fans, but amateurs of their music," concludes Kyrou. Derived products. Initiatives that have also contaminated more traditional structures, such as the English label Irdial, converted to the philosophy of free music, in line with the free software popularized by the American Stallman. In 1999, the label "freed" its impressive catalog, making all the tracks available for free on the Web and even offering to burn them for any amateur who sends three blank CDs. According to Akin O. Fernandez of Irdial, everyone wins. "By making our productions available for free, so that individuals can exchange them as they wish, we have made ourselves known throughout the world, something impossible for a label that sells CDs. We have removed monetary friction and allowed information to circulate to an unlimited number of people. We could never have done that before MP3." Irdial artists earn money from "derivative products", tracks that appear in films like Vanilla Sky, in TV programs, every time they are broadcast on the airwaves. "The works can be downloaded anywhere in the world, the current and potential revenues we derive from them increase accordingly." It was by creating Clapping Music that Damien Poncet (Myjazzychild) and Ernesto Carnaval became aware of the set of constraints that accompany the launch of a classical label. They then decided to launch Evenement at the same time, which, before breaking through on the Net, was a CD-r label, another fashionable alternative (read below). Handmade, printed in a maximum of 99 copies, distributed during concerts with "original works whose only stake is the music". To prevent Evenement from becoming a label for the happy few, they make the albums freely accessible on the network. "It's our playground, we do what we want there, without constraints, with the desire to broadcast our music beyond questions of money." Over the past year and a half, the site has recorded 12,000 downloads. "It's a small utopia, with a community side. It's different from P2P which is very impersonal." In the charter, they clearly set out their philosophy: "Non-rights music, which can be reproduced and distributed by anyone who wants to take the trouble, even without authorization." With this epilogue: "Event is not profitable." On the label's website, you can find thematic compilations of very good quality as well as unreleased tracks signed by the big names of the electronica scene (My Jazzy Child, O. Lamm, Erich Zahn, Laplantine, Encre, Minkkinen, Colleen), musicians who, moreover, have all released records. netaudio reviews. Long considered a last resort for artists who couldn't break through on the traditional circuit, MP3 labels have become more professional, the quality is improving and rivaling commercial productions. "When we started a few years ago, music was free because it simply wasn't good enough quality," admits the founder of Hippocamp, "which is no longer the case." The Berlin magazine DE: BUG, dedicated to electronic culture, has been running a monthly column "netaudio" for four years, just like the records or vinyl reviews. "The scene is exploding and, interestingly, it is also attracting more established artists who have already released albums on physical media (CDs, vinyls). The quality and styles are diversifying. At the beginning, there was mainly electronica, now we are finding more and more dance floor-oriented tracks." The same observation at Monotonik: "More and more people are submitting their tracks to us and wanting to be broadcast on our site. We choose the best ones and we also listen to a lot of musicians online, we try to attract the most talented ones." Several musicians present on Monotonik were also discovered through this channel and released records on physical labels such as Warp, Rephlex, Pork, Planet-Mu or Sony. The German netlabel Thinner, specialized in electronic dub, presses promo CDs, which it sends to radio stations, slips tracks into DJs' playlists, organizes events such as netaudioparties, in order to ensure better visibility for its artists. MP3 labels are starting to contaminate the real world.

## ###ARTICLE\_START### ID:242

A FORMER member of the Massachusetts Institute of Technology (MIT) Artificial Intelligence Laboratory, Richard Stallman is one of the main instigators of the free software movement. Through the FSF, he is the most high-profile apostle of these free programs whose source code (the "recipe") is open and accessible to all. According to him, this commitment is, above all, "a moral requirement": that of sharing knowledge and, he says, of "freedom". Abhorred by the giants of IT, he is today the standard-bearer of the fight against the "proprietary" software model.

## ###ARTICLE\_START### ID:243

Although not absent, free software will not be in the spotlight at the World Summit on the Information Society (WSIS), which is due to open on Wednesday 10 December in Geneva. Throughout the preparatory meetings, which have been held since 1 July 2002, the gap has continued to widen - on this subject as on others - between representatives of non-governmental organisations (NGOs) and those of the private sector. The draft declaration of principles and action plan thus ultimately make little reference to these tools, the importance of which is emphasised by representatives of civil society in most associative projects linked to the Internet. "During the preparatory meetings, the American delegation and certain companies manoeuvred to limit as much as possible any reference to free software", assures Frédéric Couchet, president of the Association for the Promotion of Research in Free Computing (April). Seemingly innocuous, the question of using so-called "free" computing to open up countries in the South is at the center of strong tensions. These free, open programs, developed on a voluntary basis and modular at will, are in fact increasingly encroaching on the market for so-called "proprietary" computing. And the trend, initiated by the associative and activist world, after having won over countries in the South, is now noticeable in industrialized countries, where many public administrations and major accounts are adopting free computing solutions, to the detriment of their counterparts marketed by traditional developers. In addition to simple competition, the latter see their economic model - based on heavy investments in research and development, offset by the taking out of patents - shaken up by this alternative computing. Among representatives of the private sector, there is therefore strong reluctance. "Any mention of free software was ultimately only possible by putting these tools on a completely equal footing with proprietary software," says the head of a French association involved in the preparatory discussions. "In short, their specificities, such as freedom of access to the source code or the freedom to change and adapt the characteristics of the program, were, in a way, passed over in silence." The participants in the "prepcom" were thus required to respect a certain "technological neutrality," according to Mr. Couchet's expression. "Through free software we wanted to address broader issues," explains one activist. "And in particular the values that result from it: open access to content, the notion of "common good" applied to information, etc." The issue of free software is linked to questions relating to intellectual property, which are sensitive for the IT industry. During a meeting, the mention of these subjects even provoked "an outcry" confided Frédéric Couchet, "some participants only wanted to refer to the World Intellectual Property Organization [WIPO] or the World Trade Organization [WTO] on these issues". "Our private sector interlocutors have constantly taken the opposite view of our positions by repeating to the delegations of emerging countries that the strengthening of property rights on content and information would allow and facilitate the emergence of local content, he added. This is, from our point of view, totally false." TRENCH WAR The tensions were to be expected. For more than two years, the associative world involved in the Internet and the IT giants have been engaged in a trench war on these issues. In particular since the European Commission launched, in February 2002, a proposal for a directive aimed at making "computer-implemented inventions" patentable on the Old Continent. Even if it means aligning with the very broad American conceptions of the scope of patentable inventions. For the time being, the first battles have turned to the advantage of civil society since the European Parliament refused to vote on this proposal for a directive and must re-examine the text amended in 2004. The situation remains tense. The leaders of the associative world involved in the preparatory process for the WSIS suspect the United States of having "taken back control" of certain UN organizations. While, in view of the summit, the first contacts were being made between civil society, the private sector and government delegations, the NGOs have in fact lost a major ally within the United Nations Educational, Scientific and Cultural Organization (UNESCO). The Frenchman Philippe Quéau, whose positions were close to those supported by associations and free software activists, was thus discreetly removed from the Division of Information and Informatics of UNESCO, which he had headed. Appointed to head the Moscow representation of the organization, he was replaced, at the end of the summer of 2003, by the New Zealander Elizabeth Longworth, a lawyer by training and known to be close to American positions on intellectual property issues. From the outset, the climate in which the first discussions were held was thus, for this reason as for others, undermined. The continuation of the discussions has in no way improved the situation.

## ###ARTICLE\_START### ID:244

Having become famous under the pseudonym DVD Jon, Norwegian Jon Lech Johansen has become the idol of an avant-garde of Internet users advocating absolute freedom on the Internet. The American cinema lobby, the Movie Pictures Association of America (MPAA), has clearly identified him as a public enemy. It is the music industry's turn to rub shoulders with him. After having broken through the anti-copy protection system of many American films, DVD Jon has thwarted the DRM (Digital Rights Management) technology of iTunes Music Store, the famous virtual music store launched last spring by Apple. What's more, the QTFairUse software developed by DVD Jon allows unlimited sharing of MP3 music files, thus breaking the limit of three networked computers recommended by Apple. Not so long ago, the magic formula for unlocking was available on DVD Jon's weblog (personal journal on the Web), accompanied by a defiant So sue me... Come on, sue me! This pirate program is already spreading under a free license (open source) on the Internet, which allows the Internet community to strengthen its variables and to retransmit improved versions. DVD Jon is now admitted to the constellation of threatening stars, like Shawn Fanning, initiator of the Napster sharing software, or Nikki Hemming, brilliant businesswoman who leads the destiny of the KaZAa software from Australia. In any case, the appeal trial of the Norwegian Jon Lech Johansen opened a week ago in Oslo; the Hollywood majors accused DVD Jon of having thwarted the measures of protection against the copying of DVDs in order to allow their illicit distribution. In January 2003, the famous 20-year-old hacker was acquitted in the first instance, which did not discourage the dreaded MPAA. This appeal of the acquittal was made because the association considered that there had been procedural errors and that the judgment had not addressed the substance of the case. The judgment will be rendered in early 2004. Let us recall that at the age of 15, DVD Jon had developed (with two partners) the DeCSS program which made it possible to decrypt the Content Scrambling System (CSS) anti-copy systems, and then made it available to the Internet community. Jon Lech Johansen, for his part, persists in believing that any purchaser of a DVD can freely dispose of a legally purchased product, especially since he absolutely does not plan to copy with the intention of making a profit. We will also learn that DVD Jon recommends viewing his decrypted DVDs on the free Linux operating system. Whether or not it wins the appeal against the unrepentant Norwegian, the film industry has not finished climbing the curtains: a recent statistic from the independent Canadian firm Digital Intelligence Centre indicated in November that the number of new titles appearing on the major P2P networks (KaZAa, Morpheus, etc.) during the previous month included the following proportions: 13.9% for music, 20.4% for e-books and... 46.1% for films! Hence the urgency of an exemplary case for the film industry... which is called DVD Jon. In the meantime, 41 new procedures have been initiated by the Recording Industry Association of America and severe warnings have been served to 90 others. The RIAA is focusing on Internet users who have downloaded more than a thousand files on peer-to-peer exchange networks. So far, the American association has sued 382 users of these networks and reached out-of-court settlements for damages in 220 cases. More than a thousand other users have promised to stop copying music in order to avoid prosecution. In fact, it's not much. Since this wave of intimidation initiated by the RIAA at the beginning of the summer, file sharing is said to have decreased by 9% in the United States. We can imagine that this 9% is mainly made up of fearful parents who have ordered their teenagers to empty the family hard drive... And 91% of American Internet users continue to give a damn about this random interpretation of copyright infringement. DVD Jon and the Internet community have not finished running into the old industry: new online consumption sites are joining the iTunes Music Store, Microsoft, Roxio (legalized Napster) and others like Universal (Pure Tracks). Virgin Entertainment Group, Hewlett Packard and Quebecor Media are also preparing to launch their songs at 99 cents and their albums at $9.99. iTunes hopes to sell 100 million songs online in 2004. This figure may seem impressive, but it will only absorb a tiny portion of the losses incurred by CD and DVD stores. These two worlds have not finished clashing, to say the least.

## ###ARTICLE\_START### ID:245

Apple's disciples have long lamented being left out by the designers of Kazaa, Napster's successor. Despite a few attempts by software designers, the Fastrack network, developed by Kazaa, has remained inaccessible to Macintosh aficionados. But recently, it has finally become possible to connect directly to the Fastrack network from a Mac, courtesy of a few software programs using open-source protocols such as mlMac and, above all, Poisoned. Soon, five networks These multiclients can not only connect to the Fastrack network (Kazaa, Grokster, iMesh), but also to the Gnutella network (Limewire, Acquisition) as well as to OpenFT. Thus, at the time of writing, the Poisoned team was finishing the development of OpenNapster and eDonkey extension modules, which will make Poisoned a software package capable of accessing five P2P exchange networks at the same time. - Poisoned www.poisonedproject.com/ - mlMac www.abyssoft.com/software/mlmac/index.php

## ###ARTICLE\_START### ID:246

"It's a job that puts writers, photographers and teachers in danger, because it places them in a territory that belongs to no one," summarizes the author François Salvaing. However, for a year, dancers, illustrators, authors of children's books have succeeded one another around "e-pages", an electronic writing workshop, where children learn to create their own web page, to use the mouse while tackling word processing, layout and hypertext links. Without forgetting to delve into questions of identity, the digital divide and we'll skip over the "big" learned words. Launched in 2002 at the Youth Book Fair, the tool at the base of this ambitious project is a free software for simplified creation of web pages called Arapa (from harappa, an Indian word meaning iconography of ideas). Since then, Arapa has been running workshops in media libraries, from middle schools to multimedia spaces, in the Paris suburbs, in Noisy-le-Sec, Pantin, Saint-Ouen and Montreuil. A year of experimentation, wanted by the Centre de promotion du livre de jeunesse (CPLJ), which organises the Salon de Montreuil and thus campaigns for reading and writing to adapt to multimedia forms (see also the Livres de Libération section of yesterday). Some 2,000 children aged 8 to 16 have put 600 mini-sites online. The computer is only a pretext here, and the time spent in front of the beast is only incidental. They are not there to learn everything about the subtleties of the Internet: some have not even understood that the page they were creating could be accessed from any PC (some enrich their pages from home using a secret code). With Perrine Rouillon, an author who mixes illustrations and poetic texts, they cut out drawings, pasted their words, before moving on to "putting them online". First contacts with the keyboard, laughter and confrontations between boys and girls (the one who dreams and describes his future racing car is mocked by the girls, who have already finished their page). "I am an exploding volcano. Because it is getting too hot." The text is black on a background of the skull of the author, of Turkish origin, Soy Ugur, seen from above with two hands holding his head. One page, sometimes two: the sites created by the children in four or five days of workshops are not exceptional. Just authentic. And when they see their own page displayed on the giant screen, as will be the case at the Book Fair this weekend, they are as proud of it as of a diploma. Children's Book and Press Fair, until December 1st in Montreuil, 128, rue de Paris, 93100, entrance to the fair 4 euros (free for under 14s). Projection of sites and presentation of arapa.net and, from 2 p.m. to 4 p.m., introduction to creating personal sites on arapa.net. Registration on site from 9 a.m. to 2 p.m.

## ###ARTICLE\_START### ID:247

Before the World Summit on the Information Society in Geneva from 10 to 12 December, the report on "Electronic Commerce and Development" just published by the United Nations provides an opportunity to assess the stakes. The Internet has changed the behaviour of individuals and companies. Business-to-business trade was worth around 1,000 billion dollars in the United States and around 200 billion in Europe. Compared to these volumes, retail sales on the Internet are almost marginal: 1.5% of total sales turnover in the United States and Europe. And the number of Internet users continues to grow at a high rate. At the end of 2002, there were 591.6 million Internet users worldwide, compared with 493 million a year earlier. In the world ranking, France is the poor relation. Only 31.8% of the population had Internet access at the end of last year, an increase of 85%. France is catching up. In fact, the growth rate in France is comparable to that of countries in the equipment phase such as Turkey and Indonesia. For fast Internet, South Korea is by far the best equipped country, with 21% of its population, ahead of Hong Kong (14.6%), Canada (11.5%) and Taiwan (9.4%). The Asian dragons and Scandinavian countries are at the top of this ranking. The United States is in eleventh place. By type of technology for accessing fast Internet, the telephone network is the most popular (50% for the so-called DSL technique), ahead of cable (45%) and other connection methods, via satellite. The UN report also measures the digital divide. The number of Internet users in developing countries represents 32% of the total number of users in the world, up 40% over one year. At this rate, they should "represent half of the Internet users in the world within five years", note the experts. To boost e-commerce and access to new technologies in the poorest countries, the United Nations is recommending increased use of free software whose source code is freely accessible, copyrighted and copyable. Bridging the gap between rich and poor countries will be on the agenda of the next World Summit on the Information Society. But the least well-endowed countries are calling for the creation of a fund to help them equip themselves. A solution that has so far been rejected.

## ###ARTICLE\_START### ID:248

Weighing more than Boeing or McDonald's, the cash machine runs almost by itself. The founder of eBay was not mistaken: "A monkey could drive this train." In this planetary transport, the world leader in Internet auctions, which is preparing to enter China, is embarking 37 million active users (1), buyers and sellers. For them, it would be "simple and efficient," according to the group's leitmotif. To the point that, among the sellers, some are thinking about switching from hobby to business. "I started for fun, I continue for fun, it's like playing shopkeeper." At the age of 62, Monique de Saint-Georges has been playing around for four years. A retired tour operator, this Belgian, a chic-popular combination, has more than 300 transactions under her belt. "It's all about the suspense, the pleasure of seeing the money rise at crazy rates." Her sales niche: Japan. Old erotic manga, dolls or ancient Buddhas brought back by his son living in Tokyo. "EBay has brought a revolution in the world of collecting," boasts Grégory Boutté, 31, director of eBay France. And he cites a "dinette wall coffee maker" addict who, before the eBay era, found one every six months; now, he claims, it's one a week. The legend of its origins confirms it. In 1995, a Franco-American post-baba, Pierre Omidyar, invented the system in the San Francisco Bay Area (hence the name). The goal: to supply his girlfriend's collection of candy dispensers. Soon, the platform would put the entire world at the click of a mouse. In 2001, it swallowed up its small French rival Ibazar. With subsidiaries in about twenty countries today, it allows an Italian to find an ex-voto in Mexico; to a Swede, a chainsaw in Canberra. Or, like an American in 1999, to put one of his kidneys up for auction. An "object" that caused a scandal and was withdrawn from sale. More surreal, on October 10, an Englishman won the auction of a "fabulous bucket of Bristol tap water, new condition" for 255 pounds (364 Û). The sum will be donated, the seller promises, to the NGO Oxfam in South Sudan... to dig wells there. "Bringing from California or Paris, for me it's the same." Deep in his Lozère ("for six months, it's a desert"), Francis Lejolivet, 51, spends 180 hours a month on eBay. "I have a bit of a collecting itch," admits this unemployed man, a former electronics technician. He collects scientific antiquities, coins from the Roman Empire, old clocks that he learned to repair. And resells "the objects from the beginning, which had become a little bland". His best sale? "A geodesy device that I couldn't sell here", which went for $1,600 on the American site. It's better to be multilingual, he warns, or at least English-speaking, and to master the mysteries of Paypal (2). The garage transformed into a hangar Alain Fournier is also a collector. Dinky Toys and toy trains. For the past year, this sales manager in the construction industry and his wife, a former dance teacher, aged 48 and 45, have switched to professional level. Like a thousand "ebayers" in France (according to our estimates), around 10,000 in Germany and 150,000 in the United States. Isabelle has registered with the trade register. "We have money coming in, so we might as well be legal." Turnover: around 4,000 euros per month, or 1,300 euros net. She's not idle. "We're trying to get organized," she admits. End-of-sale rush, packaging, accounting... "I brush my teeth and a minute later, I'm on eBay." In fact, her full-time job turns into a full-time and a half, given Alain's involvement. Regulars at auction rooms, they buy in batches, piling up in their garage converted into a shed. Old games, porcelain, silverware... or miraculous odds and ends. "At the bottom of a box, I come across a corkscrew with blades, engraved with a lion," says Alain. The thing will sell for 550 euros. "We never dared ask the guy why he bought it for fear he'd change his mind," he laughs. But in general, the best we have, we sell on eBay. And, in the summer, we sell our unsold items at flea markets. There, the prices go down, the opposite of auctions." Bid each other... The seller, on the lookout, watches for the paying pig. Hours of moping in front of stagnant auctions, improving the description of an object, learning about postal rates, weighing to the nearest gram. "My house is full of crap, every day the bubble wrap invades me...", sings the American parodist Weird Al Yankovic on eBay. And the more or less idiotic questions come in dozens: "What color is the bag?" "Hello. Red, like in the photo and in the description. Kind regards." We take kid gloves, we spare the customer. Because the whole system is based on each person's reputation. The seller is supposed to rate his buyer as soon as payment is received. The latter evaluates it in return, upon receipt of the package. This reciprocal "feedback" constitutes the "profile" of the users, immediately visible. Vultures and pigeons Precisely, some "profiles" make people envious. Like that of the Fournier couple, rich with nearly 1,000 evaluations at 99.6% positive. A trustworthy business card. In April, they saw, helpless, their account hacked. Their password, too simple, was "cracked" by a scammer. Three days of cold sweat for the duo, before things got back to normal. In the high-tech department, this type of scam is not rare. An ebayer, alias "pro-vocation", reports them to the site's "investigations" service. And also alerts on the forum. From his Parisian F1 and his eighteen computers, this free software enthusiast is on the hunt. It's strange to see the former anarchist, a fifty-something with a long mane of hair, take on the role of volunteer cop. "Unfortunately," he apologizes. "But I can't stand people getting ripped off." Every day, he detects fraud and flaws in the system. "EBay hides the problem, doesn't warn enough, doesn't provide after-sales service," he fumes. "It's the logic of the wallet." The site makes all its money with insertion fees and a commission on sales (around 5%). When it comes to fraud, the young boss of eBay France dodges the issue: "A plasma screen, offered at 1,500 euros, at a third of its value, is too good to be true. Buyers need to use common sense." Even though he considers the number of scams to be "extremely marginal," he is pleased with the police work done by "very efficient users." "Without security, we don't exist," he argues. "It's our number one priority, because it goes to the heart of our model." Also, a verification of the seller's identity was introduced in February (3): "We are prepared to lose business on this point. It is the buyer who takes the first risk by sending a check to a stranger for an object that he has not seen. So, we control the seller." On the other hand, it is fanciful to hope for a similar measure with regard to buyers. "We would lose the instantaneity of registration, it would significantly impact our activity," admits this former SupdeCo student. The bogus bidders, these compulsive ones who do not follow up, thus weighing down sales, would therefore have a bright future ahead of them. A high-tech economy of the precarious "EBay is the laboratory of the economy of tomorrow. We minimize costs, we accelerate flows," notes Michel Suret-Canale. A painter, he has sold several hundred works on paper there, starting at 30 euros. "I prefer to sell cheaply than not sell at all. And I gained confidence by realizing that I had an audience." Especially across the Atlantic where the French touch is attractive. But since the start of the school year, he has been teaching visual arts again. "EBay can only be a sideline. If you count the costs and the work, it is not profitable. And psychologically, you are very alone." Subjected to the full force of the law of the market. "It can work very well then very badly. A high-tech economy of the precarious," summarizes this expert eBayer (4). Far from these warnings, Patrick Langolf, himself, is betting everything on the site. His future and his salvation. Living in the East, a former plumber-heating engineer, this German speaker has studied the supply and demand of the German site. Traffic there is ten times greater than on the French site. He has identified niches, such as aquarium products for example. "No stock or goodwill to pay." And is preparing to create his small business by reselling in France objects from across the Rhine, which are impossible to find in France. "Please, don't detail my projects. Without money and unemployed, I wouldn't want the competition to crush me and eliminate me." Good luck, Patrick. photos CHRISTOPHE MAOUT (1) Having bought or sold at least once in the last twelve months. But eBay refuses to communicate detailed figures country by country. (2) International electronic payment system, bought by eBay last year. (3) By registering a credit card or by sending a letter to the postal address. (4) Author of Je vends et j'acheter sur eBay (Edition Eyrolles).

## ###ARTICLE\_START### ID:249

WHAT PARTY in France can today claim to bring together for five days some 50,000 activists, as studious as they are playful, ready to participate in hundreds of conferences or workshops and as many parties or shows? What party would be capable of associating with this event a plethora of associations, unions, collectives, networks, coming not only from the four corners of Europe but from all over the world? None, obviously. After the enormous gathering in August on the Larzac plateau, it is nevertheless the performance that the alter-globalists are preparing to repeat with the meeting, this week, of the European Social Forum in Paris and its suburbs. In just a few years, this movement as heterogeneous as it is dynamic has therefore succeeded in its bet. It is undeniable, in fact, that by brandishing a conquering idealism the alter-globalists have created a new political dynamic. In these times of democratic depression, electoral abstention and discredit of governments, they have given back to many the desire to mobilize and the taste for utopias. Changing life, changing the world seemed the dusty slogans of a faded socialism or an outdated leftism. Here they are finding enough vigor and relevance to bring together seasoned activists or neophytes. This is a good thing. The alter-globalists still have to remove two ambiguities. The first refers to their relationship to power. Unlike many of their protest or revolutionary predecessors, they do not claim to take it or exercise it. But one cannot eternally drape oneself in the comfort of counter-power without risking losing one's credibility. The second is due to the absence of a convincing counter-project. As much as the indictment against "liberal globalization" can be structured, as much as the criticisms against the "commodification of the world" are often argued, as much as the alternative proposals lack clarity and coherence. "Another world is possible." But which one? From the defense of "free" software to the famous Tobin tax on capital movements, through the defense of the environment, the denunciation of advertising brands, the fight against poverty or the fight against GMOs, the paths and ideas swarm in the most complete disorder. This ebullience may well be claimed as a kind of brainstorming without borders or taboos, it does not mask some fundamental contradictions. Starting with the one that divides the alter-globalists, who want to modify globalization but not renounce it, and the anti-globalists, who want to barricade the nation-state and return to statist policies and protectionism. Ambivalence towards power, ambiguity about the vision of the future: the anti-globalists will have to decide on these two points if they do not want to soon give the impression of going round in circles.

## ###ARTICLE\_START### ID:250

In his thirties, Julien is putting the finishing touches to the settings. A few laptops, some free software. And above all, a big dose of imagination to develop the Babel translation system. "It's great, in Bombay, where the next World Social Forum will be held, the work of volunteer interpreters will be able to be broadcast in ten languages and simultaneously around the world via the Internet," Julien enthuses. "Anyone will be able to connect to the Bombay WSF site and follow the debates and seminars live," adds Jean-François. But for now, it's time for experimentation. This year again, the ESF organizers will have to allocate a relatively large budget for a minimum of translation (Libération yesterday). "The interpreting station will cost us 500,000 euros," explains Gérard, one of the coordinators of the Babel project. During the previous forums in Porto Alegre, we spent the equivalent of 1 million euros on it." By storing debates, seminars and other workshops translated into several languages on PC hard drives, the organizers want to gain even more independence. "From those who finance us, particularly political parties, and who demand the right to be heard in forums in exchange," explains Gérard. And Jean-François adds: "This translation system will be our living memory, which will allow us to move forward and build alternative proposals more effectively."

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## ###ARTICLE\_START### ID:252

It's hard to choose between the 55 plenary conferences, the 270 seminars, the hundreds of workshops, the 200 shows or "actions" that will be held from today until Saturday in Paris, Saint-Denis, Bobigny and Ivry-sur-Seine, the four cities hosting the second European Social Forum. From the GATS to temporary autonomous zones, including patentability or No vox, do you speak "alter"? Libération, through an ABC, has subjectively selected 26 words, themes, demands or issues emblematic of the alter-globalization planet. Each time referring to a debate or a place. A little pre-dive. GATSGeneral Agreement on Trade in Services, currently being negotiated at the WTO. It is seen as the armed wing of the privatization of public services (water, health, education). In France, a hundred local authorities have declared themselves "non-GATS zones". And call for a moratorium. Plenary, Saint-Denis, Stade de France, Friday, 9 a.m. Patentability (of living things) Medicines, knowledge, agricultural seeds: the proliferation of intellectual property rights is the emblem of the commodification of the world. The objective of the alters: to preserve these areas from the sole logic of profits. Seminar, Saint-Denis, Légion d'honneur, tomorrow, 6 p.m. (Fair) trade How to guarantee a "fair" price to producers in poor countries (coffee, bananas) or decent working conditions for their employees: from Max Havelaar to Artisans du monde, ethical networks are making their mark. A concept sometimes taken up by companies, which is rejected by a whole fringe of the alters. Seminar, Bobigny, Parc de la Bergère, Friday, 9 a.m. Civil disobedience Theorized by Henry David Thoreau in 1849, applied by the civil rights movement under Luther King in the 60s, this form of struggle was revived by Subcomandante Marcos in 1994 (Chiapas, Mexico). Resistance deemed legitimate, even if it is illegal... like the dismantling of a McDonald's or the destruction of a GMO field. Workshop, Bobigny, Magic Cinéma, Friday, 5 p.m. (Popular) Education Bringing back into fashion the associative principles of the beginning of the century. It irrigates workshops, local committees and general assemblies. And the ESF. But also community media. Objective: to inform, educate, explain the issues of neoliberal globalization. And train counter-experts. Seminar, Saint-Denis, Fratellini Academy, Friday, 6 p.m. Feminism Women are one of the minor components of the movement. Who remembers that a global march in Quebec in 1995 brought together more than 32,000 women? For them, globalization has accentuated the domination of the male gender. Plenary, Bobigny, Gymnasium Wallon, Friday, 9 a.m. Glocal (global-local) Starting from the global to understand the local. Or vice versa. A way of showing that another world is possible through a civic attitude. From the neighborhood committee to the overhaul of the global financial architecture, via new national or regional rules of the game. Saint-Denis, l'Usine, Friday, 6 p.m. Hacktivism Contraction of hacker (Internet pirate) and activism. Main feats of arms: fake website (of the WTO, by the Yes-men), mail-bombing (flooding of messages to the World Bank) or electronic sit-in, massive and simultaneous connection to crash a server (Lufthansa, which expelled illegal immigrants). Paris 11th, Maison des métallos, permanent. Intergalactique Movement launched in 1996 in Chiapas (Mexico) and reactivated at the World Social Forum in Porto Alegre (Brazil) in 2002. Horizontal network, without spokesperson or representative. Young neo-militants who, between happenings and creative modes of action, want to dust off the "official" alter-globalization. Paris-La Villette, Ladoumègue gymnasium, permanent. Justice One of the unifying links between the different union and associative components of the alter galaxy who campaign for more fiscal, social, economic, ecological, cultural justice, etc. Seminar, Bobigny, Henri-Barbusse gymnasium, Friday, 6 p.m. Kyoto (protocol) Originally very focused on the social and economic vision of globalization, social forums now give a large place to the environment. Even insufficient, the Kyoto protocol (on the reduction of greenhouse gases), still not ratified by the United States, is a symbol. Of unilateralism. Seminar, Ivry-sur-Seine, cinema quai d'Ivry, Friday, 2 p.m. Legal (team) Embryonic during the largest radical alter demonstration (in Prague, in 2001, against the meetings of the IMF and the World Bank), legal patrols have become systematic. The idea: to inform demonstrators of their rights in the event of arrest, to monitor the progress of the demonstrations to note possible violence. Paris-La Villette, Permanent workshop of civil resistance, Glad, Ladoumègue gymnasium. Microfinance One of the projects of the solidarity economy. An alternative savings system to banks that first developed in the countries of the South, then in rich countries. It affects 23 million people; 100 million expected in two years. Workshop, Ivry-sur-Seine, cinema quai d'Ivry, Friday, 6 p.m. No Vox Movement of the "voiceless". Homeless, unemployed, without social security, without papers... Like women, they have multiplied European marches since 1997. Once confined to the margins of the big alter masses, they are now (a little) better integrated into the debates. Even if they organize their own meetings on the margins of the forum. Plenary, Bobigny, Parc de la Bergère, tomorrow, 9 a.m. Opensource An alternative type of protection to patents on software and content. Opensource allows their free circulation on the Internet. But also the provision of manufacturing secrets in the case of software. Which allows them to be adapted as desired. This avoids being subject to the domination (and bills) of Microsoft. Paris XIe, Maison des métallos, permanent Medialab. Peace The war in Iraq marked the entry of peace movements into the alter-globalization movement. 600,000 people took to the streets at the first ESF in Florence last year. For the alters, war is the continuation by other means of globalization. Plenary, Saint-Denis, Stade de France, tomorrow, 9 a.m. Share Illustration of shaky global governance. The alters denounce, for example, the hegemonic positions of the major economic powers within the IMF. They advocate for a reform of the voting system of the Fund's board of directors: the United States holds 17.16% of the votes, compared to 1.16% for the 23 African countries. Plenary, Paris-La Villette, Saturday, 9 a.m. Regulation The alters oppose the omnipotence of market laws with a strong comeback of proactive economic policies. And greater coherence in the missions of major international organizations. International taxes, social or environmental standards are among the tools used to combat economic deregulation. Plenary, Paris-La Villette, Cité des sciences, tomorrow, 9 a.m. Sustainable (Degrowth) Economic growth does not bring happiness. Worse, it would ultimately jeopardize the future of the planet. It generates social inequalities. In 1992, at the Rio Earth Summit, the rule of the six "r"s was defined to trigger the virtuous circle of degrowth: reassess, restructure, redistribute, reduce, reuse, recycle. Plenary, Saint-Denis, Mandela stadium, tomorrow, 9 a.m. Transnationals (Corporations) They symbolize the dispossession of politics and the role of States. They would plunder the natural resources of countries in the South. Would ride on the low cost of labor to multiply outsourcing. Would infiltrate all international organizations. Seminar, Ivry-sur-Seine, Halle Venise, Friday, 2 p.m. (Concrete) Utopias Canceling the debt of Third World countries? A utopia. Setting in motion a global tax? A utopia. But there are more "realistic" ones. Workshop, Ivry-sur-Seine, Media Library, Friday, 9 a.m. (Participatory) Life From the neighborhood committee that sets up a pedestrian street to participatory democracy at the municipal level (with the vote of part of the budget), including the political parties that try to ride on the idea. Saint-Denis, Fratellini circus, tomorrow, 9 a.m. WikiThis is the most open form of a website possible, the most democratic to the point of chaos (sometimes): a wiki is a space on the Net where any visitor can modify information at will, publish what they want, when they want, from where they want. Objective: to break the hierarchical transmitter/receiver logic of traditional media. Paris XIe, Maisons des métallos, Metallos MediaLab, Saturday, 8 p.m. to 10 p.m. Xenophobia Initially, a common base, obvious. An inclusive, horizontal movement, the alters bring together all the defenders of minorities. Even if it means taking (and for the moment assuming) the risk of welcoming supporters of a zealous communitarianism. Seminar, Saint-Denis, l'Humanité, tomorrow, 9 a.m. Ya basta (Zapatismo) Or "enough is enough". Initially, a collective supporting the Zapatista movement of Subcomandante Marcos. Then the gondola of small movements which, from Italy to Spain via France, claim a "liberation" through "active resistance." Paris, Porte de Pantin, Glad, Jules-Ladoumègue stadium, permanent. Zone (of temporary autonomy) Or TAZ. Form of libertarian and festive insurrection whose objective is to temporarily invest a public space. Theorized by the American Hakim Bey, experimented by British neo-radicals such as Reclaim the Street, put into practice in Seattle by blocking streets. Paris, Porte de Pantin, Glad, Jules-Ladoumègue stadium, permanent.

## ###ARTICLE\_START### ID:253

TUESDAY 11 NOVEMBER trade unions Forum on the theme of "Europe open to the world", organized by the European Trade Union Confederation (ETUC) (Paris City Hall, from 2:30 p.m.) WEDNESDAY 12 NOVEMBER trade unions Continuation and end of the ETUC forum (Paris City Hall, from 9:30 a.m.) women European Assembly for Women's Rights (Parc de la Bergère, Bobigny, 9:30 a.m.-5:30 p.m.) Demonstration in the streets of Bobigny which will go to symbolic places of the fight for women's rights, such as the court where, 31 years ago, the trial of Marie-Claire took place, prosecuted for having an abortion. local authorities European Forum of Local Authorities (Maison d'éducation de la Légion d'honneur in Saint-Denis, 9 a.m.-8 p.m.) opening Opening ceremony of the European Social Forum (ESF) (Parc de La Villette in Paris, 6:30 p.m.; Place Jean-Jaurès in Saint-Denis, 6 p.m.; town hall gardens in Bobigny, 7 p.m.; Venise-Gosnat sports complex in Ivry-sur-Seine, 7 p.m.) métallosmedialab Workshops, meetings and debates on the theme of media and IT organized by alternative media players and defenders of free software (Maison des métallos, in Paris)

## ###ARTICLE\_START### ID:254

In the alter-globalization movement, young activists have invented a vocabulary, practices, and references. A short glossary with the help of Guérilla Kit, a work written under the collective pseudonym of Morjane Baba, which has just been published by La Découverte. Bloc: in a demonstration or action, a gathering of several affinity groups that share the same political color, the same tactics, or the same costumes. Depending on the alter-globalization demonstrations, blocs have been pink, pink and silver, clown (with red noses), or black. Self-managed cuisine: an activity that is now at the heart of the “new practices” of the alter-globalization movement. Intergalactic villages, and especially anarchist ones, popularized the concept in Annemasse, during the rally against the G8 in Evian in June 2003. Ewoks: name of the small furry characters from George Lucas' film Return of the Jedi (the last episode of the Star Wars saga) that the protesters gave themselves during the G7 meeting in Kananaskis, Canada, in the Rocky Mountains. The Ewoks practiced forest guerrilla warfare against the Stormtroopers, the troops of the Empire, in the forest of Endor. GNU Linux: computer operating system widely used by activists to contest the quasi-monopoly of Microsoft, with its Windows system. Hacktivism: "Unconventional use of the computer that aims to improve its social, political and cultural usefulness for the world." Contraction of hacking and activism. Describes, for example, the computer enthusiast who spends nights writing lines of program for free software. Intergalactic: the reference is borrowed from the Zapatista movement of Subcomandante Marcos. According to the texts, the intergalactic unites "those who resist in an informal, horizontal and non-hierarchical network". Multitudes: a notion borrowed this time from the Italian philosopher Toni Negri, very fashionable in alter-globalization circles beyond the Alps. According to the press releases, the multitudes can be "on the march against the Empire in Genoa in July 2001", or more modestly "against McDo", during gatherings in front of this or that restaurant on strike. This notion gives rise to a lively theoretical debate between Marxist thinkers. Considered a postmodern concept, the term "multitudes" in fact abandons the centrality of the working class and the worker. An ESF seminar will also be devoted to the theme: "Multitudes or working class?"

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Divine will has scattered men because they wanted to build a tower to the sky, and has imposed on them the obligation to no longer speak the same language. The Internet has brought them together, and allowed them to change their ambition: to weave a horizontal network of interpreters, capable of mobilizing throughout social forums, global or European version. Contrary to biblical dogma, linguistic diversity has become an opportunity to unite several hundred interpreters and translators since the European Social Forum in Florence in 2002. There are nearly 300 volunteers who roam workshops and places of exchange to tirelessly translate each other's words. Among themselves, they call themselves "babelitos", "babels"; At the end of the journey, it ends with a "babelista and benevolista fiesta", as Isabel, a young Spanish interpreter, one of the Babels coordinators for the ESF 2003, sums it up. Commitment will also be found there: "Interpreting becomes an act of militancy." In one of the rooms of the ESF headquarters, hundreds of meters of cut string for badges, piled up next to piles of cardboard for documentation, Laurent Jesover, former webmaster of Attac, Isabel, just twenty, and Guillaume, approaching sixty, do the math: 4,000 interpreters listed in their database, 975 who will be available between Saint-Denis, Bobigny, la Villette and Ivry. Some of them come from Brazil, an American university campus, European organizations. And 800 of them housed. Beyond logistics, concepts must be handled, and the boundaries that remain must not be forgotten: in French, the "alters" are done, everyone understands; in Spanish, we stick to the "anti". The word "volunteer" does not exist in German, an equivalent must be found. And this is important, because the prospective interpreter of the ESF has no doubts about his mission: he knows that he will not have to count his time. In the fundamentals of the ESF language, there is "solidarity": in the translation of babels, this means organizing a bus trip across Italy, at night, to arrive in Paris, "because it costs less and it allows us to finance the travel of the Brazilian interpreters". The interpreter-activists are not at will: they have a choice of territory (linguistic) and center of interest so as not to find themselves translating subjects that are too far removed from their tastes. The activist-interpreter, the babelito when he is conquered develops his practice: since Florence, there are a certain number of them who have put their skills at the service of associations in search of international development, but without means. Five official languages, but 21 languages translated, 30,000 headsets available: that's already not bad, but, for the next Forum, Laurent Jesover hopes to have a nomadic translation tool, a mix of digital and WiFi (wireless) techniques. In alliance with the defenders of free software. The Babels-labeled interpreter is supportive but not archaic. The ESF network of interpreter-translators

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He helped launch the PC revolution with his famous Lotus 1-2-3 spreadsheet. Today, with his Chandler project, Mitch Kapor is preparing to bring a new revolution to the personal computer. Aside from those who work closely or loosely in the new technology sector, few people can claim to know the name Mitch Kapor. However, Kapor largely contributed to launching the PC revolution by introducing the Lotus 1-2-3 spreadsheet on the nascent PC platform in 1982. To give an idea of the impact that this software had, it is enough to recall that in those glorious times, when the very notion of a Windows-style graphical interface was still an object of curiosity in the Xerox PARC laboratories, most companies did not buy a computer. No, they wanted, above all, Lotus 1-2-3. After selling his company shares, Kapor left the software world for good in 1990 and instead began a career as a technology activist, co-founding the Electronic Frontier Foundation (EFF), a nonprofit dedicated to protecting basic civil liberties online. Of course, Kapor couldn't help but grow his wealth by investing in tech startups that have now become major players on the Internet. Does Real Networks ring a bell? Open-source productivity Yet, as odd as it may seem, given that it was proprietary software that helped make Mitch Kapor rich, very rich, it was the rise of open-source software and Linux that pushed Kapor back into the tech spotlight and launched his project called Chandler. Realizing that all productivity software packages like Outlook and the like are difficult to approach, while not really meeting the needs of their users, Kapor decided to come out of his golden retirement and invest again time and money to redefine what a real productivity software should be, knowing that today, connected people are falling under the enormous weight of information coming to them in all forms. Surprise, however! Instead of doing what any other businessman would have done, that is to say, create a company and hire a few star programmers-creators, Kapor decided to follow his instinct, betting five million of his personal fortune to set up a foundation dedicated to developing a product intended to be ahead of all other existing software packages, while adhering to the principles of Open Source. For Kapor and his team, which includes daring creators like Andy Hertzfeld, a key member of the original team of developers of the Mac and its operating system, the Chandler project must completely rethink how the computer and its operating system present information to humans, but above all, how humans interact with it. Already in the past, Kapor and his team at Lotus Development had introduced a product that was way ahead of its time, the Agenda software, an information manager offering features so avant-garde that some have only just appeared in recent software. Ambitious specifications In short, with this distant lineage, it is logical to believe that Chandler's specifications will be ambitious. And it is, believe me. Kapor and his team of creators want nothing more and nothing less than to explode the barriers imposed by current user interfaces and to present and manipulate information according to its context of use by reorganizing the desktop according to the type of information manipulated or according to the projects in progress. One of the solutions recommended by the Chandler development team? The use of intelligent agents, software tools preprogrammed to accomplish certain tasks. It goes without saying that Kapor's project is a colossal challenge, particularly for a foundation with such a small number of creator-programmers. Many people in the industry also express their skepticism about the scale of the project. Building on the concepts that made logiciellibre successful, namely that a community interested in developing a product knows much more than two or three programmers, no matter how good they are, Kapor decided to publish the source code of Chandler, and this, from the very beginning of the project, after the initial conceptualization phase. Obviously, the question that everyone is asking is: will the creators of the Chandler project succeed in seeing the light at the end of the tunnel and introducing a final version of the product by the end of 2004, the deadline that Kapor has set for themselves? And above all, will the initial enthusiasm of the community following step by step the efforts of this team of creators be enough to allow small businesses to see the light of day by offering personalized services by reusing the Chandler source code which, by the way, should work on all platforms, namely Windows, Mac and Linux? For all free software aficionados, the stakes behind the possible success of Chandler go much further than the simple publication of a software package, however revolutionary it may be. It could also prove that developing software in "free" mode can also be profitable. On condition that you agree to reinvent your business model.

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We didn't expect this new version of the Druide Informatique writing assistance software package at all. However, after a few days of using it, we couldn't do without it, even if, according to its designers, using it doesn't make you the new Proust. In addition to its revised and corrected analysis engine with a whole bunch of voracious enzymes that examine a text to be revised three times faster, the great new feature of the new Antidote lies in its Prism module, a pure marvel that has surely haunted the wildest dreams of a whole generation of writers and proofreaders. Prism uses the corrector's analysis to intelligently reveal the multiple workings of a text. Pragmatic (who, when, where, how much), logical (hinges, quotes), style (repetitions, dull verbs) and others: a hundred filters highlight the key passages of the text to quickly assess its accuracy, relevance and distribution. And that's not us saying it, but them. However, we can say, without fear of being wrong, that no other writing assistance software package offers as much to its customers. Like many converts to Antidote Prisme, we applaud the inclusion (finally!) of an antonym dictionary and we are delighted that it is possible to do a search by wildcards (the word is wildcard in the Druide's dictionary, its definition being: "Character that allows one or more other characters to be replaced in a command, a search or a query"). In addition, Antidote Druide recognizes new spellings and processes them according to the settings chosen by its user. Still available in Mac and Windows versions, Antidote Prisme integrates with many software packages, including the brand new MS Office 2003 suite and the free Open Office software.

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With the OpenSource wave continuing to sweep across many government departments around the world, it seems that the Microsoft we know today is doomed to radical change or perish. Bold? To predict that one day, in ten or fifteen years, what is now the most dominant company in the software industry will be a mere memory? And yet. Who still remembers a company called Lotus that helped bring the PC into the world and, by extension, Microsoft? Who remembers AstonTate, publisher of what was until recently the standard, the dBase database? And who would have bet in 1995, less than 10 years ago, that the music industry would be in crisis? Today's world is moving faster and faster, and what was the standard yesterday is often now just a memory. Suite or system However, it was following Microsoft's invitation this week, during the presentation of the new Office 2003 suite, that this observation became clear to me. A big chunk, the new Office 2003 suite. A magnificent office suite. To tell the truth, no. It seems that we can no longer speak of an office suite here. By the admission of Microsoft's managers, we should rather describe Office 2003 as a system. A collaborative work and exchange system. A system that integrates a very controversial digital rights management mechanism. A system designed to take advantage of a 100% Microsoft environment. Which is directly harnessed to the Windows Server 2003 server operating system as well as to several other server applications. A system created to drive out the competition. However, in companies as well as in public administrations, the trend that is asserting itself consists more and more in having open systems, which can communicate easily and without complications with the greatest possible IT biodiversity. In short, whether it likes it or not, Microsoft is facing this trend, and the surge in open source and open standards will do nothing to help the Redmond giant. Ignorance And how is Microsoft responding? By ignoring the signals that consumers are sending it, and by displaying its total ignorance of the very foundations of the open source philosophy. Last week, at the annual symposium of the consulting firm Gartner, Steve Ballmer, Microsoft's president, gave a speech in which he essentially declared that he did not understand why software packages written by a community of people who have nothing in common except a passion for coding, could surpass software professionals like Microsoft, whose sole mission is to produce the best software possible. "We have a plan of action, we know and we know what consumers and businesses want, they know where and when to join us." Bullshit! As columnist Bob Cringely rightly stated, Ballmer has absolutely no understanding of Open Source, and he tends to confuse the passion of the Open Source community to produce the best software possible with the desire of its programmers who, supposedly having no choice in an increasingly competitive market, are practically forced to put their heads on the chopping block. One only has to read the various interviews with Linus Torvalds, the putative father of the Linux operating system, to realize the opposite. Tolvalds has repeatedly rejected a contribution from a collaborator because it did not live up to his (very high) expectations and did not offer the guarantee of quality and security that he expects. Torvalds, even more than anyone, is obsessed with the quality of the Linux operating system, to the point of refusing compromises that are offered to him in order to promote the accelerated deployment of Linux on the desktop. And besides, for members of the free software developer community, there is no commercial pressure to release the next version of a product at all costs. Slowly, slowly, but surely. Loss of productivity However, despite all the possible acts of contrition, Microsoft cannot make us forget that it is because of the weakness of its operating system and its propensity to overwhelm consumers and corporate network managers with its multiple patches that many virus alerts, responsible for hundreds of millions of "damages" in lost productivity and time to restore systems, have occurred. The fact that the president of Microsoft is sheepish (once is not customary) and swears to anyone who will listen that security is today the primary concern at Microsoft, will not make us forget all the problems that its customers have had to face. Customers who, by the way, have always paid top dollar to acquire its products. Unfortunately for Microsoft, a machine has started moving. When the trust of a consumer, a company or a public administration is shaken, it is rather difficult to regain it. All the more so, once again, when you pay a lot of money for supposedly the best products and you enjoy a quasi-monopoly situation. Although there are countless companies, often very large corporations, that now trust free software and recognize the virtues of free standards and interoperability, it is now public administrations from all over the world, and the world of education that are beginning to react. Guide For example, this week, the European Commission published a guide to help public administrators migrate to OpenSource. Based on past experiences and several studies published on the subject, the IDA OpenSource Migration Guidelines are intended to be a very practical tool to help public administrators plan a smooth migration from proprietary software to free software. In short, it covers a wide range of issues and very real situations, while offering a range of solutions to move from Windows or any other proprietary operating system to a completely free environment. The same is true in the world of education. Currently, in Quebec, several partners have come together to develop the Mille project. In collaboration with the Centre de recherches informatique de Montréal, three Quebec school boards and the RESCOL network want to demonstrate that free software can be a viable and economically advantageous choice. And the project is going well. After a first stage where the partners unveiled a report on the state of the situation, including a complete inventory of all free software relevant to the project, as well as a description of all licenses, the next phase will focus on the large-scale deployment of an infrastructure entirely designed in free software. However, these are only two examples among many others. What about the initiative of Japan, South Korea and China, this emerging titan, who have decided to form a partnership to develop their own version of a free operating system to be used in their respective public administrations. Honestly, and perhaps I am wrong, but I perceive Microsoft's latest initiative, to create this almost closed environment, as a desperate attempt by the Redmond giant to slow down the rise of Open Source. In short, unless Microsoft seizes the opportunity, I estimate that it will take them two to three years to radically change their business model (and they have proven in the past that this is possible with the Internet shift). In 10 to 15 years, the Microsoft we know today will no longer be the same; or perhaps it will have ceased to exist. Anyone take a bet?

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THE IDEA OF A CALIFORNIA that has become “normal” again makes one smile. It is the quintessentially unpredictable American state. It invents mind-blowing products, behaviors, and political principles, as illustrated by the recent election of Arnold Schwarzenegger to the post of governor. However, reading the newspapers and talking at Starbucks, one gets the impression that the great crisis has passed and that Californian society is returning to its familiar form. In September, everyone was engaged in the battle over the recall of the governor, but San Francisco was especially passionate about a bicycle race in which Lance Armstrong attacked the city’s famous hills. Meanwhile, in Berkeley, a football match (the real one, “soccer”) pitted the communist team of the Left Wing club against that of the anarchists of the Kronstadt Football Club, who wore a black star on their jersey. The anarchists won 4 to 2... In Pasadena, near Los Angeles, engineers at the Jet Propulsion Laboratory ordered the Galileo probe to crash into Jupiter's atmosphere, for fear that it might contaminate Europa, one of the giant planet's satellites where NASA hopes to one day discover a form of extraterrestrial life. The battle for the environment dear to Californians is now being played out on the scale of the solar system! Lawyers, decimated by the recession and the Internet crisis, are finding their enthusiasm again because the dance of trials has started again: IBM finds itself in court facing SCO (Santa Cruz Operations), a Linux system specialist. I thought that everyone could modify and distribute Linux, by definition an open system, but we are discovering that old quarrels also haunt "free" software. Even the ground has resumed its path: a force 5 earthquake has reminded us that California is inexorably approaching Asia. The same is true in industrial reality: Fred Hoar, a famous public relations expert (he was the one who signed Apple's first campaign), tells me with a laugh that in Silicon Valley, "IC" no longer means "integrated circuit" but "India and China". It is above all the first stirrings of an economic recovery that are animating the conversations. A software publisher, Red Envelope, has just gone public. A typical company in the "dot-com" field, it has not yet reached financial equilibrium, which gives vertigo and a strong feeling of déjà vu to my venture capitalist colleagues: are we about to reinflate the famous IT bubble whose definitive burst all the experts had hailed? The fact is that unemployment remains high (above 6% for the whole state, around 8% for Silicon Valley) and that large companies like HP and Sun Microsystems continue to reduce their workforce, while relocating production to Taiwan, Singapore, China or Malaysia. Conversely, business creation has picked up sharply, which is not yet reflected in employment statistics. The important thing is that real estate has held up. The drop in rates has allowed hundreds of thousands of people to refinance their homes, freeing up considerable sums of money. Others have taken advantage of the opportunity to buy a house or apartment. A comparison of the figures for August 2003 with August 2002 shows a 34% increase in sales for the San Francisco region, with a 7.3% increase in the median price. Scalded by the excesses of recent years, Californians are hoping that the end of the crisis will be smooth. For once, they would like life to be normal. Even if their reputation as innovators must suffer.

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While times remain uncertain for telecoms and look a little better for IT, the IT services sector is clearly doing better and better. In fact, a study conducted among 500 IT firms by TechnoCompétences, the sectoral committee for information and communications technology workforce, raises the specter of a shortage of specialized workers that could affect a quarter of them. Among the most sought-after professions today are programmers, computer engineers and business analysts. This study also reveals a significant gap between the salary expectations of candidates and the current financial means of companies, since these are well below what they were during the crazy years of ICT. It would therefore seem that a certain proportion of ICT workers are still living "in their bubble." In fact, companies still have the best role when it comes to hiring. They are in no hurry and are very demanding in terms of both know-how and experience. Gone are the days when mastering an HTML or Photoshop editor opened all doors... which closed six months, a year or two years later. We now want programmers who are able to master several languages and who have several years of experience. Even if it means being patient, if necessary. In this context, can we talk about a war of attrition? Yes. But a war that benefits companies that, according to the TechnoCompétences study, prefer to use passive recruitment methods: posting positions on their websites and word of mouth. As for programmers, they are much less rare than they were a few years ago. On the other hand, it is more difficult to find a technician who is able to take initiatives and build customer relationships, or even manage a project. The problem is the same for many SMEs in the industry. For example, Mr. Christian Roy, head of human resources at De Marque Inc., a software publisher in Quebec City, prefers to hire a candidate only after an internship, in order to ensure that the candidate can integrate into the company culture and that he or she actually has the required skills. Many companies in the ICT sector are adopting the same strategy. In remote regions, however, the recruitment problem is more acute. For example, at Premier Tech in Rivière-du-Loup, they have to "cast their net wide" to fill vacant positions in the R&D and "business intelligence" sectors, i.e. Enterprise Resource Planning (ERP) systems. Movements on all fronts Despite sustained growth since 2000, e-commerce generated less than 1% of the total revenues of Canadian companies in 2002, according to Statistics Canada. Even more worrying: 7 out of 10 companies have stopped selling their products online. A recent study by the Canadian Electronic Business Initiative (CEBI) even indicates that sales are stagnating in the field of Internet business solutions (IBS). On the other hand, "business intelligence" and ERP (Enterprise Resource Planning) integrated management systems are all the rage in companies' internal networks, so we can expect a considerable increase in server sales. Other areas are also doing well, including electronic document management (EDM) and mobile (wireless) business solutions. In addition, given Microsoft's onerous license renewal policy, the sector is expecting a significant breakthrough in free and open source software and systems. A lot of work ahead for programmers and engineers! While it is true that many companies have had to make serious rationalizations in recent years, the fact remains that information and telecommunications technologies are spreading to all sectors of economic activity. We could even say that they are "cannibalizing" the available workforce that was traditionally associated with "pure and hard" ICT. In fact, TechnoCompétences even believes that the number of graduates with a second and third cycle in computer science will have to be doubled if we want to meet all the needs. After many others, this is the ultimate piece of good news, both for workers and for businesses! Companies that are recruiting - Cirque du Soleil www.cirquedusoleil.com - Ericsson Canada Inc. Fax: (514) 345-6103 - Bell Family www.bell.ca/jobs - LGS Group, an IBM Company rh\_mtl@lgs.com Fax: : (514) 861-3832 - Premier Tech www.premiertech.com opportunites@premiertech.com - Corporation Recruitsoft Canada Inc. www.recruitsoft.com/fr info@recruitsoft.com - Rogers AT&T Wireless Communications www.rogers.comalain.chamber lain@rci.rogers.com - AD OPT Technologies Inc. www.ad-opt.com hum-res@ad-opt.com - TELUS Québec www.telusquebec.com - Dassault Systèmes Inc. cv@ds-ca.com - DMR Conseil www.dmrconseil.ca - GIRO Inc. cv@giro.ca - CGI Group Inc. recrutement.cgi@cgi.com - Harris Canada Inc. rhmtl@harris.com - iXmédia Fax: (418) 653-8293 - Nexxlink Technologies Inc. kharvey@nexxlink.com - NORDIA Inc. www.nordia.ca - Sogique Inc. rhsogique@ssss.gouv.qc.ca Visit the Monemploi.com website for complete company contact information. This text is an excerpt from the "2004 Employment Guide" published by Septembre éditeur (editions@septem bre.com).

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The information technology and telecommunications (ICT) sector, fueled by speculation, had accustomed us to contagious optimism. After a series of setbacks that culminated in 2000-2001, these companies, which prided themselves on constituting a "new economy," had to return to pragmatism. For them, "the ice remains thin" because of the persistent depression in the telecommunications world, but certain signs may herald less gloomy days. Nortel, like other large Canadian telecommunications companies such as BCE and Microcell Technologies, is returning - albeit modestly - to profitability. For their part, BCE and Telus have also noted that the stock markets now seem less fearful of any investment in this over-indebted sector. Although the recovery is slower and more hesitant than expected, the fact remains that the business horizon is still expanding with the convergence of mobile solutions and Web services. This "inter-application" integration is growing rapidly in the United States, according to Gartner Group, the well-known reference organization. One thing is certain: the crisis will have served to distinguish, among companies more closely associated with information technologies (IT), the weak from the strong. Now, technologies are evaluated less according to their estimated potential than according to their medium-term profitability. Conversely, companies operating in the field of precision instrumentation are showing a better health record. This is the case, in particular, of the company Andromed, which may have tripled its workforce before the end of the year thanks to the development of its electronic stethoscopes. Candidates still in their bubble While times remain uncertain for telecoms and look a little better for IT, the IT services sector is frankly doing better and better. In fact, a study conducted among 500 firms by TechnoCompétences, the sectoral committee for workforce in information and communications technologies, raises the specter of a labor shortage that could affect a quarter of the companies in the sector. Among the most sought-after professions today are programmers, computer engineers and business analysts. This study also reveals a significant gap between the salary expectations of candidates and the current financial means of companies, because these are well below what they were during the crazy years of ICT. Ms. Hélène Lafleur, head of human resources at Cedrom-SNI, deplores the "shopping" practiced by programmers. It would seem that a certain proportion of ICT workers still live "in their bubble". In fact, companies still have the best role when it comes to hiring. Gone are the days when mastering an HTML or Photoshop editor opened all doors... We now want programmers who are able to master several languages and who have several years of experience. Even if it means being patient, if necessary. Companies also prefer to use passive recruitment methods: posting positions on their websites and word of mouth. Programmers are much less rare than they were a few years ago. On the other hand, it is more difficult to find a technician who is able to take initiatives or even manage a project. The problem is the same for many SMEs in the industry. Christian Roy, human resources manager at De Marque Inc., a software publisher, prefers to hire a candidate only after an internship, to ensure that the candidate can integrate into the company culture and that he or she actually has the required skills. Many companies adopt the same strategy. In remote regions, however, the recruitment problem is more acute. For example, at Premier Tech in Rivière-du-Loup, they have to "cast their net wide" to fill vacant positions. Movements on all fronts Despite sustained growth since 2000, e-commerce generated less than 1% of the total revenues of Canadian companies in 2002, according to Statistics Canada. Even more worrying: many companies have stopped selling their products online. On the other hand, "business intelligence" and Enterprise Resource Planning (ERP) integrated management systems, dominated by SAP, Oracle and Peoplesoft, are all the rage in internal corporate networks, so much so that we can expect a considerable increase in server sales. Other areas are also doing well, including electronic document management (EDM) and mobile business solutions. In addition, given Microsoft's onerous license renewal policy, the industry is expecting a significant breakthrough in free and open source software and systems. Lots of work ahead for programmers! While it is true that many companies have made serious rationalizations in recent years, the fact remains that IT and ICT are spreading to all sectors of economic activity. TechnoCompétences even believes that the number of university graduates with a second and third cycle in computer science will have to double. Companies that are recruiting: Cirque du Soleil www.cirquedusoleil.com Ericsson Canada Inc. Fax: (514) 345-6103 Bell Family www.bell.ca/jobs LGS Group (IBM) rh-mtl@lgs.com Fax: (514) 861-3832 Premier Tech www.premiertech.com opportunites@premiertech.com Recruitsoft Canada Corporation Inc. www.recruitsoft.com/fr info@recruitsoft.com Rogers AT&T Wireless Communications www.rogers.com alain.chamberlain@rci.rogers.com AD OPT Technologies Inc. www.ad-opt.com hum-res@ad-opt.com TELUS Québec www.telusquebec.com Dassault Systèmes Inc. cv@ds-ca.com DMR Conseil www.dmrconseil.ca GIRO Inc. cv@giro.ca CGI Group Inc. recrutement.cgi@cgi.com Harris Canada Inc. rhmtl@harris.com iXmédia Fax: (418) 653-8293 Nexxlink Technologies Inc. kharvey@nexxlink.com NORDIA Inc. www.nordia.ca Sogique Inc. gique@ssss.gouv.qc.ca Visit Monemploi.com for complete company contact information. This text is an excerpt from the 2004 Employment Guide published by Septembre éditeur (editions@septembre.com).

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With the killing of GIRES, the Quebec government is back to square one. However, let's not kid ourselves, whatever future computerization project the government implements will cost just as much, if not more, than GIRES. For almost all Western governments, the race to computerize and implement online public administration or online government responds to a need to simplify citizens' lives, but above all, to save money. Save money. A simplistic and, above all, unachievable vision. Let's take GIRES, this megaproject intended to unify the government's multiple (often obsolete) computer systems. Now that, 200 and some million dollars later, we are back to square one, this does not mean that the next major project proposed by the Treasury Board will be cheap. Quite the contrary. Have no doubt about it, it will cost much more. And yet, it is not certain that the leaders in place will really pay the price. Because there is a price to wanting to computerize a government. And it is not evaluated solely in terms of hardware and software. Indeed, for communications professor Michel Cartier, the price to pay is light years away from hardware. "Are we ready to put the means into it in terms of culture, training and information architecture? Do we have a vision of what a real online government could be? Everyone sees IT as a tool, but the arrival of the Internet has significantly changed the situation. In our disrupted society, the Internet is increasingly an important driver of change." One only has to see how interest groups have seized the network of networks to understand Cartier's words. The anti-globalization movement, the many pressure groups, and even aspiring candidates for the presidency of the United States. All are making full use of the possibilities offered by the Internet. In short, an online government, a true e-government and not just an online public administration, will have to take the risk of opening up much more to its citizens. For Cartier, "the time when a government portal only provides information is over. Yes, it is important to inform citizens, but if we want to avoid democratic stagnation, it is also time to give them a voice again. To take the risk of starting a real dialogue with them. The Scandinavians took this fine risk, with undeniable success." For government employees, the arrival of these large systems can also be a source of concern. In addition to the fact that many see computerization as a way to abolish (again) positions, others note (rightly) that, very often, the implementation of such systems is done while neglecting the most basic notions of training. Let us recall the famous Marois plan for the computerization of Quebec schools. Tens of millions invested in hardware, but barely a few crumbs for teacher training. A disaster? Certainly, when we know that, in several schools, many computers have remained unused, due to a lack of trained teachers. Let's not repeat the same mistake with what will undoubtedly be a colossal project in the coming years: do not neglect training, because after all, it is not the President of the Treasury Board who will have to keep the machine running. For Cartier, the examples to follow are without a doubt the American portal FirstGov or the Canadian government's "online government". A well-implemented information architecture strategy, investments made in the right places, the principles implemented by their leaders are to be remembered: - simplicity above all, the good old KISS principle (keep it simple stupid) so dear to Americans; - react quickly to events and political pressures; - if your proposal is not clear, communicate, communicate, communicate. And when in doubt, start again; - you must have the support not only of the highest level of administration, but also of those who will have to operate the machine; - always remember that any government project, even if it is intended for the general public and is totally apolitical, is and remains a political project; - the fewer people you upset, the less resistance you will have; - always allow for the WIIFM (what's in it for me) factor. However, the failure of GIRES highlights the use of very expensive proprietary software packages such as Oracle, which force the government to subsequently do business with a single supplier. Let us remember that the Treasury Board is the true guardian of public data. The free use of this data must above all not be linked to the use of a software package or a contract given to a company? "An important issue," says Michel Cartier, "even more than the interoperability of systems, will be the implementation of mechanisms using open standards. One way to achieve this will be to examine the solutions offered by open source software, which almost all use open standards." To meet these challenges, it is essential to have the right person in place. In this respect, we must applaud the decision of the current government to appoint, like the federal government, a true Chief Information Officer (CIO), in the person of Robert Desbiens, a former Vice-President of Cisco Canada. Just like the President of the Treasury Board of the Canadian government, who had the presence of mind to appoint Michelle D'Auray as Chief Information Officer to manage (successfully) online government services like a business, the President of the Treasury Board of Quebec is fortunate to have someone who is very aware of the cultural, technological and economic issues involved in setting up an online government and the computerization of the State. It remains to be seen whether Mr. Desbiens will seize the opportunity offered to him to join and even get ahead of other e-government initiatives. He may succeed if he can make his bosses understand that the technological megaproject he is preparing to set up will not cost less than the previous one.

## ###ARTICLE\_START### ID:263

Axentra, a firm located in Hull, is launching its Rumba personal server this week, a product that should make a lot of noise in the coming months. Designed to meet the multiple needs of self-employed workers and small businesses, this device is the first in a series that will allow anyone to have their own server, without having to be an IT specialist. How many times have I received this email from self-employed workers, very well connected by the way, and using the latest technologies to the maximum, asking me what the costs were related to obtaining and installing a server at home. Indeed, many are those who express the desire to free themselves from the services offered by their Internet service provider. As a matter of image, it is much more elegant to present a business card with an email address, essential these days, linked to a domain name of your own. Between mr\_machin@unfournisseur.com and votre\_nom@votrecompagnie.com, having your own domain name indicates the seriousness of your business. In short, the only choice available to our self-employed worker was to take the steps to register his domain name and do business with a hosting provider. Of course, there was always the option of having his own server at home, but only people who were computer geeks could afford such a luxury. However, ask these people if they could do without this tool. All of them, without exception, will tell you: a server at home is eminently practical. After all, having your own server allows you not only to have your own website, but also your email server, to share printers, to connect all the computers in the house and to save all the files in one place. Axentra Rumba A little smaller than a dictionary, elegant in its immaculate livery, the Rumba server from Axentra has something to attract attention. However, it is its characteristics that should greatly interest self-employed workers and micro-businesses. Simplicity, simplicity, simplicity. It is impossible to describe the startup mechanism of this lightweight server (personal server appliance) in any other way. In less than five minutes, and by answering a few questions that do not require any technical knowledge, an Axentra server can take its place on a local network. Even the daily administration of this server does not require any particular technical knowledge. Creating a new user, reserving an area on the hard disk where he can save his files and giving him an email address only takes ten seconds. However, at the heart of this server, beats the heart of a... Penguin, Linux, the free and open source operating system, a software package that has never been recognized for its user-friendliness in such applications. However, the Axentra developers have succeeded in this challenge of completely isolating the user from the complex mysteries of server configuration. A simple browser allows you to fully manage the Rumba server... or to access it remotely. And this is where the Axentra white box shines the most. Remote Access Suppose you are traveling far from your workplace and want to check your e-mail. Just like many people do with Hotmail-like webmail, you can remotely access your Rumba server and read and respond to your virtual missives. If that were all it took, for many traveling workers, the investment in a lightweight server would be worth it. However, Rumba goes much further. By pointing your browser at a specific Internet address, you can access the contents of your server's hard drive. It is thus possible to browse through directories and retrieve one or more files that, oops! unfortunately, you forgot to save on your laptop. You need to send an important file to someone, but it is too large, and your correspondent's e-mail service won't let it go through? You just have to upload it to a public area of your server and tell the person to come and get it himself. Still using a simple browser, nothing more, nothing less. In short, you will have understood that such a server allows you to access your email and files anywhere and at any time. A new milestone Revolutionary, Rumba? No, not at all. However, this one marks a new milestone in the evolution of home networking. No doubt that the software concepts of Axentra's white box will be taken up by others. No doubt that several manufacturers will want to take up this brilliant idea of a lightweight personal server. Today, Axentra is the first server designed for the self-employed worker and the micro-enterprise, and this small head start that it gives it by being the precursor should allow it to improve its product and to decline it in several other markets. - Axentra Rumba www.axentra.com \*\*\* Under the hood Although Rumba succeeds wonderfully in isolating its owner from the throes of complex server administration, it is still worth taking a look under the hood, just to learn a little more about the beast. Inside the Rumba lightweight server, there is nothing amazing: a simple small motherboard, RAM and a 40 gigabyte hard drive. At the back, several connectors allow you to connect an external hard drive, a printer, computers and multiple digital peripherals. However, it is the integration of server applications that is impressive. Indeed, despite its small size, the Rumba server can serve as: - Web server - Email server - File server - WebDav server - Print server In addition, it integrates a firewall, domain name configuration tools (DNS), a DHCP server to assign addresses to all computers on the network, an anti-spam server (SpamAssassin), and powerful Web publishing tools as well as other administration and remote access tools. Finally, whether we are on a dedicated Internet link, or our access goes through a cable modem or high-speed telephony, the Rumba server accommodates all these access methods very well.

## ###ARTICLE\_START### ID:264

We erase everything and start again. The Ministry of Culture's website was a fairground of unfindable content. Since Wednesday, institutional information has been on culture.gouv.fr, while the general public points their mouse at culture.fr. To "give a new and decisive boost to the cultural Internet", as Jean-Jacques Aillagon wanted, the portal lists 5,000 sites, 13,000 events and aims to be the gateway to 600 museums and 170 festivals. The figures do not reflect the qualitative leap: the new site, concocted by two teams, one specializing in databases, the other in intelligent interfaces, is elegant, sober, practical and prolific. Culture.fr offers a range of possibilities, by region, by sub-sections (archi, heritage, music, children, etc.), all via an efficient search engine. The effort is not just one-off: a steering committee composed of associations, ministry officials, cultural affairs departments and public institutions (Bnf, CNC, etc.), and industry players (Synesthésie, Artfactories) will meet several times a year to enrich the content. Another guarantee of "freshness", the site is open source, allowing decentralized collaborative publication. The cherry on the cake, a "surprise of the month" for digital creation enthusiasts: the visual artist Bernard Joisten begins (without much originality) with A la trace.

## ###ARTICLE\_START### ID:265

While the Apple Expo has just closed its doors, attracting some 70,000 visitors, the Macintosh manufacturer confirms that it remains one of the most innovative players in personal computing, as proven in particular by the super-powerful PowerMac G5 or the elegant PowerBook laptops. However, only 2 to 3% of computers in the world are Macintoshes... So, to regain precious market share, Apple has decided to focus as much on its range of hardware as on its new operating system, Mac OS X. Because it is not just about selling computers to regular customers. It is also necessary to attract users of competing products. The third edition of Mac OS X, which will be launched in the coming days, perfectly illustrates this strategy: not only is communication intensifying towards Windows users, but it is now also targeting Linux users. First Windows. For several months, Apple has been providing all sorts of documents intended to reassure PC users who might be tempted by the Mac. They are explained how to network a Mac to a PC and exchange files from one to the other, what are the solutions for using PC peripherals on a Mac, or what software works on both types of computers (Excel, Word, etc.). Some new features in the Mac OS X 10.3 interface also demonstrate the desire to get closer to Windows users: layout of icons in browser windows, on-the-fly user switching, etc. There is even talk of integrating an emulation program that will allow Windows software to be run! Linux now. Apple has understood that the emergence of this operating system could serve its interests: more and more users are becoming familiar with a variation of Unix, so Mac OS X is an alternative. Even though the core of the system is different (Mac OS X uses in particular FreeBSD-based Unix extensions and commands that are different from Linux), both protagonists can use a number of identical programs, particularly those that come from the free software environment. Of course, Linux runs on almost any type of computer, while Mac OS X is only available for Apple computers. And the former is free, while the latter must be purchased. But Apple makes other arguments: its graphical interface remains a model of its kind and integrates perfectly with the operating system. For its part, Linux does not yet have a standard environment that is as reliable and ergonomic. On the technical side, this offensive is based on a few innovations that are gestures aimed at Linux users: Mac OS X will now offer most of the programming interfaces for Linux, its default command interpreter is the Bash program installed as standard in Linux, and in addition to the usual applications, Apple now provides the X 11 interface, which allows the use of many applications for Linux (GIMP, OpenOffice, etc.). All these initiatives intended to strengthen the weight of Mac OS X naturally add to Apple's traditional arguments (aesthetic hardware, ease of use, adaptation to all forms of digital entertainment). But it seems that the main obstacle to the progress of its system actually comes from its own customers who are still hesitant to abandon the old version of Mac OS (Mac OS 9). According to recent estimates, only a quarter of Macintoshes in circulation use Mac OS X! Ultimately, the challenge for Apple may be to convince these diehards...

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## ###ARTICLE\_START### ID:267

While this week, the Quebec government will make public its position on open standards and free software, Linux-Québec is changing its name and intends to unite the free software enthusiasts in Quebec. Many promoters of free software realize that the issues related to its adoption are much more than simple technological issues. Free software is no longer the preserve of "geeks". Public administrations as well as companies from all over the world have decided to leave the world of proprietary software packages to migrate to Open Source. Aware that this movement in favor of free software is not a flash in the pan, the administrators of Linux-Québec have decided to take the bull by the horns and change the name and mission of what was previously a friendly association of people sharing a common passion in favor of a duly incorporated association whose goals and objectives differ significantly from the original mission of Linux-Québec. Since July 14, Linux-Québec has changed its name to become the Association québécoise pour la promotion de GNU/Linux et des logiciellibres (AQP3L), an organization dedicated to promoting activities related to GNU/Linux in Quebec in addition to serving as a dynamic link between the different user groups. In short, the AQP3L is becoming a unifying organization, even if its president, Maxime Bouffard, prefers to use the word unifying. Working together "We are not here to take anyone's place. Rather, we want the driving forces of free software in Quebec, and there are many, to unite and work together to promote what will be a major issue in the technological world in the coming years." For Maxime Bouffard, the adoption of free software by public administrations as well as large companies represents the next big challenge for OpenSource evangelists. "And to do that," Bouffard said, "we will have to stand out and abandon the geek image that sticks to our skin. Free software is no longer the business of a small community of insiders. Choosing free software is not only a technological issue, but also an economic, social and political choice." Indeed, it is easy to invoke economic reasons for choosing Linux and free software. After all, how can you be cheaper than a free product? However, several other reasons support OpenSource. "The foundations of free software are based on something fundamental: open and free standards. Indeed, not only does free software allow users to choose one tool over another, but almost all OpenSource applications save their data in a format that can be read by several other applications." Jobs Another challenge for the AQP3L will be to make decision-makers understand that free software should not be to the detriment of employment. "Our leaders and business leaders need to know that free software creates jobs. Many companies and governments want to migrate to free software, while also wanting a customized solution. Consulting firms that have chosen to develop and improve products based on free source code, instead of proprietary software, are helping to create many jobs, while adapting a product for their clients and giving it back in whole or in part to the community." Like Maxime Bouffard, many young, dynamic companies here are eagerly awaiting the conference by Michel Rochette, from the Secretariat of the Treasury Board of Quebec, when he will unveil next Wednesday, during a luncheon organized by the Fédération informatique du Québec, "the government's position [on open standards and free software] and the actions that these changes will provoke, following the study commissioned by the Treasury Board from the Faculty of Administration at Université Laval." In any case, the challenges that the AQP3L will have to face in 2003-2004 promise to be numerous and exciting. On October 25, at the ETS in Montreal, the Quebec Association for the Promotion of GNU/Linux and Free Software is organizing the first Quebec conference on free software. Everyone is invited, whether they are active members of user groups, developers and managers of companies working in free software, resource persons within public and parapublic organizations or ordinary citizens aware of the issues related to the adoption of free software. We will be there, rest assured.

## ###ARTICLE\_START### ID:268

Energy-efficient ventilation in commercial kitchens - Mario Rousseau, SAIC Presented by the American Society of Heating, Refrigerating and Air conditioning Engineers Inc. (ASHRAE), October 6, at 5:30 p.m., at the Pavillon Charlesbourg of Collège Limoilou, 7600, 3e Avenue Est, Charlesbourg. Info: André Chouinard. achouinard@armeco.qc.ca LUNCH DISCUSSION Recruitsoft, a world-class company in Quebec City: challenges and opportunities - Louis Têtu, President and CEO (Recruitsoft) Presented by the Quebec City Chamber of Commerce, October 7, from 11:30 a.m. to 2 p.m., at the Château Frontenac (ballroom). Info: (418) 692-3853, ext. 221. www.ccquebec.ca DINNER-CONFERENCE Perspectives SeriesQuebec Public Administration and Open Source Software: What's the Situation? - Patrice Di Marcantonio, Expert Advisor in Architecture and Technology Infrastructure (Undersecretariat for Government Information Highway and Information Resources, Treasury Board Secretariat) Presented by the Fédération de l'informatique du Québec, Québec section (FIQ) and the Conseil des chargés de l'informatique du secteur public (CRISP), on October 8, from 11:30 a.m. to 2 p.m., at the Musée des beaux-arts de Québec (Auditorium). Info: (418) 684-0248 www.fiq.qc.ca/quebec SEMINARVoice over IP Technologies - Charles Terreault, Eng. DHC, (Ordre des ingénieurs du Québec), member (Canadian Academy of Engineering) and Fellow (Institute of Electrical and Electronics Engineers - EEE); Marcel Messier, Vice-President (Bell), Alain Luc Laprise, Director (Telus Québec), Yves Tessier, Partner (APTitude IP), Maurice Duchesne, Vice-President (Mitel Networks), Normand Pelletier, Director (Nortel Network), François Thibault, Director (Cisco Systems). Presented by CRIM, October 9, from 9 a.m. to 5 p.m., at the Delta Hotel, OPUS II room, 475, avenue du Président-Kennedy, Montréal. Free bus transportation (6 hours) from downtown Québec City to Montréal with return at 8 p.m. in Québec City. Info: (418) 648-8080. www.info-formation@crim.ca WORKSHOPS Computer Workshops Presented by the Quebec Region Microenterprise and Self-Employed Workers Network (META) and the Quebec Regional Chamber of Commerce of Entrepreneurs, October 14, from 6:30 p.m. to 8:30 p.m., 843, rue Clémenceau, Beauport. Info: (418) 651-7181 www.ccreq.ca You can send us the contact information for your technology activities at Economie@lesoleil.com

## ###ARTICLE\_START### ID:269

With wireless access points, you can surf the Internet without plugging in your computer. Radio waves do the work. However, you may not be the only one using the connection. "With wireless Internet, I can work anywhere in the office, I am much more mobile," explains Carl-Frédéric De Celles, president of iXmédia, a small Quebec company dedicated to interactive multimedia communication. His employees have even discovered software that allows several users to work on the same document simultaneously. But the party can quickly turn into a nightmare if the terminal is not configured correctly. "In this case, anyone can connect to it, it's very easy. And the person can even have access to the content of your computer," he says. "Warwalking" François-Pierre Bouchard, a software designer from Quebec, tried the exercise and managed to connect to about ten terminals in the city during a simple walk. "I decided, out of curiosity, to go looking for WAPs (Wireless Access Points) in the city," he says. "I found a program, Network Stumbler, which allowed me to walk around with my cell phone to detect the signals emitted by the terminals." This activity is called warwalking (for Wireless Access Research) and is gaining more and more followers, especially in large cities where wireless access points are spreading. "When I find a terminal, the software emits a sound and the better the connection, the clearer the sound," explains the computer scientist. The software also allows maps to be generated automatically if it is coupled with a GPS (Global Positioning System). Mr. Bouchard detected about ten terminals in the upper city, near Parliament Hill, and as many if not more in the lower city. Security hole "I was able to connect several times because most of the terminals were not protected," he explains. And it's not necessarily out of volunteering that people leave their network "open." Security is often taken for granted by individuals who buy a terminal. The device is preconfigured to facilitate installation... and information sharing. "You practically need an expert to protect the terminal and encrypt the data so that it is not intercepted," says François-Pierre Bouchard. "It will become a problem for people who do not secure their connection, they must be made aware of this," adds Carl-Frédéric De Celles. Warwalking also raises the issue of the ownership of the signal. Is it illegal to connect to a terminal if you have managed to detect its presence? "It's more or less illegal, it's not very clear," says François-Pierre Bouchard. The radio waves emitted by the terminals are in the same spectrum as those of cell phones and are allocated by the CRTC. "Since it's a fairly new technology, I don't think we've really looked at it," says the president of iXmedia. Warwalkers believe that networks should remain "open" in order to democratize Internet access. Some of them even practice warchalking, which means marking the location of access points on the walls of buildings with chalk, as well as whether or not they are accessible. In any case, wireless access points are gaining popularity, but it's mainly computer enthusiasts who have adopted them. However, the technology should spread due to falling prices. To access the ambient Internet, as the French call it, you just need to get an access point and a wireless card for your computer. The whole thing now sells for around $200. As the number of wireless Internet users grows, so do the number of restaurants and cafés offering the service. In the United States, Starbucks was one of the first to provide it to its customers. In Quebec City, the Turf seems to be one of the only places with wireless Internet for now. "I can't imagine the day when it won't be available everywhere, on the street, in parks," says Carl-Frédéric De Celles. "It might be the second Internet revolution." TECHNO WEEKLY DINNER-CONFERENCEEco-energetic ventilation in commercial kitchensMario Rousseau, SAIC Presented by the American Society of Heating, Refrigerating and Air Conditioning Engineers Inc. (ASHRAE), October 6, at 5:30 p.m., at the Charlesbourg Pavilion of Collège Limoilou, 7600, 3e Avenue Est, Charlesbourg. Info: André Chouinard. achouinard@armeco.qc.ca LUNCH TALKRecruitsoft, a world-class company in Quebec City: challenges and opportunities - Louis Têtu, President and CEO (Recruitsoft) Presented by the Quebec Chamber of Commerce, October 7, from 11:30 a.m. to 2 p.m., at the Château Frontenac (ballroom). Info: (418) 692-3853, ext.: 221. www.ccquebec.ca DINNER LECTURE Perspectives SeriesQuebec Public Administration and Free Software: What's the Story? - Patrice Di Marcantonio, Expert Advisor in Architecture and Technology Infrastructure (Undersecretariat for Government Information Highway and Information Resources, Treasury Board Secretariat) Presented by the Fédération de l'informatique du Québec, Québec section (FIQ) and the Conseil des chargés de l'informatique du secteur public (CRISP), on October 8, from 11:30 a.m. to 2 p.m., at the Musée des beaux-arts de Québec (Auditorium). Info: (418) 684-0248 www.fiq.qc.ca/quebec SEMINARVoice over IP technologies - Charles Terreault, Eng. 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Info: (418) 651-7181 www.ccreq.ca You can send us the contact information for your technology activities at Economie@lesoleil.com MWhite@lesoleil.com

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Perspectives Series - Quebec public administration and free software: what about it? - Michel Rochette, Director of Architecture and Infrastructure (Undersecretariat for Government Information Highway and Information Resources, Treasury Board Secretariat) Presented by the Fédération de l'informatique du Québec, Québec section and the Conseil des chargés de l'informatique du secteur public on October 8, from 12 p.m. to 2 p.m., at the Musée national des beaux-arts du Québec (Auditorium), Québec Info: (418) 684-0248 http://www.fiq.qc.ca/quebec/ SYMPOSIUM TI Contact Québec 2003 - Symposium focused on partnership in the field of information and communications technologies (ICT) - Guy Kawasaki, CEO (Garage Technology Ventures, Silicon Valley - conference in English), John Seely Brown, Principal Investigator of the Palo Alto Research Center of XEROX Corporation - conference in English), Ethan Zuckerman, Chief Technology Officer (Geekcorps) and several other speakers. Presented by Pôle Québec Chaudière-Appalaches from October 8 to 10: Wednesday from 5 p.m. to 7:30 p.m.; Thursday from 7 a.m. to 7 p.m.; Friday from 7:30 a.m. to 2:15 p.m., at the Château Frontenac. Info: (418) 681-9700, Manon Rouillier manon.rouillier@pole-qca.ca You can send us the contact information for your technology activities at Economie@lesoleil.com

## ###ARTICLE\_START### ID:271

Will Linux become a paid operating system? The question may seem absurd since this operating system created in the 90s has always been distributed free of charge, which has partly contributed to its success. However, more and more users are worried about the claims of SCO, the American publisher that bought the rights to Unix in 1995. It claims ownership of patents used in the Linux code. SCO has therefore sent a thousand invoices to Linux users, requiring them to sign a license agreement and pay a fee of $699 before October 15, after which the price will increase to $1,399. That is to say prices significantly higher than those of competing Unix systems or even certain versions of Windows... What started as a joke for Linux users could well turn into a nightmare. First the joke: Linux was written from scratch by the Finn Linus Torvalds, precisely as an alternative to Unix; it is distributed under the GPL (GNU General Public License) license which allows users to study and modify the program. If some parts of the Unix code were integrated into Linux, it is because they have been circulating freely and legally since the 70s, say Linus Torvalds and several developers in the Linux community... Who, moreover, are still waiting for indisputable proof of plagiarism. Now the nightmare: SCO, which bought the company Caldera, which had acquired the license of the Unix System V operating system from Novell, discovers, one fine morning in January 2003, that the Unix code has been partly copied into Linux. He first attacked IBM, from whom he first demanded 1 and then 3 billion dollars in damages for having used lines of Unix code in the version of Linux that he distributes. Then he filed a complaint against all Linux publishers for patent infringement on certain versions of this system, which is said to be used on 2.5 million computers. Today, SCO is considering taking legal action against the users. After its action against large American companies, the publisher decided to send an emissary to Europe to negotiate with several companies that use Linux, such as Unilever, Shell and Philips. The counterattack was not long in coming. Red Hat, one of the main Linux distributors, had already reacted at the beginning of August by filing a complaint against SCO for fraudulent commercial practices, anti-competitive acts and defamation. The affair got worse when Linux community extremists attacked SCO's server, causing a denial of service, which angered SCO's CEO, who demanded that those responsible be denounced. As for IBM, it finally decided to take legal action this week against SCO, accused of violating the GPL license and several of its patents. "SCO is trying to appropriate rights to an important and widely exploited technology to prevent the free software community from using it and enrich itself unjustly," said an IBM spokesperson. In the meantime, the affair is already profitable for SCO. The publisher recorded a net profit of $3.1 million in the second quarter of 2003, while in the same period last year it reported a loss of $4.5 million! For their part, Microsoft executives, who consider Linux to be Windows' main adversary, are rubbing their hands. Even if SCO does not win its case, it will at least have succeeded in sowing doubt among Linux users...

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## ###ARTICLE\_START### ID:273

STRASBOURG from our European office - Will the supporters of free software succeed in getting their point of view across to the European Parliament? About a hundred of them demonstrated in the streets of Strasbourg on Tuesday, September 23, in the name of "free ideas for a free world". They are demanding the rejection of a proposed European directive intended to impose patents on "computer-implemented inventions". The Strasbourg Parliament was due to vote on the text on Wednesday. According to the supporters of free software, this directive would allow intellectual works to be patented "as such", which is currently prohibited by the Munich Convention on the European patent. Ideas, mathematical formulas or intellectual methods are not patentable: they are protected by copyright. The Eurolinux Alliance claims that such a patent would threaten the entire innovation sector: it would make it impossible to write new software, since this uses existing modules, by combining them in different ways. Eurolinux representatives argue that the success of free software, whose source code (trade secret) is public, would not have been possible if the basic algorithms had been monopolized by a large group. They also consider that patentability is not suitable for inventions that occur in a short time frame - about three years for improving software, which is less time than for examining a patent. Finally, they argue that the costs of software patents, which are more expensive than those of copyright, risk strangling SMEs. The supporters of free software were heard in Parliament by the Communists, the Italian Radicals and the Greens: "Apart from Microsoft, there is no one who defends the idea of patents," said Daniel Cohn-Bendit, chairman of the Green group, during a hearing on the subject. The Greens have asked that Parliament abandon its Microsoft equipment for a free software formula, "as the city of Munich has done, for example." REQUEST FOR AMENDMENTS The rapporteur, Arlene McCarthy (Group of the Party of European Socialists), is far from having taken up this cause. In a press release, she complained that she had never been confronted with such an "aggressive" "harassment campaign" from "lobbyists in ten years". She believes that they are engaging in "disinformation", by assuring that the directive will lead to software being patented "as such". On the contrary, she believes that this text will only protect software "which makes a contribution to technology", as demanded by the Union of Industrial and Employers' Confederations of Europe (Unice). Unlike the supporters of free software, Ms McCarthy believes that it is necessary to legislate to put an end to the "legal uncertainty" created by the European Patent Office: although it was responsible for applying the Munich Convention, this body has issued more than 20,000 patents concerning computer implementations. "Since he pays for himself with the beast, he has patented everything and anything, including software as such," says Gilles Savary, a French socialist MEP. Gilles Savary and Michel Rocard, chairman of the Parliament's culture committee, have nevertheless asked Mrs McCarthy to clarify the Commission's text. "We are wary of Frits Bolkestein, the commissioner for the internal market, who is an ultra-liberal," says Mr Savary. "He assures us that it goes without saying, we tell him that it is better to say it," adds the MEP. Mr Savary and Mr Rocard have negotiated compromise amendments with some of their colleagues from the EPP (European People's Party, right) who are sympathetic to their argument, such as Finland's Piia-Noora Kauppi. According to these amendments, a computer-generated invention should only be patentable if it "uses the forces of nature". Mr. Rocard explains in a press release that, "when man uses matter or uses the forces of nature, the costs change, the necessary remuneration is much higher, the patent makes it possible by prohibiting the use of the invention without remuneration". In other words, explains Gilles Savary, "it will be possible to patent software that controls a chain of painting robots, because it brings a material and industrial innovation, that is to say a sustainable competitive advantage": this investment would justify the depreciation that the patent supposes. Marco Cappato (not registered), a supporter of free software, does not "see the usefulness of these details" since, he specifies, "the technical invention is already protected by a patent". Additional title: demonstration in Strasbourg, Tuesday September 23, 2003

## ###ARTICLE\_START### ID:274

MEPs are due to vote today in Strasbourg on a directive that aims to authorise patents on software. The result of the vote is expected to be close. Yesterday, the debate was rushed. Nearly 120 amendments were tabled to give the text a more restrictive aspect. But the first discussions on this subject began in Europe in October 1998. The European Commission then published a green paper to "fight against pirates and counterfeiting in a single market". Then, in November 2000, Brussels presented an action plan to strengthen intellectual property rights. That is the whole point. The European Commission evokes the notion of intellectual property in relation to software, while these programs are still protected in Europe by the principle of copyright. But thanks to legal tricks, around 30,000 patents on software have already been recorded at the European Patent Office. Added to this figure are the protections taken in the national authorities of the fifteen member countries. Yesterday, EU Commissioner for the Internal Market Frits Bolkestein warned MEPs against rejecting his proposal for a directive on the patentability of software inventions. "Not only would uncertainty continue for inventors, but the result would be contrary to the directive's approach of maintaining the exclusion of pure software from patentability." Brussels wants to harmonise EU rules on the patentability of "computer-implemented inventions" to provide "legal certainty" for inventors. The law also serves to transcribe an agreement signed within the framework of the World Trade Organisation. The directive seeks to define more precisely "computer-implemented inventions" which would be patentable "provided that they are susceptible of industrial application, that they are new and that they involve an inventive step" by making a "technical contribution". Rapporteur of the draft directive, British MP Arlene McCarthy declared herself in favour of approving a text that would allow "rewarding the most innovative companies", on condition that "the patent is limited to genuine inventions". But many of her colleagues denounced the vagueness and ambiguity of her proposals. "You have not followed your logic to its conclusion", criticised Michel Rocard on behalf of the Parliament's culture committee. He explained: "Software is just a set of mathematical formulas. The creation of software sometimes uses several hundred previous software programs." He thus fears that this new patent "will undermine the dissemination of knowledge". "We do not want a monopoly of software giants", added the German Joachim Wümerling. Yesterday, about a hundred people demonstrated in Strasbourg against the bill, displaying a banner proclaiming, in English: "Free ideas for a free world" or "Patented software = reinforced monopolies".

## ###ARTICLE\_START### ID:275

"h2ptm", the meaning of the network Paris-VIII University, a pioneer in research in digital creation, is launching the exhibition-conference-performance. Despite a daunting name, H2PTM (for Hypermedias, hypertexts, products tools and methods) will titillate many senses, if not create any (subtitle of the event: Creating meaning in the digital age...). For the general public, an exhibition (Olga Kisseleva, Jean-Louis Boissier, Douglas Edric Stanley...), performances (Lab [au] with Res Publica on 9/24, Antoine Schmitt, Atau Tanaka, Cécile Babiole and Laurent Dailleau on 9/26...). We'll come back to it. On 9/24, 25 and 26, 10 a.m.-7 p.m. (except on the 25th, until 10 p.m.), free entry to the exhibition and performances. h2ptm. hymedia. univ -paris8.fr/h2ptm03/ Lecture d'Inventaire Online literature is hardly creative, all the more reason to attend the public readings of "Ouverture pour cause d'inventaire", the "physical" side of Inventaire/Invention, one of the rare "literary creation" sites. On 23/9 at the Grande Halle de La Villette, Boris-Vian room, 75019. Res.: 01 42 40 33 21 or by email: redaction@inventaire-invention.com OpenSource 3 OpenSource 3 is peppering the former temple of Parisian operetta with sound installations and performances all week long. Note the latest play by Peter Sinclair and GH Hovagimyan, Shooter (not seen), and their performance, Rant, a verbal joust between the performer and the processor. As usual, book before you go... From 19 to 28/9, Gaîté lyrique, 3, rue Papin, 75003. Res.: visite@la-gaite-de-paris. info www.la-gaite-de-paris.info

## ###ARTICLE\_START### ID:276

Ars Electronica, which this year has refocused the debates on code, has devoted, a few steps behind schedule, a large part of its exhibitions and conferences to "software art". The latest fad of festivals. As early as 2001, the Transmediale, a Berlin media-art festival, awarded a prize called "artistic software" or "software art". This award distinguishes the work of an artist who has programmed software that, unlike commercial software, "is not a functional tool", but "an artistic creation using code". A practice that is booming among a young generation of artist-programmers who grew up with computers, for whom manipulating code has become second nature. As early as 2002, the Read\_Me festival in Moscow has been entirely devoted to this phenomenon. An event documented and extended since January by the online directory Runme.org, which now has over 200 artistic software programs, available for free download. An exercise in style. In September 2002, the Whitney Museum in New York took on the challenge with CODeDOC, an online experiment initiated by Christiane Paul, whose mission was to explore the relationship between software code and the results it produces. The curator asked the cream of American artist-programmers (Alex Galloway, Mark Napier, Golan Levin, etc.) to each create a very simple program, a style exercise consisting of "connecting and moving three points in space." On the site, visitors are first confronted with a page of written code, which they can execute to view the result. "One of my intentions was to demystify code as a mysterious and hidden force, to reveal it to the user," explains Christiane Paul. However, it is not certain that laying bare the code will allow for a better perception of the work. L'Ars Electronica invited Christiane Paul to organize a second round in Linz with eight European artists who took part in the game. A CODeDOC II that confronts, under the label of "Software art", artists with very different approaches in reality. From the activism of the epidemiC collective, author of the famous artistic virus biennale.py created for the Venice Biennale, to the more plastic work of Antoine Schmitt, via the game diversions of Joan Leandre, or the free software of Veejaying developed by the "rasta coder" Jaromil, their only common denominator is to use code as the raw material of their work.

## ###ARTICLE\_START### ID:277

For computer users who were unable to download the Édulinux work platform, and who bitterly regret it, Benoît des Ligneris, the Édulinux project manager, informs me that there will be another Édulinux festival at the Université de Sherbrooke, Friday and Saturday, as has been the case every year for the past few years. It will be possible to bring your computer to have the Linux system installed for free. A first opportunity will be given to you on Friday, September 19 on the Longueuil campus of the Université de Sherbrooke, from 10 a.m. to 8 p.m., and in Sherbrooke this Saturday, September 20, from 10 a.m. to 4 p.m. You will be able to obtain information on Linux, or have it installed on your computer's hard drive, or simply attend the various conferences presented on this occasion. On Friday, the program includes a round table on "Using Free Software in Education" (11 a.m. to noon), and another workshop, from 3 p.m. to 4 p.m., will focus on "Vector and Raster Graphics under Linux." From 5 p.m. to 6 p.m., the question of why to use free software will be discussed. One-hour demonstrations of Edulinux have also been scheduled for 10 a.m., 2 p.m., 4 p.m. and 7 p.m. In Sherbrooke, on the West Campus, the demonstrations will take place at 11 a.m. and 2 p.m. "Vector and Raster Graphics" will be in the spotlight from 1 p.m. to 2 p.m., while the workshop "Why Use Free Software" will be presented from 3 p.m. to 4 p.m. You can also bring your computer to have Edulinux installed. I remind you that Edulinux and Windows can coexist on the same hard drive. Subsequently, when you turn on your computer, you have to choose which of the two systems you want to use... To find out more, you can visit the Edulinux site at http://www.edulinux.org Doctor Benoît des Ligneris also has his own website at http://www.benoit.des.ligneris.net For the most gifted among you, he also suggests the following addresses: the scientific calculation center http://ccs.usherbrooke.ca.acces.bibl.ulaval.ca/ ; Mydynaweb developer at http://mydynaweb.net/ as well as Oscar developer at http://oscar.sourceforge.net/ Create an animated clip The youth section of the National Film Board offers you the possibility of creating your own animated clips and even broadcasting them across the Internet. Cliposcope is the thingamajig that helps you create your masterpiece where Ultrabug is the star. You determine his level of intelligence and his main skills and you're ready to create an adventure. The best clips will then be broadcast on the site. The site address is http://onfjeunesse.ca/cliposcope For those who take animation more seriously, there is a site that presents the different steps to follow to make a successful animated film, but also a video montage. It is a private site hosted at www.carrousel.qc.ca/video/studio.htm/ You will find 24 video sequences to guide you in your process. You can also do theater using the Internet. The site Les gros becs offers you an example at www.lesgrosbecs.qc.ca The information is divided into three sections: the bulletin board, the curious corner and playing theater. And it is aimed at young people. Do you know the names of colors? How many do you know? They say that your computer screen can display a million colors. Is this true? The Chroma site offers you an interesting color dictionary. You can search for names, where you are of course offered a sample of the color you are looking for and occasionally a photo to illustrate the color in question. For example, when you say "bay", you are shown a photo of a bay horse. You can also do a chromatic search. So when you go to buy paint, instead of ordering flesh-colored paint, you could ask for the color "antalphabet" and you will pass for an expert. For each color, you are also explained the origin and the exact composition to obtain this color. The site also offers you to download free software, the "Color Box", which will allow you to choose the desired color. All that remains is to print the sample and bring it to the paint dealer. It is still necessary that your computer screen reproduces exactly the selected color and it is still necessary that your printer can faithfully print this same color... Unless you bring the address http://pourpre.com/chroma/ to ask the merchant to visit the site. Allume la gang This week, the media echoed a study which said that the first cigarette was enough to hook the smoker for a long time. There is an interesting site on this subject at the address www.allumelagang.com/

## ###ARTICLE\_START### ID:278

Obliteration Behind a spartan presentation hides the portal for French-speaking philatelists. Pigeongrammes, unissued and other errors will no longer hold any secrets for you. Monthly, the news section updates the list of new collections issued. Small ads offer a sales and exchange space open to enthusiasts (in English). The production is basic. For the informed. www.philatelie.fr Questions for a champion An extension of the well-known game from France 3, this free site allows you to virtually participate in a competition against the computer. The questions follow one another as in the show, with the difference that here you have to answer in writing and no spelling approximations are tolerated. A good idea for a relaxing break. www.francetv.fr/france3/ emissions/qpuc Military museums Created on the initiative of the "Normandy 1944 Landing Committee", this site presents the Pegasus memorial and the landing museum in Arromanches. On the program, virtual tours and 360 images that pay tribute to the Anglo-American forces. A good way to prepare your visit. www.normandy1944.com Precision Following the article of September 5 devoted to free software in the administration, the Adae (Agency for the development of electronic administration) informs us that it has taken over from the Atica (Agency for information and communication technologies in the administration). Its mission: to develop new electronic services intended for users, public agents and administrations to set up a better quality administration. To contact us multimedia@lefigaro.fr

## ###ARTICLE\_START### ID:279

Microsoft never admits defeat. Its offensive in mobile telephony, which has been a failure until now, is finally starting. The firm chaired by Bill Gates has convinced the American Motorola to choose its Windows CE operating system for its next generation of terminals. When it comes to "operating systems for mobile phones, we are agnostic," explained Mike Zafirovski, Motorola's CEO, at the beginning of the year. In other words, the American group does not want to be tied to one program rather than another. Above all, the world's second-largest mobile phone manufacturer today announced orders from the French Orange (France Telecom), the American AT&T Wireless and a Hong Kong operator for its new terminal called MPx200, which will use Microsoft's program. In addition, at the end of August, Motorola announced for "strategic reasons" the sale of its stake in the British company Symbian, which specializes in operating systems for so-called smart mobile phones. These cell phones can take photographs, send e-mails or serve as a pocket electronic diary. This market is in its infancy. But this new generation of terminals should represent "in 2007, 40% of new sales in the world", according to experts. Unlike the situation in microcomputing, where 95% of the operating system market is captured by Microsoft, the game is open in mobile telephony. Four operating systems are in the running: the Windows CE program, a version of the free software Linux, a program proposed by the American Palm Source and that of the British Symbian. The latter was created in August 1998 by the main producers of mobile telephones. Thanks to this cooperation, the manufacturers wanted to contain Microsoft's ambitions in mobile telephony and simplify, on a technical level, the exchange of data between the different terminals. In addition, Nokia has a direct interest in the success of Symbian. Because in addition to the operating system, the terminal must use a software platform (graphical interface, applications, etc.) marketed by the Finnish manufacturer and called "Series 60". Nokia, Samsung, Siemens, Panasonic and Sendo have a license for these additional programs. For its part, Microsoft offers Windows Mobile, which integrates Windows CE and several applications, chosen by Motorola and the Taiwanese HTC. Marc Cherki

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## ###ARTICLE\_START### ID:282

It is impossible to say that this is a world first, due to the confidentiality of the method. Nevertheless, this Wild Lan Party should attract its share of Lorraine techno-goers, since it is a French first: a networked, wireless and open-air video game tournament will take place next Thursday, in the very center of Metz, on the very busy Place Saint-Jacques, with rave-style meetings (in the event of a problem with the authorities, the players would move elsewhere...). A happy band of technophile madmen has indeed decided to transform the smiling capital of the mirabelle plum into a technopolitical testing ground. Three local associations, Graoulug, Linux users who support free software (meaning: whose source code is open to all copy-reproduction-manipulation, unlike proprietary computer programs), Metz Wireless, defenders of wireless Internet, and Provisoire, net artists, have joined forces to create Librametz and, in the process, imagine this game in the open air and on laptops (enthusiasts are asked to bring their own machine, the Wi-Fi cards are provided on site by Librametz). "A Kandinsky side". To complete this experiment, it is Armagetron, also an open source game (might as well be logical to the end), taken from the legendary Tron (1982), which will see the gamers compete. The aesthetics of the game, very low-tech, stage legendary motorcycle races from the first film in computer-generated images. Basic, effective, devilishly referential. And if this "technological and artistic happening", explains Loz, a net activist from Metz, is inspired by Tron, it is notably for its retrofuturistic dimension: "With its wireframe drawings, very very far from a Final Fantasy, Tron even has a Kandinsky side, where the colors fight against other colors." And, to the question of the public space thus invested via wireless technology (and why would we go and freeze our butts off in the open air rather than play in the warmth of our homes?), he answers: "To avoid having to push open another door." So, when, at nightfall on Thursday, the giant screen broadcasts the games that we imagine to be feverish, it is "with eyes wide open that we will alienate ourselves in video games and computers."

## ###ARTICLE\_START### ID:283

Asia never stops innovating in IT. After the Thai people's computer, here is the anti-Windows with public funds: last weekend, the Japanese, Chinese and South Korean governments announced an alliance to finance an operating system based on Linux, an alternative to Microsoft's Windows. The aim: to introduce more competition into this market dominated by Bill Gates' firm. Linux, the result of the collaborative work of thousands of programmers around the world, is free software: it can be copied and modified at will, unlike Windows. Asian governments will feed a consortium including electronics manufacturers, including Hitachi. Microsoft's head of government markets for Asia, Tom Robertson, immediately retorted: "We would prefer that the market alone decides who is the leader in the software industry. Governments should not choose who the winners are."

## ###ARTICLE\_START### ID:284

Linz special correspondent For almost a quarter of a century, Linz, Austria, has hosted the oldest festival dedicated to art and new technologies. Created in 1979, Ars Electronica (1) is a sort of Cannes of digital, minus the glitz, which welcomes hundreds of artists and takes over a dozen venues (museums, art centers, parks, universities, nightclubs, etc.) for six days with shows, installations, conferences and concerts. Even if the austere old lady sees her primacy disputed by the emergence of young, more "sexy" festivals, such as the Transmediale in Berlin, and the works that could only be seen in Linz travel more easily, her influence remains preponderant on the digital scene, and even beyond. Code. After venturing to the frontiers of media art, Ars Electronica is returning to its roots with a 24th edition that ends today entitled Code, the language of our time. "The festival has pushed the boundaries in all directions, including the most extreme ones like genetics, globalization, because one of the characteristics of electronic arts is their sensitivity to social dynamics and political issues. After having explored the edges a lot, you sometimes have to go back to basics," explains its director, Gerfried Stocker. Not really a retreat, even if the event has a more modest profile, less high-tech debauchery and spectacular shows than in previous years, but a "time for reflection," after the euphoria of the Net economy and the bursting of the bubble, "to rethink the identity of media art." Hence a return to its very essence, the code and its social, cultural, legal implications. Is the language of computers, omnipresent in our daily lives, becoming "the lingua franca of the global information society," Stocker wonders. The dashing philosopher Leo Findeisen, in a notable intervention at the symposium (2), did not hesitate to draw bold parallels between the current free software movement and the attempts to create universal languages at the end of the 19th century, such as Volapük or Esperanto. For their part, Gruppe Fok, Swiss students from the University of the Arts in Zurich, have erected a giant computer keyboard in the form of a climbing wall on the façade of the Kunstuniversität in Linz. Under the instructions of an operator, the climbers hoist themselves up to touch the controls and write the code collectively. An exercise to raise awareness of the problems of software patentability currently being discussed in the European Parliament. Thousands of lines. Code, a mysterious and often hermetic language for the uninitiated, has become the raw material for a new generation of uninhibited artist-programmers, who grew up with these technologies, for whom manipulating code is as natural as wielding a brush for a painter. This gives rise to formal and experimental works, such as the elegant MicroImage by the American Casey Reas: thousands of lines run across three aligned screens, as many small programs with autonomous behavior that intersect, aggregate, disperse, change color in an unpredictable way, tiny modifications that affect the overall image. Digitalization also leads to an increasingly strong hybridization, even a fusion between different practices, such as image, music and programming, to which the festival is giving pride of place this year. A convergence illustrated by the ambitious evening, "Principles of Indeterminism" a reference to the artistic credo of the composer Iannis Xenakis. This musical and visual epic of nearly five hours runs from the 50s to the present day, from analog music to digital music, from the orchestra to the laptop, from Edgar Varèse to the synthetic crackles of Ryoji Ikeda, author of a breathtaking hypnotic live performance, from the experimental videos of Bill Viola to the fascinating abstract graphics of the artist-programmer Lia. A marriage of image and sound is also at the heart of Messa di Voce, a performance that attempts to visualize the abstract dialogue between two vocalists, thanks to software created by Golan Levin and Zachary Lieberman. The sounds, melodies, words and breaths are graphically interpreted in real time in the form of letters, 3D figures, bubbles, which seem to come out of the singers' mouths. Best of. On the "megashow" side, it's hard to compete with the Russian orchestra man, pioneer of Net-art, Alexei Shulgin. With his antediluvian computer, he formed 386 DX, the first "cyberpunkrockband". The nasal synthesized voice hums in front of a hilarious audience a best of the greatest pop hits, from Imagine to Rape Me, all lit up with corny light shows, images of cheap fireworks, controlled by a keyboard slung over his shoulder. In the same "low-tech" but Japanese-style vein, the audience gave a triumphant welcome to the "artistic unit" Maywa Denki and its Tsukuba Series. A collection of delightfully absurd instruments, played mechanically by these DIY aces, or remotely controlled by computer, such as the Taratter, tap shoes controlled by hand remote controls, a Voive vibrater, an instrument strapped to the chest that quivers when turned on and produces astonishing tremolos when singing, a Klaxon saxophone, vibraphones in the shape of flowers that bloom, etc. Physical music, in opposition to the immateriality of digital music. Maywa Denki will present their wild show at the beginning of November at the Maison de la Culture du Japon in Paris, as part of the exhibition Hommes et robots. (1) www.aec.at/code (2) “Some code to die for, on the birth of the freesoftware Movement in 1887”, translated in the catalogue into English, German and Esperanto. For more information, www.paramediamind.org

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For me, liberal globalization is much more fragile than we are told. But if alter-globalization means that we are defending another globalization and not a return to empires in the plural and a retreat into nation-states, that is absolutely right! How can we both advocate greater generosity towards the least developed countries and support the most corporatist demands of the unions of industrialized countries? There are a whole series of areas where solutions can only be global, such as the fight against greenhouse gases, but the idea that there would be communicating vessels on social issues and that it would be necessary, for example, to lower the salaries of employees in the North to help poor countries seems simplistic and ineffective to me. Liberal globalization is a machine for widening inequalities, between countries in the North and countries in the South, but also within each of the countries in these zones: there are winners and losers in Europe and the United States, as well as in Argentina and India! The problem is to fight for rights for all and for an improvement in living and working conditions. We denounce offshoring here, but we can argue that it helps poor countries... You know, apart from textiles, most offshoring concerns comparable countries and, as far as France is concerned, it is primarily the work of other European countries. The first response would be to avoid social and fiscal dumping within the European Union itself and, to do this, to adopt common rules and measures in areas that go beyond the mere expansion of markets. Why demonize liberal globalization when, as you yourself acknowledge, it is weaker than we think? This is one of the paradoxes of the current situation: the combination of the economic crisis and the rise of struggles is weakening globalization, much like in the 1870s and 1880s, when the first phase of economic globalization ended for similar reasons. The end of globalization at the end of the 19th century had made it possible to escape the dire poverty of the working class as described by Dickens and Zola. But this coincided with the second phase of colonization, with the Berlin Agreements, the division of Africa and the Far East, the race for empires and war. This risk represents a double challenge. For the alter-globalization movements, the challenge is to continue the internationalization of struggles and alternatives while avoiding any form of "sacred union" where these movements would support a "French model" or a "European model" while forgetting that our best allies are those who, in the United States as in the rest of the world, reject the logic of war and neoliberalism. The ball is also in the court of the political forces: the current model of liberal globalization cannot continue because it crystallizes too many oppositions; but a response that would be limited to the defense of national interests would lead us to another impasse. The whole challenge is to define the elements of an "other globalization" that would make it possible to reduce inequalities, establish sustainable development and fight against militarism and the logic of war. The alter-globalization movement is casting its net ever wider. Isn't its heterogeneity its weakness? No, not at all, on the contrary. This expansion is proof, if not of victory, at least of an initial success of our struggles and our mobilizations. At the start, starting in Seattle, the mobilizations focused on economic institutions: WTO, IMF, World Bank; and already, at the time, newspapers like The Economist or the Financial Times estimated that such a diverse movement, capable of uniting environmentalists, unions and NGOs, would not be able to last over time. Contrary to these analyses, the alter-globalization movement has continued its rise, has expanded and has integrated new themes, such as the fight against war. Last February, nearly 15 million demonstrators, which had never been seen before, protested against the American intervention in Iraq. This is much more than at the time of the Vietnam War and it is significant to note that these mobilizations were prepared within the framework of social forums. Does convergence really prevail over divergences? Absolutely. Our struggles each have their autonomy, but at the same time it is a global system that our mobilizations call into question, whether they are environmental, social, solidarity between the North and the South, etc. These struggles are intertwined. It is a bit like the tiles on a roof that are independent but which, together, ensure the overall watertightness of the building. What is at stake, behind the notion of "liberal globalization", is a particular moment of global capitalism, as different from that of the 50s-70s as it was different from the capitalism of the 20s. And if this particular moment unites so many oppositions, it is because it aggravates inequalities at all levels, thus breaking with what held our societies together: the feeling that we would live better than our parents and that our children would live better than us. Do you think that in France the alter-globalization movement fills a void left by the PS and the PC? I would say yes and no. 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We are seeing the arrival of a culture that privileges the "common good" of humanity, and that defends the right of every inhabitant of this planet to have drinking water, food, housing, heating, etc. This notion of "common good" is found among those who fight against the tightening of the rules governing intellectual property, particularly that of computer software. These new type of activists are developing free software, of which Linux is the best known, in a radical break with the logic of authoritarian planning, as well as with that of the law of profit.

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After having won over businesses, free software is beginning to spread into administration. This category of software, which can be freely distributed, copied, analyzed and modified unlike proprietary programs from Microsoft, Oracle or Symantec, is first necessary for security reasons: since the user has access to the source code (the list of program instructions), he can easily customize the software and correct the slightest flaw. Already, at the Ministry of Culture and Communication, Unix and Windows NT servers have been replaced by Linux systems. At the Ministry of Research, free software is used for management and research programs. For their part, the 950 servers of the General Directorate of Taxes, one of the most demanding administrations in terms of reliability and security, run under Linux. In several universities, academies and educational establishments, free software is at the heart of local networks, intranets or Internet access systems. And more and more local authorities are using applications such as Apache, PHP or Zope to set up their information systems and websites. The phenomenon really accelerated following the report submitted to the Prime Minister by MP Thierry Carcenac in April 2001. A report that recommended thinking about the place of free software in the administration and strengthening awareness-raising actions in this area. In the process, the Agency for Information and Communication Technologies in the Administration (Atica) was created under the authority of the Prime Minister. It is responsible for identifying the IT equipment needs of public services and listing the most suitable technical solutions and standards. One of its missions also consists of encouraging administrations to use free software. "The basic criteria for choosing software are interoperability, reliability and durability. It turns out that free software meets this requirement perfectly, explains Jean-Paul de Gorce-Dumas, project manager at Atica. As for the price criterion, even if free software is cheaper to purchase than proprietary software, it is difficult to take into account since it is necessary to evaluate the hidden costs, which are linked in particular to user training and the recruitment of competent technical teams. To install free software, most administrations must in fact call on specialized service companies, in addition to their own IT specialists. There remains another argument in favor of free software: independence from a publisher. "We need to be able to control our data and our processes instead of being prisoners of a proprietary format and the more or less useful developments imposed by publishers of turnkey solutions," emphasizes Jean-Paul de Gorce-Dumas. Moreover, access to the code of free software and its great flexibility encourage the reuse of applications from one administration to another. "Nothing prevents a school from taking advantage of a solution developed for another establishment or a region from adapting the portal developed by another local authority", specifies Jean-Paul de Gorce-Dumas. And even if voices are raised to accuse free software of endangering small IT companies whose activity consists of developing specific products, Atica responds with the need to move from a product economy to a service economy. Which concerns both the customization of software, user training, maintenance and related developments. In any case, awareness among administrations seems to be gaining ground. It even affects the Ministry of the Interior, which has decided to offer prefects a CD containing the OpenOffice office suite... a free software competing with Microsoft Office.

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Last week, Ottawa was the gathering place for the best developers in the Linux universe. Prestigious figures in the world of free software such as Linus Torvalds, the architect of the Linux operating system, make a point of attending the highly technical meetings of the Linux Symposium and the Kernel Summit, two annual events that will return in 2004. Let's say it straight away (without Mario): with the exception of a few conferences, the big discussions on the issues of the free source software movement are not really the cup of tea of the participants of the Linux Symposium and the Kernel Summit. It is rather the die-hards of programming, the "hypergeeks", who meet for these two annual meetings where the new developments of the Linux kernel are explained in detail, and where decisions on future directions are discussed. But be careful, do not misunderstand the meaning of the word "hypergeek". For my part, after several conversations with these programming aces, I would rather describe them as code poets, programming artists who, starting with just a few concepts, create applications that, tomorrow perhaps, will be used by a considerable number of users. Just look at the identification badges of the participants to see that the Linux world is no longer an alternative universe, where only a few insiders can debate the issues. IBM, HP, Red Hat, Nortel, Intel and Google are just a few of the names of large companies that have sent their representatives to Ottawa to observe and listen to the technical presentations given at these two events. The first event, the Kernel Summit, has always been by invitation. Do not try to attend it, unless you are among the chosen few who contribute to the development of the Linux kernel. The Kernel Summit allows developers from all over the world - the main people responsible for programming the Linux kernel itself - to meet and establish the roadmap for the future. For example, it was in Ottawa that Linux Torvalds presented the upcoming improvements of the future 2.6 and 2.7 kernels. Speaking of Linus Torvalds, those who imagine that at such events, he arrives all haloed in his media glory and surrounded by a few bodyguards, like Bill Gates or Steve Ballmer, are very wrong. As much as a CEO like Ballmer arrives flanked by his court of admirers, public relations specialists, and displaying an attitude that our English-speaking friends would call "bully", Linus Torvalds is and will always be a "geek", a high-level programmer, brilliant and who, above all, intends to remain so. Moreover, for the 550 people present at these two events, Linus is one of them. We will come back soon to this meeting with Torvalds. Open to all While the Kernel Summit is a small, very exclusive club, the Linux Symposium, open to all, allows "ultra-geeks" to meet, discuss and attend highly technical conferences. From optimizing code on PowerPC chips to using Linux on Google's 10,000 servers, there is no shortage of topics and they are always treated from a technical angle. However, this did not prevent a few rare speakers from addressing specific issues related to free software. Russell Ormond, who describes himself as a political "geek", took advantage of the platform offered to him to discuss the issues of free software and their acceptance within governments, whether national or local. Unfortunately, most of the code artists present at this conference think only in terms of technological issues, which makes any discussion and exchange with political decision-makers off-putting. However, in talking with John "Maddog" Hall, a former teacher who has now become one of the leading figures of Linux and free software, we quickly realize that the real issues are not technological. According to Hall, the big problem lies in the fact that many people who have to sell free software to decision-makers only use arguments related to technology. But the real issues are cultural, political, economic and social. In this, if the evangelists of free software could make this their motto, decision-makers would be more aware of the issues related to the use of free software (and free standards). Moreover, in rereading Karl Dubost's comments on open standards, published last week in these pages - "respecting an open standard means allowing all individuals to freely exchange information without the risk of seeing this information become inaccessible, prisoner of a right of use, of a particular product. There is a very important social stake in respecting an open standard, information being the vector of creation, of the exchange of information, of the freedom of each person" - it is easy to apply in part the same reasoning to free software. And by the way, why the nickname "Maddog"? I'll let you imagine a little, while pointing out that John Hall's voice carries very well in an auditorium, even without the help of a microphone. Let's just say that the man knows how to be very persuasive. Open-minded, inclined to discussion, but persuasive once his mind is made up. In short, what remains of this week of conferences and meetings? What conclusions can be drawn from it? Quite simply that free software is here for the long term, that it has taken off and that it will be difficult to silence it, and that the next challenge for Linux and free software will be to cross the gap that separates it from its use by the general public and especially, by government bodies. In this respect, Geoffrey A. Moore's famous book, Crossing the Chasm, which explains "the difficulty of winning over a more pragmatic type of user to new technologies, should become the bedside reading of any evangelist of free software" or open standards. In his book, Geoffrey A. Moore describes in a clear and luminous way the gap that separates innovators who are quick to adopt a new technology from the vast majority of consumers, whether in terms of attitudes, motivations, expectations or practices. For Moore, this gap can be filled "by offering high-tech products designed to meet specific needs and targeted audiences". This is very much the case with Linux and free software. mdumais@ledevoir.com

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Today, we find all types of software in "free" form. An operating system with Linux, an office suite with OpenOffice or even a Web browser with Mozilla. To understand the differences between free software and "proprietary" software, a small glossary. The hacker versus the geek The geek (pronounced: "guik") is a computer addict. More or less, any slightly stocky software designer meets this definition, whether he works at home or is an employee of Microsoft. The hacker is a politicized variety of the geek: he likes to program like crazy but also to share it with as many people as possible. He will therefore tend to prefer free software. Free versus proprietary "Free" software is officially defined by four freedoms: the freedom to use the program to do what you want; the freedom to consult the source code, therefore the manufacturing secrets of the software; the freedom to make copies; the freedom to improve it and publish its improvements so that everyone can benefit from them. These principles are found in the specific license accompanying all free software, and first and foremost the GPL (Gnu public license), developed by the American Richard Stallman in the mid-80s. Conversely, for "proprietary" software from classic publishers like Microsoft, there is no question of copying them for free (that would be piracy) or of manipulating the source code. Cooperation versus competition The "free" model comes from activism and non-commercialism, and is based on cooperation between programmers, more than on competition between companies. But for several years, very large companies have started to support Linux and free software, such as IBM or Hewlett Packard. The objective of these companies is to make a profit by selling services related to the software itself: installation, training, adaptation, etc. But in exchange, they must respect the rules of the "community", and donate all their work to the common pot. Most free software projects also combine volunteers, researchers and employees paid by companies to contribute to development. Public goods versus private goods Free software has been finding its place in the alter-globalization galaxy for some time now. The central idea is simple: free software is public goods, accessible to all, especially to the poorest. And not private goods, with use strictly controlled by their owner. Translation: with free software, computing is no longer a commodity like any other.

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The latest bad news for Microsoft came from Japan on July 8, where the government is closely studying the possibility of using the Linux operating system, a competitor to the Seattle firm's Windows, to manage the payroll of its 800,000 civil servants. At the end of May, it was the city of Munich that opted for Linux despite the visit of Steve Ballmer, the boss of the company created by Bill Gates, who came to plead his case in the Bavarian capital. There is no doubt that free software, of which Linux is the best known, has become a more than serious competitor to Microsoft in the field of administrations and local authorities. "A real explosion," confirms the IT manager of a French ministry. Enough to shake up the Seattle firm, which responds, as best it can, with large doses of triumphant press releases when a contract is won against Linux, as recently for the cities of Turku (Finland), Riga (Latvia) and Frankfurt (Germany). Where does this craze come from? Free software is a curious model, born of activism and non-commercial (read below). Its design is ensured by thousands of programmers all over the world, often on a voluntary basis. The software itself can be copied for free, and its source code (its manufacturing secrets) is available, authorizing custom modifications by customers. The complete opposite of "proprietary" software, with Microsoft's in the lead, whose source code is carefully kept secret. Independence. For administrations, free software has a package of advantages: independence from publishers, adaptation of software to specific needs. But also the price, quite simply. "It's a way to get more with European taxpayers' money," says a European Commission official. An argument that is all the more striking in times of budgetary scarcity. In France, the time seems long gone when, at the beginning of 2000, the Ministry of Culture played the iconoclast by announcing the gradual switch of 400 servers (large computers) to Linux. Followed a few months later by the Ministry of Finance. In recent months, the phenomenon has seen a notable acceleration. "Free software is no longer scary," explains Jean-Paul Degorce-Dumas, from the Agency for the Development of Electronic Administration, a department dependent on Matignon. Mutualization. After taking a significant share of the server market, free software is now also making its way onto users' computers, where Microsoft is ultra-dominant, with more than 9 out of 10 computers equipped with Windows, its operating system, while its Word word processor monopolizes the vast majority of workstations. In Munich, for example, the 14,000 civil servant workstations have been equipped with Linux. At the Avranches-Granville hospital (Normandy), 400 workstations have received the "free" clone of Microsoft's office suite, OpenOffice. Just like the French police stations, all of which are gradually switching over, following a decision by the Ministry of the Interior. So much so that a growing number of administrations are considering developing their own free software to share. In Paris, the Lutèce portal, designed for the needs of the municipality, has just been made available to all communities that want it. "Free software is a good way to pool this type of public investment," notes Jean-Paul Degorce-Dumas. For publishers of proprietary software, this rise in power of "free" is not a good thing. And Microsoft has embarked on an all-out offensive, with the launch of a program authorizing, under control, the opening of the Windows source code to states that want it. But also by fighting hard on prices. In Munich, according to the daily USA Today, the offer was thus lowered by 35% in the hope of winning the day. In May, the New York Times revealed the content of an internal email: "Under NO circumstances lose a market to Linux," wrote the head of global sales Orlando Ayala. It is also a question of preventing states and administrations from explicitly encouraging the use of free software in the face of "proprietary" software. And to avoid this, the most effective weapon remains lobbying. Microsoft is thus bombarding the European Commission with letters. "We're going to end up hiring someone just to answer them," mocks a European official.

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Between free software and free standards, what are the differences and the major issues? Is one more important than the other? To better understand these major issues, and more particularly those related to the use of free standards, who is better placed than Karl Dubost, director of compliance at the W3C and co-leader of the "Quality Assurance" working group to talk about it? Norman by heart and birth, citizen of the world, humanist, Karl Dubost, whose home port is now Montreal, is one of those who preach the adoption of free standards. The international organization for which he works, the W3C (World Wide Web Consortium) was created to stop the emergence of proprietary languages on the Web and to bring all the players together around a table in order to define standards. The standards are decided by consensus. And, believe it or not, you can be one of these players, the W3C having set up numerous virtual discussion forums where the opinions of Internet users are solicited and enthusiastically received. For Dubost - as well as for the columnist - the adoption of free and open standards is the big issue at the moment on the Web (as well as in the world of computing), and this, even before the adoption of free software. Issues A standard is a set of rules that allows different people to have an expected response depending on a given action. This is not really technical a priori, although it applies to the technical field. There are standards that are consensual, standards that are historical, others cultural For example, Karl Dubost says, "when you meet someone you know in Canada, it is normal to shake their hand and say: "Hello". These two small gestures allow communication to be established, it is a cultural and practically unconscious norm. In Japan, it will rather be a nod and: "Ohayo Goizamasu"". "Compliance with a standard," Dubost continued, "is an essential act in order to be able to communicate, act, and exchange between individuals and machines. This is what we call interoperability. When two people, two industrial machines, or two computers respect the same standard, they are able to understand each other, exchange information, and therefore be able to continue their task. Two people who shake hands have decided to respect the same standard to greet each other." A very simple example of the effectiveness of open standards is given to us by the use of electronic mail. If, today, an application such as electronic mail is so universal, it is because the designers of the SMTP (simple mail transfer protocol) and POP (post office protocol) standards made them available to everyone. In doing so, any programmer or software publishing company could take these standards and offer Internet users client software with either very simple characteristics or other characteristics that transform this software package into a gas factory. But, always, the Internet user has the choice of the software package and, whatever his choice, he has the assurance that his email client software will be able to communicate with another without any problem. This is how software as different as Outlook and Eudora can talk to each other and exchange information without experiencing almost the slightest difficulty. "In short, an open standard is a set of rules that no commercial or private entity owns. It may have been created by a person and made freely available to everyone with a license that guarantees that the rights to use this standard are free. A proprietary standard is then a standard belonging exclusively to a commercial or private entity. It can allow its use but, without a license guaranteeing free exploitation, there is a risk. The entity that owns the standard can decide to prohibit others from using it, can decide to make it chargeable, etc." For Karl Dubost, compliance with an open standard "means allowing all individuals to freely exchange information without the risk of seeing this information become inaccessible, trapped by a right of use, a particular product. There is a very important social issue in compliance with an open standard, information being the vector of creation, of the exchange of information, of the freedom of each person". In the IT field, open standards are produced collegially by an organization bringing together all the players in the field around a table and who take part in the consensus of the development of this standard. Problems of interpretation However, as much as standards seem to be well established in IT, on the Internet, there still seem to be problems of "interpretation" regarding the use of these so-called standards. Why? "Standards in IT are technical documents, explains Karl Dubost, like any technical document, they are written by groups of humans. When a particular feature is created, the social group [men and women] that created this feature debates it and decides on its behavior. "Two cases can then arise. In the first, the different members of the group have a different interpretation of their consensus and this difference is revealed when the standard is implemented in a product. The second case occurs when the standard has been made public, a third person who has not followed the discussions interprets a sentence of the technical standard differently and therefore implements it differently. "All the work of the organizations that create the standards is therefore to define them as strictly as possible in order to avoid these problems of interpretation. An organization like the W3C now requires the working groups that establish the standards to have two individual and similar implementations of each feature before it can become a standard." Public administration Last week, we told you about GIRES, this mammoth project to integrate the different resources of the Quebec government that seems doomed to failure. According to some information we have received, only the human resources management module would be retained. However, confirmation will come when the advisory committee's report is submitted. In short, following this state of affairs, it is therefore relevant to ask Karl Dubost what advantages a public administration derives from respecting open standards? In this respect, Karl Dubost's comments are enlightening and should be forwarded to the President of the Treasury Board, Monique Jérôme-Forget, so that she can take note of them. "In the context of a public administration, I do not say "advantages of respecting an open standard", but rather "absolute necessity to use and respect open standards". There is an enormous social and economic impact in respecting an open standard. The administration's information is organized according to the criteria of a standard. If this standard is proprietary and attached to a particular product of a company X. The public administration [and therefore the citizens] find themselves at the mercy of a change in commercial policy of the company that owns the product and the standard." For example, an additional product license that one is obliged to pay to be able to continue to use the standard, or the decision of the company to suddenly charge for rights to use this standard. Since all the information was a prisoner of this standard, it is very difficult to backtrack. This represents an additional cost for the company, and a reduction in its room for maneuver. "With an open standard, concludes Karl Dubost, the public administration can change products and commercial companies for economic reasons or better implementations. It can also decide to implement its own product itself if it decides that this is a better strategy, but at least the information will be stored in a format allowing it to evolve freely from all constraints." However, implementing free standards is not always a piece of cake, contrary to what one might think. The VDL2 firm, responsible for the Devoir website, has just experienced this with the creation of its own site. For the creators of the VDL2 firm, respecting free and open standards has been a constant challenge, sometimes to the detriment of ergonomics. For example, they had to sacrifice the implementation of images in the open SVG format, for many practical reasons. So the question arises: what should we respect first, the users or the standards, even if it means sacrificing usability? "I answer: "respect for which users"? For SVG, it's a bit special, because it's a relatively young standard, which doesn't seem to be easy to use in all circumstances. SVG is an application of vector graphics images. So, as with all standards, use the right standard for the right application." "I was able to see a demonstration of a map of the Paris metro in SVG with a progressive zoom on the details where all the words on the map were accessible, that is to say when you did a text search like Métro Louvre, the text part "Métro Louvre" on the map was selected and copyable. Using SVG to represent a single image that has no added value compared to the PNG or JPEG version does not give anything." Unfortunately, the arguments of the free standards enthusiasts are too often technical arguments. For Mr. and Mrs. Average, and also for the administrator, the president of a company or a president of the Treasury Board who must decide what an online government will be, and for whom, IT is not their cup of tea, how can we explain the advantages of respecting free standards? To this, Karl Dubost responds: "the social impact, in my opinion, is the most important impact of free standards. Not being a prisoner of a commercial entity deciding the future of your information, your data. Having the choice in all circumstances, the possibility of changing, of doing things differently, that is the challenge of free standards." mdumais@ledevoir.com

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With the fate of the GIRES project, or Integrated Resource Management, resting largely in the hands of an advisory committee, it is normal to wonder what the government, and more specifically Treasury Board President Monique Jérôme-Forget, will do when the final report is submitted. Will the report that the committee is to submit mean the end of this project? But, more importantly, whatever the decision, and what about the data? Finance Minister Yves Séguin has not made much of his intentions regarding the GIRES project. He has already stated that he would much rather invest in social programs than in IT. It must be said that with costs approaching $400 million, including the amounts committed, and delays that are piling up, GIRES has everything it takes to attract criticism from a government that is trying in every possible way - and often in any way, without really showing much long-term vision - to cut spending. The complexity of the project and the apparent lack of communication between Treasury Board officials and the person responsible for integration, the firm EDS, do not seem to be arguments intended to convince Monique Jérôme-Forget of the merits of the GIRES project. Moreover, as Denis Lessard reported, the EDS company has apparently changed its project manager more than half a dozen times. Advisory Committee It is largely for these reasons that the President of the Treasury Board created an advisory committee composed of only two people, consultant Jacques Lyrette, from the firm ADGA Group Consultant, one of the rare consulting firms that does not have contracts with the Quebec government, and Jacques Henry, vice-president of the Commission de la santé et la sécurité au travail. They have 30 days to submit their report to Monique Jérôme-Forget. Over the past year, the Auditor General of Quebec, Doris Paradis, and her predecessor, Guy Breton, have both denounced the amount of money spent and committed as well as the delays that continue to accumulate. And questions arise in the face of an undertaking of this magnitude. Indeed, once the project is completed, and on the condition that it receives the imprimatur of the President of the Treasury Board, will the Government of Quebec be the owner of a closed system (and thus, linking it to the dictates of a single company, in the event of possible changes) or an open system that will allow it to be, and this is a crucial role, the sole guardian of public data? In short, what about the proprietary nature of the codes developed within the current framework of the project? What about the data? Are their use and structure linked to the use of a single software? When there are modifications, will we have to do business with the same supplier? In short, would it not be better to review the project, even if it means developing a real vision of what an electronic public administration will be? Because let's not kid ourselves. At the moment, there is no real vision of what a real public administration could be. Quebec is a long way from the efforts made in this regard by the Government of Canada. Moreover, to lead the implementation of the “e-government” platform, the Treasury Board of Canada had the brilliance of mind to appoint a Chief Information Officer (CIO), Michelle d’Auray, who manages all these services like a real business while being aware of all the issues. Far be it from me to insinuate that the grass is always greener on the other side, but we must not be so chauvinistic as to not recognize a good idea. And appointing a leader who is aware of the issues to head the “Quebec e-government” is an excellent initiative that Ms. Jérôme-Forget should imitate. But let’s get back to the data. What do we know about it? What would happen if the use of public data were linked to software or the obligation to do business with a single supplier? The best example of public data linked to the choice of a supplier remains a famous case opposing the American Department of Justice and the firm West Publishing. West had always had the contract to publish in book form, the decisions of the federal courts of the United States. All the judges as well as all the lawyers of the United States referred to them, citing, of course, the number of the page where the decision was found. When electronic databases, on CD-ROM or online, began to supplant books, everyone once again referred to the sacrosanct page number. When the government wanted to allow other firms and its own internal services to use this data, and thus put an end to West's monopoly, this company did not contest its will. However, a small problem, it had filed a copyright on the use of pagination. In short, no one could use the data any more. It was linked to a supplier, West Publishing. To be able to reuse them, it would have been necessary to hire a battery of people for years to re-enter this essential data and link it to the right decision without making any mistakes. To give you a small idea of the importance of such work, let's imagine that you wanted to read a work as imposing as Les Misérables. So you ask me for the entire volumes. But, to annoy you, I give you the complete work, but without a single bound page. And to complicate your task even more, not a single page is paginated. It might therefore be interesting in this regard to draw inspiration from the recent policy on open source software as adopted by the government of South Africa, but above all, on the obligation of any supplier to deliver products using open standards and not proprietary standards that bind an administration hand and foot to the conditions of any three-letter company. It goes without saying that the adoption of open standards would also allow many small companies to be able to bid. Free and open standards Because this is the real challenge of an electronic public administration: it must force all its suppliers to deliver products using free and open standards. Contrary to what the apostles of free software think, OpenSource is only a means, it is not the main issue. If tomorrow morning, Microsoft decided to make its .DOC file format public for example, and an international committee such as the W3C decided to standardize it, then I would be the happiest person in the world, because finally, free software and proprietary software could finally compete on equal terms. It would now be possible to choose software for its characteristics, its power, its ergonomics, its price and not just for this reason that I keep hearing: "we have no choice but to use Word, because everyone uses it and no other program can interpret the .DOC file format 100%". And so we return to GIRES. What about the data? What about the file format? What about the future use of the data? Is the Treasury Board the true guardian of public data or is the free use of this data linked to a software package or a contract given to a company? However, speaking of free software, it will be important to follow the work of management information technology researcher Daniel Pascot of Laval University, who, according to his Web page, must submit to the Treasury Board on March 31, 2004, his conclusions on the deployment of free software within the Quebec public administration, a contract worth $78,180. Mr. Pascot has already submitted to the Treasury Board an initial study on the analysis of the supply of free software and the development of a government policy on the use of free software. Another file to follow... mdumais@ledevoir.com

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Wi-Fi, a wireless high-speed Internet access device, is experiencing strong growth. Its advantages - its flexibility and low cost - make it attractive compared to UMTS, the third-generation telephone network, whose licenses are very expensive. Internet access providers use Wi-Fi to develop their broadband customer base. Telecommunications operators are installing terminals in public places, but network interoperability has not yet been achieved. In the United States, 12,000 public terminals were installed in 2002 and 40% of businesses are equipped with Wi-Fi. A market that is still small but which is generating so much excitement that some operators fear the formation of a stock market bubble like that of the Internet, which burst in 2000. Wireless INTERNET is without a doubt the next technological revolution. But the solutions for its implementation diverge. The major telecommunications operators have bet on the installation of third-generation national telephone networks, called UMTS. The advantage: you can access the Internet everywhere, just as you can call from anywhere today with your mobile phone. The disadvantages: the price is very high (290 billion euros in Europe for licenses and equipment), and the profitability model remains to be determined. As a result, setbacks and handicaps are accumulating around UMTS, while the operators are in a tight financial situation. Computer manufacturers have followed another path, where the connection to the Web is made locally thanks to a radio antenna, called Wi-Fi (for wireless fidelity). The disadvantage is that access is limited to certain equipped locations, and within a limited perimeter. But the decisive advantage is, in addition to a much faster speed, a derisory cost compared to the high cost of UMTS licenses. Wi-Fi is already flourishing in the United States, home of the IT giants, but the take-off of this standard has been much slower in Europe, slowed by the powerful telecom operators, anxious to protect their massive investments in UMTS. However, the American research firm Infotechtrends does not hesitate to predict that the global market for Wi-Fi infrastructures, terminals, software and services, which started from zero in 1999, will represent more than 15 billion dollars in 2005 (13 billion euros). Even if, for the moment, the economic model of Wi-Fi remains vague. This technology has two main uses. The installation of a terminal at home or in a company building allows holders of a high-speed Internet connection to connect to the Web without cabling. The cost is minimal: a Wi-Fi card, to equip a personal computer, costs less than 100 euros; an antenna, around 90 euros for home use, 600 euros for public or professional sites with high traffic. For over a year, from Marseille to Angers, a few computer enthusiasts, inspired by the Linux free software system, have been running communities of Internet users who agree to share their existing broadband connection, installing their antennas in each neighborhood, to create a free high-speed wireless Internet network open to all. "This technology helps to abolish the digital divide, allowing access to the Internet for the greatest number. It should not be taken over by commercial interests," believes Marc Revial, one of the founders of the France Wireless Federation, which brings together these alternative networks. However, it was a computer supplier, Apple, who first popularized Wi-Fi in France, two years ago, with its Airport antenna. Today, the entry into the fray of the major Internet service providers, with their marketing power and their customer base, will make Wi-Fi mainstream: Tiscali and Wanadoo announced in May the launch of a Wi-Fi "pack" with modem and software for 200 euros, coupled with a monthly high-speed Internet subscription (ADSL) (20 to 110 euros per month, depending on the speed). "In itself, Wi-Fi does not bring us any additional income," explains Rafi Koyoumdjian, president of Tiscali France. "But it greatly reinforces the attractiveness of high-speed." It is also less on this residential use than on the prospects for the nomadic use of this technology that attention is focused, because this is where it will either complement or compete with UMTS. The goal here is to equip airports, train stations, cafes, hotels, gas stations, and campuses with public terminals (called hot spots), allowing everyone, from their laptop, to read their emails or surf the Web on site wirelessly, for a fee. Around 12,000 terminals were installed in the United States in 2002 in places accessible to the public, there should be 145,000 in 2007, according to the American consultant Cahners In-Stat. However, there again, profitability is not assured: in France, small companies like Wifix, Wifispot and TLC Mobile have cleared the ground and owners of busy sites, such as Aéroports de Paris at Roissy, the SNCF at the Gare du Nord and the RATP in certain stations of the Paris metro, are conducting experiments. The big operators are now joining in the dance. Orange plans to have equipped 400 sites by the end of the year, including 300 Accor hotels and 25 Air France lounges in airports, following agreements signed in May with these two partners. For its part, SFR will install 200 terminals this year. These two operators estimate that there would eventually be a potential of 6,000 equippable sites in France. Their payment method is twofold: they offer their business customers monthly packages combining medium-speed mobile Internet (GPRS) and high-speed portable Internet (Wi-Fi). For more general access, it will be possible to buy prepaid cards (around 10 euros for an hour). It will still be necessary for the same card to be able to be used on several sites, even if the operator is different: Orange, SFR and Bouygues Telecom announced an agreement on June 3 to promote this interoperability. Yves Tyrode, head of Wi-Fi at Orange France, acknowledges that "hot spots are now a niche market, aimed mainly at business customers". The high prices reflect this. Patrick Bardon, CEO of SFR, even admits that "the economic model is not very clear, while the number of connections per hot spot in the United States is very mixed. But the risk is minimal, you have to be present". Wi-Fi will thus only represent an investment of 5 million euros for SFR in 2003. In the short term, the big winners from Wi-Fi seem to be specialist manufacturers such as Intel, Philips, Texas Instruments, Cisco, D-Link, Proxim, etc. For telecom operators, visibility is lower: the Mercer firm predicts that in France the turnover they would derive from Wi-Fi by 2007 would be between 40 and 120 million euros. Additional title: two articles - the connection to the Web is made locally using a radio antenna, called Wi-Fi (for wireless fidelity).

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There is no computer on Michel Rocard's Parisian desk. He readily admits it: he is not "of the generation that has an easy time with computers". Chairman of the Culture Committee in the European Parliament, he nevertheless had to immerse himself, with "great difficulty", in the patentability of software, "words that were unknown to me just a year ago". Today, if he speaks about it with such animation, it is because behind the technical aspects lies a real issue of civilisation. For the former Prime Minister, the introduction of patents on software in Europe would be "very serious". It would call into question the free circulation of human knowledge. Until now, software has been officially excluded from the scope of patentability in Europe, just like mathematical equations or cooking recipes. For several months, a highly controversial draft directive has been submitted to the institutions of the European Union and aims to modify this regime. It will be submitted to the European Parliament for a vote in early September. Why do you think that Europe should not allow software patents? Since the Lascaux caves, it is not certain that humanity has progressed in its aesthetic capacities. As for its ethical and moral capacities, we are still killing each other just as much. On the other hand, in the field of technical knowledge and mastery of nature, progress is staggering. The dizzying growth of knowledge is the key to this story. Knowledge has spread by copying, everyone has copied everyone else, and that is good. With the patentability of software, we are changing the status of human knowledge. All intellectual trade in the products of the human mind, the means of connecting knowledge will increasingly pass through software. If we introduce patentability, that is to say a cost, a ban, we are putting in place an unprecedented rule. This is worrying. It does not seem abnormal to pay creators and inventors... We must distinguish two things: works, protected by copyright, and inventions, protected by patents. In the 19th century, we were first interested in the former. It was considered normal to pay creators and to guarantee the preservation of the integrity of their works. This is how copyright was created. Later, we introduced the invention patent, which prohibits anyone from using an invention without paying a fee. During the 20th century, we had no problem differentiating between the two. Unlike works protected by copyright, invention is defined by the use of matter or the forces of nature. The conviction that human knowledge must circulate implied that there should be no patents on the products of this knowledge. A mathematical equation cannot be patented. In 1972, the European Patent Convention included a simple and tasteful sentence: "Software is not patentable." What do you recommend for software? I am not against all patentability of software, but there is a limit to be respected. The supporters of free software, whom I have joined after careful reading and reflection, consider that we are dealing with an invention (which can therefore be patented) if something uses the forces of nature or acts on matter. The ABS braking system on cars is, for example, controlled by software, but it is based on the use of the forces of nature and it acts on matter. On the other hand, any software that describes or facilitates the circulation of products of the mind (a word processor, for example, editor's note) should not be patentable. However, the European Patent Office has gone beyond the initial design and granted around thirty thousand patents concerning software, which poses a problem. There is an urgent need to get out of the current legal uncertainty. For their part, the United States has developed a considerable field of software patentability. It concerns, for example, teaching methods or surgical methods (based on software and computers, editor's note). These are recipes for human knowledge, nothing else, and there is no reason to patent them. What would be the consequences of a European directive opening the way to numerous software patents? There is a difference between software invention and any other body of invention. In this sector, design is essentially sequential, thirty software programs are used to invent a thirty-first. Software patentability risks posing a terrifying financial and legal threat to software creators. It would slow down the growth of human knowledge and economic activity. It will no longer be possible to create software in one's own corner without being threatened with paying exorbitant royalties. Thousands of SMEs, often groups of friends, are starting out with ideas of this kind. You are in the same political group in Parliament as the rapporteur of the directive, Arlene Mc Carty, from the English Labour Party. And you do not agree... We do not give priority to the same dangers. There is something terrible about risking making human knowledge patentable. We must preserve a civilisation where the non-market share and human knowledge are respected. This is a conviction that I have as a social democrat.

## ###ARTICLE\_START### ID:296

Information and communication technologies are constantly being deployed. Although this deployment is uneven in the countries of the North and South, Africa intends to make up for lost ground. Some specific achievements have already seen the light of day, but a broader dynamic still needs to be created. For several decades, the information world has been divided between the written press, radio and television. This established order has been disrupted by the deployment of information and communication technologies (ICT). However, their distribution on a global scale is not equal and risks creating a new divide between the North and the South. However, these technologies play a leading role in any development policy. Not only do they provide access to sources of information and exchange networks with local and international actors, but they also enable trade, research and learning. They have already invested in various milestones of African society in various places. Thus, for example, the security of electronic banking transactions in Morocco, the translation tools of South Africa are models of high technology. Elsewhere, other countries have put their electoral files on the Internet for transparency purposes. "Drummology" and contemporary techniques Beyond these commercial or governmental initiatives, Africa's main asset lies much more in a rich tradition of sharing and mediation which is expressed by the use of community access points such as cybercafés. Remarks made at the African Regional Conference Bamako 2002 and reported by Pierre Ouedraogo, of the Francophone Institute of New Information and Training Technologies (INTIF) abound in this sense: "Amadou Top recalled that through the protocols which regulate drummology [the art of communicating between villages by beating drums] and other traditional techniques, Africans are among the precursors of the concepts of Internet protocols." Indeed, these traditions already included authentication, error correction, acknowledgement of receipt and other processes used in digital communication. Keeping in touch is essential in the African way of life. Also, even if health and education problems are real, the need to communicate remains essential. The Association of Municipalities of Mali noted, during the Bamako 2002 conferences, the multiple uses of these technologies in a perspective of local development. The search for information plays a good role, whether for technical information related to the construction of a health center, the search for financial partners for projects or even to access the news almost instantly. Giving African sources their due place However, the role of Internet users is not limited to that of the user. They are also information providers. Municipalities, professional or village organizations are not without producing a host of documents. It is high time that the information available on the Internet concerning Africa be from African sources. In rural areas, these technologies also allow distant partners to work together without wasting time on long and tedious journeys. They are also useful in the context of trade, whether at a local or broader level. Thus, the Abidjan Regional Stock Exchange reveals the attraction of the African market for foreign investors. All the conditions for establishment seem to be adjusting. However, the economic aspect remains a significant obstacle. How to deal with the high costs of commercial software, not to mention maintenance and training costs? Free software is a real alternative option to be seized by both countries in the North and the South. It allows institutions and companies that wish to do so to build dynamic web pages without paying any license fees or maintenance costs to suppliers. Linux is, for example, one of these software programs. INTIF, which is a subsidiary directorate of the Intergovernmental Agency of the Francophonie, has directed part of its action in this direction. LABTIC This institute has notably set up Free Software Laboratories (LABTIC) in certain African countries and in Madagascar. "These LABTIC are becoming real mechanisms for transferring knowledge within countries," says Pierre Ouedraogo. Not only do the training courses prepare individuals for the use and maintenance of software, but also for the development of equipment. Thus, thanks to grassroots appropriation and the resulting networking of people, they increase the development of information and communications technologies. From a general point of view, this new world information order must base its existence on the preservation of human heritage, namely cultural diversity and multilingualism, to combat the digital divide that is tending to widen. It must also ensure the maintenance of free software to guarantee the poorest access to this medium.

## ###ARTICLE\_START### ID:297

After a quasi-clandestine opening, which was not unpleasant for the 3,500 lucky people who were able to enjoy the facilities without stepping on each other's toes (visits were given in dribs and drabs by groups of 20 pre-registered), the Gaîté-Lyrique is hosting the second part of the OpenSource event. The ambitious programme (exhibitions, concerts, performances) which was to inaugurate, on 21 March, the occupation of this former temple of operetta, converted in the 80s into a temporary amusement park, had been revised downwards (Libération of 29 March), the prefecture having refused authorisation and demanded that it be brought up to standard. Since then, work has been carried out to be able to welcome the public completely legally this time. The downside: it will no longer be possible to stroll through the remains of the Magic Planet (1), some of the entrances to which have been walled up. Nostalgic for Inspector Gadget and other Cities of Gold will nevertheless be able to immerse themselves in the memory of the place thanks to the photos of the students of the Ensad who tracked down the ghosts of this abandoned Luna Park with a pinhole camera and video installations (Memogrammes by Marco Bellini and Memorandum1 by Emilie Fouilloux and Stéphanie Girard) retracing the history of the place. Crystallization. This new multimedia journey, which includes around ten installations, begins where it ended the previous time, with a sound installation by Charles-Edmond Henry. The artist recovered the electronic chips from the birthday cards and installed them in large numbers in the stairwell, causing a saturation and crystallization of the sound. Crystal Clear Sound is presented as part of a carte blanche to Ars Longa which is also exhibiting an interactive musical sculpture NOEMI, by the Music2eye collective, installed in the eighties nightclub in the basement. By tapping on the keys of a keyboard, the visitor creates a musical dialogue with the machine that corrects, distorts the melodies and integrates them into its own compositions. Right next door, in the TV studio where the Club Dorothée shows were recorded at the time, Magali Desbazeille and Siegfried Canto present their latest project, Key + Words, an intriguing peep-show of the Internet network. On four giant screens, Internet users' requests are displayed in real time. The keywords typed into the search engines (Metacrawler) scroll by, "interactive paper kiss doll", "jazz ringtone", "Heidegger", "paper airplane" "free gay mpegs", "ovnis en Colombie", plunging the visitor into the usually invisible activity of the network. The opportunity to verify that half of the requests are related to sex and its most fanciful and macabre deviations. A program analyzes the frequency of these words and associates sounds with the most searched terms. Voiceovers question the viewer about their requests in a crackling sound evoking the swarming of the network. Intimacy. Before diving into the intimacy of the Web, visitors can daydream in the Hall, where the insomniac concierge of the Tower of Babel (Lambert Wilson) climbs over sleeping naked bodies in Lydie Jean-dit-Pannel's dreamlike video installation, an imaginary journey through the dreams of sleeping humanity. The main new feature of OpenSource 2, the Gaîté is hosting a series of intimate concerts concocted by the Parisian collective Büro. The organizer of twisted electronica evenings offers "5 simple lives by 5 difficult duos", "slightly rickety" listening concerts with improvised couples. After the delightful Franco-Japanese whispers of the Konki Duet on Wednesday, tonight at 8pm it's time for the popular icons of extreme evil: the very lo-fi Hendrik Hegray will marry his old cassettes and his Bontempi synthesizer with the digital experiments of Ludovic Poulet aka Port Radium, for a bricolage of "abstract digital jazz, outdated and dissonant". (1) Visits to the Magic Planet will now be on request and will be subject to a fee.

## ###ARTICLE\_START### ID:298

Fiercely hostile to technological "drift", Tierra Entertainment, a group of nostalgics of the "golden age" of adventure games, have signed the excellent remakes of the first episodes of the King's Quest series. Launched by Sierra in 1984, King's Quest revolutionized the player experience, plunging for the first time into a graphic universe in color, almost 3D, adventure games were until then exclusively textual (1). Produced by Sierra (King's Quest, Space Quest, Leisure Suit Larry where the playboy Larry has one night to lure three women into his bed) or later by its competitor LucasArts (Maniac Mansion, Monkey Island or Indiana Jones), these games were hugely successful. Of course, the possibilities offered to the player to save the world were limited to a few basic commands like "look", "take", "go to" but the quality of the stories, the mischief of the dialogues have won over generations of players more moved by these rough-hewn characters, with angular pixel faces, than by the luscious creatures with thousands of polygons. Thanks to these die-hard fans, the graphic adventure game is now enjoying a second wind. Three years ago, Chris Jones launched an essential site for fans of the genre. Adventure Game Studio (AGS) offers to create your own "point and click" adventure game using a tool made available free of charge. While it is not necessary to be a seasoned programmer, AGS is not for everyone. It is with this free software that runs on PC that Tierra Entertainment has made its amazing remakes. The laziest can simply download the many amateur games, more than a hundred, made with AGS. Some are genuine successes with original graphics and stories: dark like Dying at Sea, the story of a disfigured boy sequestered by a cruel father, wacky like the Robert Redford Saves the Day trilogy, and others completely pop with trashy colors and crazy music like the surreal and highly recommended Richard Longhurst and the Box that ate Time. (1) In 1980, Roberta and Ken Williams, founders of Sierra, launched the first illustrated adventure game with The Mystery House. Its very rudimentary drawings (wireframe and black and white) did not prevent it from becoming a bestseller.

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## ###ARTICLE\_START### ID:300

THE 50 basis point monetary easing decided by the European Central Bank on Thursday, June 5, was largely anticipated by the market. The stock market indices, which had risen sharply in the previous days, nevertheless held up: investors only took their profits moderately. Wall Street also did not flinch at the announcement of an increase in weekly unemployment claims, to 442,000 during the week of May 31, compared to 420,000 expected by economists. The Dow Jones index remained above 9,000 points, at 9,041.30 points (+0.03%). The Nasdaq Composite Index, rich in technology stocks, gained 0.69% to 1,646.01 points, its highest level since late May 2002. Microsoft shares fell 3.14% to $24.10, following comments by its CEO, Steve Ballmer. He said the world's leading software company was facing serious competition from the open-source software Linux. IBM shares fell another 2.79% to $81.90. The world's leading computer company had admitted on Monday, June 2, that the American Securities and Exchange Commission, the SEC, had opened a formal investigation into the accounting of its turnover recorded in 2000 and 2001. In London, the Footsie index fell 0.54% to 4,104.30 points. The CAC 40 in Paris also lost 0.97% to 3,034.07 points. Orange shares recorded the biggest decline in the index (-5.84%), to 7.42 euros, with investors worried about the price war that the mobile phone operator is experiencing in Great Britain. In Germany, unemployment figures for May, much better than expected (the unemployment rate was reduced from 10.8% to 10.4%), did not prevent the DAX index from losing 1.31% to 3,039.76 points. In Tokyo, on Friday June 6, the Nikkei index closed at its highest since January 23, at 8,785.87 points (+1.48%), after the yen fell slightly against the dollar.

## ###ARTICLE\_START### ID:301

The Université de Sherbrooke is on the verge of changing the commercial landscape of the computer world. This week, it had to increase its bandwidth to allow the simultaneous connection of 256 users wishing to download its ÉduLinux operating system for free. As soon as a connection becomes available, another Internet user connects within seconds. Coincidence or not, the value of Microsoft shares has dropped by 3% this week. Remember that a Windows XP operating system retails for around $250 in computer stores. However, since Monday, nearly 400 PC users have downloaded the ÉduLinux system for free. Faced with this onslaught of 3,000 visitors each day, university officials had to take measures to stabilize their network, which is the backbone of the Internet in Quebec. They increased the bandwidth from 20 to 30 megabits, which is still barely enough to meet demand. Information is transmitted at a continuous flow of 29 megabits, day and night, with a peak of 31 megabits at night. It should be noted that the system offered is robust. It includes the information from three complete CD-ROMs. With a high-speed line, the download takes three hours. Providential help has arrived across the Atlantic. A Belgian member of the Linux community set up a mirror site in record time to redirect a certain number of Internet users. Talks are also taking place with the Montreal Cégep Bois-de-Boulogne to create a second mirror site. ÉduLinux is inspired by Linux Mandrake, this technology developed in a voluntary and community manner. It is recognizable by its little mascot, the friendly penguin. In addition to the operating system, ÉduLinux also offers a word processor, a spreadsheet, an Internet browser and an e-mail system. There are also many games and educational software, adapted to the French language of Quebec. A full version, distributed throughout Quebec, will offer Acrobat Reader and multimedia software such as Real Player, a Flash player, Java and a DVD player. It will be sold at the low price of $20, just to cover manufacturing costs. "We didn't expect such a wave," admits the Dean of the Faculty of Engineering, Richard Marceau, one of the architects of this first true Linux distribution adapted to the Quebec linguistic context. A humanist and great activist for free software, Mr. Marceau says he worked on this project as a volunteer for 18 months with the simple ambition of improving society. Shaking up the business habits of this industry seems to give him the greatest pleasure. "I receive requests for financial assistance every day," he says with emotion. The goal of ÉduLinux is to lower costs for those who have the least money and the greatest needs, namely young people." "Where will Quebec society be if its youth have to pay $500 to $1,000 to have access to basic information access tools?" he adds. Mastering these tools is essential in a knowledge economy, and high schools are not rich. This is not a criticism, it is the reality.'' In this regard, as soon as the launch of ÉduLinux was announced on Monday, the association of school board computer technicians invited Dean Marceau to present the new baby from the Université de Sherbrooke at their conference taking place this week in Mont-Tremblant. alaroche@latribune.qc.ca

## ###ARTICLE\_START### ID:302

Scheduled to succeed Windows XP at the end of the year, Microsoft's new operating system, known under the code name Longhorn, is already in the hands of thousands of Internet users who are exchanging the preview version on the Internet... Despite many teething problems, this first draft gives a good overview of several new features. Among the most important, we will note the appearance of a new file system, WinFS (Windows Future Storage), designed to optimize document searches by relying on database technology, but also operation with 64-bit processors and numerous improvements in the interface and display quality. Microsoft has notably learned from Apple, since the presentation of menus, icons and windows is enriched with relief and transparency effects. A new menu bar, which can be personalized, is installed vertically on one side of the screen and allows you to place the most used elements, recently opened applications, etc. It also provides access to Windows functions and programs, and lets you display a clock, choose a wallpaper, change virtual screens, or scroll through a series of photos. At first glance, these new features are more inspired by processes widely used by other software or other systems (Unix, Mac OS X, and Linux in particular) than they are a real revolution. In fact, it seems that they are used to mask what is both the most discreet and most controversial innovation of the system: Palladium technology, renamed "Next-generation Secure Computing Base" (NGSCB). What is it? A set of hardware components and programs that are activated as soon as the computer starts up to identify the user and check the PC's configuration and the compliance of the installed software. Several security functions then protect the computer against the risks of intrusion, but also to lock the use of certain peripherals or software. In fact, each time a software is executed by the user, NGSCB will give him the possibility of requesting his instructions from a server. Which will only authorize it to operate if certain conditions are met (paid license, up-to-date subscription, current rental contract, etc.). For example, Excel will be able to prohibit the opening of a spreadsheet after a specified period, Outlook will be able to prevent an e-mail from being forwarded, a video sequence will be able to be read only by certain users, and an audio file will be able to deactivate after a certain date. Microsoft argues that these provisions make it possible to securely ensure the digital rights management desired by the media industry to protect their productions. "Record companies will be able to sell you music that you can only listen to three times, or only on your birthday," explains Ross Anderson, a researcher at the University of Cambridge, specializing in computer security. "All sorts of new marketing variants become possible." Moreover, to limit piracy, this system will be able to prevent the downloading of illegal copies of software and audio or video files. In short, with Palladium, the user is no longer really in control of his computer. "You can't touch the software, but the software can communicate securely with the publisher," summarizes Ross Anderson. Not to mention that this system calls into question the transparency of the processing of personal data, as defined by the European directive on data protection. A recalcitrant publisher could very well prohibit access to a file based on its content or because it was created with competing software. It is understandable that these possibilities have provoked many reactions around the world, including in France. "A private company, however powerful and respectable it may be, would not have the moral right to "spy" on the entire World Wide Web," explains Senator René Trégouët in his newsletter (1). Faced with such actions, I think it is becoming urgent for all democracies to promote the development of "Open Source" communities in their territories, and to force their administrations to use free software. Only in this way can governments and our fellow citizens be assured that the software they use does not hide spyware or contain back doors." (1) www.tregouet.org/lettres/rtflash.asp ?theLettre=275 Didier Sanz

## ###ARTICLE\_START### ID:303

The Université de Sherbrooke is creating a bit of a stir in the world of computing today: it is launching a new PC operating system, completely free for the Quebec education network. This open-source system is called ÉduLinux. It is inspired by Linux Mandrake, a technology developed on a voluntary and community basis, whose popularity is now so great that it makes the giant Microsoft tremble. The ÉduLinux version was designed by three enthusiasts from the Université de Sherbrooke: Richard Marceau, Dean of the Faculty of Engineering, Benoît de Lingeris, a doctoral student in physics, and Jean-Michel Dault, MandrakeSoft's representative in Quebec. Already considered a little gem, ÉduLinux would be the first real distribution adapted to the Quebec linguistic context and an important milestone in the recognition of free software in Quebec. It can be used by everyone, without distinction, and it integrates powerful office applications as well as server software packages. "We were aware that there was a demand for a Linux distribution adapted to the Quebec context. We took the time to design it, testing and retesting the best possible distribution. From the start, ÉduLinux installs with a French-Canadian keyboard, French dictionaries are now present in the OpenOffice version, the default paper format is now 8 1/2 by 11 and not the European A4 and all applications are in the language of Molière," said Mr. Marceau. A basic version, available free of charge on the site http://www.edulinux.org, includes the operating system, a word processor, a spreadsheet, an Internet browser, and an email system. There are also many games and educational software, adapted to the French language of Quebec. It comes in the form of images of three CD-ROMs to download and then burn yourself. A full version is also marketed at a very low cost. It offers Acrobat Reader and multimedia software such as Real Player, a Flash player, Java and a DVD player. EduLinux will allow educational organizations to choose between purchasing expensive software or saving money to better invest in training and educational content. The Université de Sherbrooke has itself undertaken the implementation of ÉduLinux in certain laboratories and at the Carrefour de l'information on the main campus. Dean Marceau also points out that the Linux system, symbolized by the famous penguin, is less resource-hungry than other systems. This allows all the old Pentium computers to be revived. alaroche@latribune.qc.ca

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The Université de Sherbrooke is creating a bit of a stir in the world of computing today: it is launching a new operating system for microcomputers (PCs), completely free for the Quebec education network. This open-source system is called ÉduLinux. It is inspired by Linux Mandrake, a technology developed by volunteers and the community, whose popularity is now so great that it makes the giant Microsoft tremble. The ÉduLinux version was designed by three enthusiasts from the Université de Sherbrooke: Richard Marceau, dean of the Faculty of Engineering, Benoît de Lingeris, a doctoral student in physics, and Jean-Michel Dault, MandrakeSoft representative in Quebec. Already considered a little gem, ÉduLinux would be the first real distribution adapted to the Quebec linguistic context and an important milestone in the recognition of free software in Quebec. It can be used by everyone, without distinction, and it integrates powerful office applications as well as server software packages. "We were aware that there was a demand for a Linux distribution adapted to the Quebec context. We took the time to design it, testing and retesting the best possible distribution. From the start, ÉduLinux installs with a French-Canadian keyboard, French dictionaries are now present in the OpenOffice version, the default paper format is now 8 1/2 by 11 in. and not the European A4 and all applications are in the language of Molière," said Mr. Marceau. A basic version, available free of charge on the site www.edulinux.org, includes the operating system, a word processor, a spreadsheet, an Internet browser and an email system. There are also many games and educational software, adapted to the French language of Quebec. It comes in the form of images of three CD-ROMs to download and then burn yourself. A full version is also marketed at a very low cost. It offers Acrobat Reader and multimedia software such as Real Player, a Flash player, Java and a DVD player. ÉduLinux will allow educational organizations to choose between purchasing expensive software or saving money to better invest in training and educational content. The Université de Sherbrooke has itself undertaken the implementation of ÉduLinux in certain laboratories and at the Carrefour de l'information on the main campus. Dean Marceau also points out that the Linux system, symbolized by the famous penguin, is less resource-hungry than other systems. This allows all the old Pentium computers to be revived.

## ###ARTICLE\_START### ID:305

This week was the launch of ÉduLinux, the first 100% Quebec commercial Linux distribution. Designed by three enthusiasts from the Université de Sherbrooke, this little gem is the first true distribution adapted to the Quebec linguistic context and an important milestone in the recognition of free software in Quebec. Champagne! The rumor had been circulating for many months already, namely that a Linux distribution adapted to the Quebec cultural and linguistic context was in preparation. It was even said that this distribution, inspired by Linux Mandrake, would have the imprimatur of a prestigious university and that it would be developed taking into account the specific needs of students of all ages. Starting tomorrow, this distribution awaited by many free software aficionados will be available on the ÉduLinux website. The dream of three users convinced of the virtues of free software, a philosophy that managed to make the giant Microsoft tremble, will now be very real. The best of Linux And, despite its name, ÉduLinux is much more than just a distribution designed for the world of education. Taking the best of Linux Mandrake, ÉduLinux is a distribution that can be used by everyone, without distinction. ÉduLinux integrates powerful office applications as well as server software packages. In short, ÉduLinux is anything but a restricted distribution. Behind ÉduLinux, there is an institution, the University of Sherbrooke, which believed in the project, and three enthusiasts who did not skimp on the hours to create this first distribution with a maple syrup flavor. Richard Marceau, Dean of the Faculty of Engineering at the Université de Sherbrooke, Benoît de Lingeris, PhD student in physics and former president and current vice-president of the Groupe d'Utilisateurs de Linux à l'Université de Sherbrooke (GULUS), as well as Jean-Michel Dault, MandrakeSoft's representative in Quebec, all pitched in to make a project a reality that they had spent several months working on. In fact, this final version of ÉduLinux is actually the fourth version they worked on. More than just a distribution Because according to Richard Marceau, "we were aware that there was a demand for a Linux distribution adapted to the Quebec context. We took the time to design it, testing and retesting the best possible distribution. From the start, ÉduLinux installs with a French Canadian keyboard, French dictionaries are now present in the OpenOffice version, the default paper format is now 8 1/2 by 11 and not the European A4 and all applications are in the language of Molière." The three affirm together, "ÉduLinux is more than just a distribution. For us, it is a way to help lower the significant costs related to IT, to allow everyone to be legal and above all, to allow all Quebecers to have the choice, the choice to decide and to have the means to use technology." The four CD-ROMs of the ÉduLinux distribution, in addition to the office applications, contain everything you need to write, calculate, store, remember, play, study and learn... in French. And don't forget, ÉduLinux being OpenSource, this product belongs to everyone. And now that the product is finally available, its three designers want it to live, to be taken up and improved by the Quebec community. For Clément Laberge, an observer of the education scene, the arrival of ÉduLinux is timely: "It is interesting to note that the values underlying free software are the same ones that the future education reform seeks to promote, that is to say, collaboration and community project work. So there is a coherence here. For school boards, with the arrival of ÉduLinux, it will be time to choose. Is it better to spend practically all of their budgets on acquiring expensive proprietary software packages or to invest better, for less, and instead invest the money saved in training and educational content?" We will talk again about this Linux distribution in the coming weeks, because not everything has been said, due to lack of space. I dare to believe that its three authors will forgive me for not having been able to deliver all their thoughts on ÉduLinux. \*\*\* Few technological issues Contrary to what one might believe, there are few technological issues related to the release of this Linux distribution. Just like the latest versions of Windows, Linux is stable, in addition to being now simpler to use and easier to install. However, it is more secure (even if some security holes also disrupt free software), and above all, much better equipped to deal with viruses, worms and other crap that affect Uncle Bill's universe. However, the economic and social issues are much more important. First, Linux is free. It is and will remain so forever, because of its GPL license, just like a large majority of free source code software. In a difficult budgetary context, it will now be much more difficult for knowledge institutions not to consider the Penguin. Second, Linux is no longer a technology reserved for a few "geeks" lost on planet Earth. Linux is now the choice of many public administrations, the latest in the list to have chosen to convert to free software being the City of Munich in Germany. This is how more than 14,000 Bavarian workstations will join the free software movement, despite the personal intervention of Microsoft president Steve Ballmer and the recent promise of its leaders that Linux would no longer pass. Even if it meant giving away its software packages. And yet, despite everything, free software continues to gain ground in France, India, Chile, South Africa and almost everywhere in the world. By choice. Third, Linux is a very interesting choice for public administrations and knowledge institutions because almost all OpenSource software packages proclaim their adherence to free standards. Gone are the days when an administration was subject to the dictates of a company and the use of its data linked to the use of a single software whose conditions of use could vary according to the wishes of its publisher. Microsoft's new "User License 6.0" has irritated many IT managers to the highest degree. Linux also allows the entire society to be legal and respectful of its own laws on the right to use a software package. Let's not kid ourselves, the adoption and quasi-standardization of the MS Office office suite in public administrations, knowledge institutions and private companies has been an incentive for piracy in our homes. With the marketing of a Linux distribution that respects the cultural and linguistic context of our province, the government in power has the chance to achieve several of these objectives. Economic objectives, by reducing and even eliminating the cost of software acquisition. Innovation goals, a cornerstone of its program, by being among the first administrations in North America to encourage the use of free software. Social goals too, by allowing everyone to have access to technology without having to mortgage their budget or, again, without encouraging piracy. Now the question remains whether our society is ready to examine these new options that finally allow us to have a choice, or whether we must still be content with this water-carrying attitude? mdumais@ledevoir.com

## ###ARTICLE\_START### ID:306

A completely free system launched in 1994 offers its users a new philosophy of information technology. Ten years later, will Linux be able to supplant Windows on the desktop of the average Joe? Specialist magazines have high hopes for the importance of Linux in the 2000s. As Business Week headlined in March, the time has come for the Linux revolution. The famous penguin is slowly moving away from its nerd image to take on the big guys. Some distributors are stepping up their efforts to offer the same ease of use as Windows or MacOS, with software of the same quality and a choice of aesthetic interfaces. The goal: to offer a choice other than these two big players on the mass market. Forget about software to buy or pirate, hardware that quickly becomes obsolete, and restrictive user licenses. Linux is an already complete set of free software: all you have to do is download it (see other article). It belongs to everyone and no one; Hundreds of organizations and individuals are working together to develop it. The king of heavy computing, Linux powers 66% of Web servers and 27% of corporate servers worldwide (January 2003 figures). But its market share among the general public is still below 5%, far from the critical mass needed for a real "revolution". "However, Linux must be seen as a product for basic users," thinks Jean-François Métivier, of Linux Québec Technologies, which offers services to businesses. "Most people use their PCs for the Internet, office work and listening to multimedia documents. For that, Windows is no longer the only solution. Linux meets these needs." "A major breakthrough is coming," confirms Michel Dagenais, a professor at Polytechnique who founded the Linux Québec association. "The arrival of the OpenOffice office suite is a major trigger, as well as the new tools for the Web and multimedia. The interface and installation have become user-friendly, and distributors like Red Hat (in the United States) or Mandrake (in France) are working hard to ensure that everything integrates well." On the software side, there are still some gaps. Games are rare, apart from titles like Wolfenstein or Unreal Tournament, for which you can find (paid) adaptations for Linux. And for fans of Adobe and Macromedia, graphic design tools are still weak. Free the software! The stakes of Linux's rise are enormous, both economically and philosophically. Indeed, Linux embodies a new approach to information technology, comparable to that of generic drugs in the pharmaceutical industry. It all started with the "free software" movement, launched 20 years ago by Richard Stallmann in San Francisco. His philosophy: freely distribute the source code of software (the basic ingredients, which commercial publishers keep secret), so that the entire community can work to improve them. When the Finn Linus Torvalds laid the first stone of Linux, this system became the spearhead of the movement. "With free software, you are never stuck," explains Mr. Dagenais. "Any programmer on the Internet can make improvements, fix a problem in less than 24 hours, or produce a version in the Inuit language." In the programming community, the GPL license (its legal name) is also a guarantee of quality: "when you know that others will look at your code, you program better!" Major players are involved in this movement, starting with IBM: a billion dollars per year in development, 250 programmers, and several support centers. Free software allows them to sell a service without having to pay for intellectual property. Two camps This movement has divided the computer world into two camps. On the one hand, the free software community is making Bill Gates their scapegoat. Meanwhile, Microsoft (Windows) and Sun (Unix) are wondering how to fight a free and volunteer-developed competitor. Officially, the giant Microsoft is calm, even though Linux has already beaten it on the server market. "Linux is a competitor to Unix, not to Windows," says Elliott Katz, product manager at Microsoft Canada. "In terms of free, it also costs money to switch to Linux: you have to pay for maintenance, support, training." Microsoft has funded many critical reports in recent years, calling Linux a "cancer on intellectual property" and going so far as to associate it with cyberterrorism, in the midst of post-9/11 paranoia. The preference of many hackers for Linux is not for nothing. A quiet revolution? Finally, is the penguin invasion of the consumer market coming soon? "The movement is weak in North America, unlike in Asia, for example," says Chris Pratt at IBM Canada. IBM has already tried to sell family PCs equipped with Linux, without success. But it is Wal-Mart that is currently succeeding in this bet, by selling computers in the United States for $200, thanks to Lindows, a version of Linux that imitates the Windows environment. In the land of the quiet revolution, the movement is still timid, according to Mr. Métivier: "Linux, for the basic user, takes time. Outlook (Microsoft's messaging software) has created a dependency for some, even if we find the equivalent in Linux. But everything is still to come. Educational institutions have already followed suit; government agencies are testing its benefits; companies will soon have confidence." The general public will only come to Linux once these stages have been completed. Sylvain Carle, a Montreal programmer who helps newbies switch to Linux, is optimistic: "People don't even notice the difference anymore, it works just as well once it's installed. They get similar software without having to pay to be legal." Based on our own testing, it's a while before Linux is truly as easy to use as Windows or MacOS for the average user. Without expert help, installation procedures can still be off-putting to newbies, as can some tasks that require text-based commands. However, the simplification and integration efforts that are underway could precipitate the "Linux revolution" in North America within the next one to three years. The progress made in 2002 has already been impressive. LINUX IN EIGHT QUESTIONS Political change is all the rage. Why not change your computing habits too, by joining the free software crowd? But before joining the penguin party, the curious beginner must know the basic concepts of Linux, which are radically different from those of Windows. Is it really free? Only the software license is free, and all of them can be downloaded freely from the Internet. Installation, maintenance, and training services are offered by various private consultants. Free help can also be found from "user groups". Where can you get it? On the Internet. There are several preconfigured Linux kits, distributions. Each includes a host of software from which you can choose. CD images to burn, as well as help manuals, are available on the websites of the most popular distributions: www.redhat.com (USA) www.mandrake.com (France) www.suse.com (Germany) Where is my Word? My Outlook? My Photoshop? They have their equivalent on Linux. OpenOffice is a perfect replacement for Microsoft Office, Evolution is on par with Outlook, and Gimp takes over the major functions of Photoshop. For some tasks, you will even have the choice between two or three software programs. Will my icons be cute? That depends on your taste. Linux offers the choice between two different graphical environments, Gnome or KDE, each time you start your computer. Afterwards, dozens of themes and icon sets can be downloaded. Will I be able to connect my video camera? Yes. Linux now recognizes a wide range of peripherals. That said, their manufacturers do not always provide technical support. Thanks to its flexibility, Linux can also become the server of a computer network, host websites and email accounts... but it is better to know your stuff! Will I be able to create limited access for children? Better than ever. Linux is primarily designed as a server; the owner of the system (the "superuser") can create user accounts that only give access to specific functions of the system, in a completely impermeable way. Will I be able to keep Windows? Yes, but the operation is not simple. This involves configuring the computer so that it offers the choice of both systems at startup (dual-boot). For this, you will need to call on a specialist. Who can help me? In Quebec, more than a dozen "user groups" can provide you with their help and their passion if you ask them nicely. Also, free Linux installation days (Install Fest) are organized regularly. The Linux-Quebec association will tell you everything: www.linux-quebec.org.

## ###ARTICLE\_START### ID:307

Alstom increases its job cuts plan DURING the meeting of the France group committee on Monday 19 May, Alstom management expanded its job cuts plan in the energy (power) branch. Instead of the 620 announced, the workforce reductions were to exceed 1,100, to which the unions added the 89 positions at the Paris headquarters and the 75 at the Levallois-Perret (Hauts-de-Seine) headquarters. The Belfort site is the most affected, with 490 job cuts out of 1,163 people in the steam turbine and electrical machine units (Le Monde, 20 May). At the same time, 170 jobs are being cut in the maintenance activity, two thirds of which are in Belfort and the rest in La Courneuve (Seine-Saint-Denis). On this site, 300 positions are under threat out of 500 at the Rateau turbine unit. In the hydraulics sector, 125 out of 570 jobs are affected in Grenoble (Neyrpic). In addition to legal action, the unions are planning a European demonstration on June 5 in Paris. The German equipment group announced on Monday the purchase of 3.29% of its own capital from IFIC Holding, owned by Iran, for 406 million euros. The company thus wants to avoid "restrictions on access to the American market and serious economic losses in the activity in the United States". IFIC Holding's share is thus reduced to below 5%. The Iranian state sold at 24 euros per share while the stock has been trading at around 10 euros since January. The fourth largest French construction group announced on Monday that it had proposed to its British shareholder Apec an offer to buy 51% of its capital from the 80 senior executives associated with Barclays Private Equity France. The two parties have given themselves until July 31 to negotiate, in particular the price. The luxury label will entrust its women's ready-to-wear collections to designer Jean-Paul Gaultier - it owns 35% of the latter's fashion house. The current designer of the line, Martin Margiela, will devote himself to his own line. The American computer group, which holds the rights to the historic version of the Unix operating system, claims that parts of the Unix code are found in Linux free software. After having sued IBM for $1 billion (860,000 euros) in March for having developed Linux, SCO said on Monday that it had sent letters to about a hundred large companies that have adopted the Linux system to "warn them of the legal danger". The British distribution group announced on Tuesday that it had made a pre-tax and exceptional profit of 721.3 million pounds (1.012 billion euros) for the 2002-2003 financial year, an increase of 11.5%. The airline announced on Monday that it had made a pre-tax profit of 135 million pounds (190 million euros) for the 2002-2003 financial year, which ended on March 31, compared with a loss of 200 million pounds in the previous year. The presence of American aircraft manufacturers at the Paris Air Show will be down 20% on the 2001 edition. Following the Franco-American dispute over Iraq, the American army will be poorly represented.

## ###ARTICLE\_START### ID:308

La Presse Affaires presents a series of 20 columns on small and medium-sized businesses published in collaboration with HEC Montréal. To be continued next Monday. The free software movement, until recently the exclusive territory of computer geeks, is beginning to make serious inroads into the world of business and corporate computing. Most major computer manufacturers and software publishers have transformed their product lines to adapt them to the LINUX operating system, the best-known free software. IBM will invest more than a billion US dollars in it. The famous penguin representing LINUX even made the cover of the March 3 issue of the very conservative Business Week magazine. Free software is usually developed voluntarily by a community of programmers and made available free of charge on the Internet to potential users. In addition to being free, free software allows its users to use, modify and distribute it as they see fit. To do this, the source code, i.e. the instructions for the computer program, must be available. Without access to this code, the user cannot understand exactly how the program works or modify it to suit his or her needs. A company that decides to adopt free software can usually obtain it by downloading it for free from the Internet. It can then install it on as many computers as necessary, modify it to suit its needs, and distribute it to other companies without any constraints. This is a very different approach when compared to that of commercial software for which the source code is not available and where very strict licenses govern the installation and distribution of copies. The number of free software has multiplied in recent years to the point that a company can now build almost its entire technological infrastructure from this type of software. To illustrate, a SME could buy IBM or Dell computers equipped with the GNU/LINUX operating system and then use MySQL as a database server, SendMail as an e-mail server, Apache as a Web server, StarOffice as an office suite, PHP as a programming language to develop Internet applications and Compierre as an ERP (integrated software supporting business processes). All these software are available for download on the Internet. The question that SME managers must ask themselves: will the resulting infrastructure be reliable and efficient? Companies must consider open source software in their technology decisions for the following reasons: (1) Several of these software programs, including GNU/Linux Apache MySQL PHP SendMAIL, have reached the critical mass necessary to eliminate the risk that the project will disappear overnight and ensure that the expertise is available. According to an IDC study, 14% of all servers run on LINUX and this percentage should reach 25% in 2006. Similarly, it is estimated that 50% to 65% of all websites run on the Apache server; (2) Several companies such as Amazon, Yahoo and E\*Trade whose very survival depends on a high-performance and secure technological infrastructure have adopted Linux. This shows that this software is ready for corporate use in vital systems; (3) The LINUX operating system now has the support of major computer manufacturers and software publishers, thus ensuring a high level of support; (4) Several studies have shown that LINUX and APACHE free software are as reliable and efficient as equivalent commercial software. The website http://www.dwheeler.com/oss-fs-why.html summarizes a large number of quantitative studies on free software; (5) Finally, the last reason but not the least is the cost. Several independent analyses conclude that the cost of a technological infrastructure is lower if it is built with free software. For example, Cybersource modeled a company of 250 users and arrived at the conclusion that it is possible to save 35% by using a Linux/free software solution compared to a proprietary Microsoft solution. However, a few warnings are necessary before moving forward with free software: (1) Ensure that the free software that interests us has reached the necessary critical mass; (2) Free software is less integrated with each other than products from the same company can be. This can lead to additional costs when developing organizational information systems; (3) The world of free software can seem quite complex to a layperson. For example, when a company decides to buy Windows, it knows by definition that it will do business with Microsoft. On the other hand, if it decides to adopt LINUX, it must choose from around fifty different suppliers; (4) There are currently very few business applications (accounting, customer management, procurement) that are open source and many commercial vendors have not yet migrated their applications to LINUX; (5) There are subtle differences in the licensing of open source software. The business must understand the implications. In conclusion, popular open source software such as Linux and Apache are now viable alternatives to commercial software and must be included in the decision-making process. However, a very serious analysis of the features, performance and reliability must be done for lesser-known software. The author is a full professor and director of the Information Technology Education Department, HEC Montréal.

## ###ARTICLE\_START### ID:309

THE ACTIVITY OF MULTINATIONALS in the Third World has long been synonymous with controversy. Poor countries need capital and labor; but they sometimes resent their dependence on foreign firms. Certain situations prompt the question of whether poor countries can participate in high-value economic activities. For example, when athletic shoes made in the Third World are sold in the West thanks to sports stars recruited on lucrative contracts. An examination of the facts quickly allows us to go beyond this view of multinationals and, more broadly, of the division of labor in the international economy. We are about to witness a major transformation in the distribution of innovation. The new frontier is that of the software industry, and more specifically, the "open source" movement (so-called "free" software). In this model, everyone can contribute to the program because the source code is public. Linux, Apache, and Perl are examples. However, before we can fully utilize this resource, we must first understand its optimal use. Approximately one-third of the world's wealth is in the countries that contain two-thirds of the world's population. In the complex division of labor among nations, they provide labor, markets, and natural resources. This is called Babbage's global economy. Charles Babbage, inventor of the first mechanical computer device, wrote that industry is not just about physical tasks, as Adam Smith described. It also has a mental division of labor, where highly paid thinkers direct and decide the operations of the vastly more numerous manual workers. In today's global economy, these decision-makers sit in laboratories or development centers in Silicon Valley, Stuttgart, or Tokyo. The Third World is the factory; the developed countries are the reservoirs of thought ideas. But the fact that two-thirds of the world's population is in poor countries means that two-thirds of today's brains are there too. Except for the top engineers who leave India or China for Silicon Valley, very few of them are engaged in the use and production of knowledge and innovation. But all this is nonsense. Thanks to advances in telecommunications, it is possible to do better, by taking advantage of the tremendous potential of distributed intelligence. Our study, based on interviews with dozens of engineers and managers from four countries (the USA, Ireland, India and Singapore), shows that advances in global infrastructure make it possible to fully exploit the opportunities offered by the digitalization of products and production processes. Most global projects are carried out at a single site. Indian IT service providers (notably Tata Consultancy Services, Infosys, and Wipro) are increasingly attractive to many Western companies (General Electric Capital, Hewlett-Packard, Siemens), with their Overseas Development Centers (ODCs) that specialize in these clients. These projects work well for three reasons: modularity of tasks, communications, and "shared context." Modularity allows design work to be done close to the client. The utility of communications is obvious: e-mail, the Internet, and cheap video or voice links allow global coordination. Finally, "shared context" refers to the ability of designers, programmers, and clients to form common methods of understanding. All this, however, has its limits. First, cross-border software coordination is particularly problematic when the task is creative. Second, when software is developed internationally, problems can arise in the transfer of certain types of knowledge. Finally, the lack of a "shared context" limits coordination as people interpret the world according to their own criteria. (...) The software industry, and more specifically the "open source" movement, is potentially revolutionary in the sense of a global distribution of innovation. But is "open source" a better way to organize software production? We sometimes tend to think that the answer is yes (...). Economics clearly aims at an evolution of the global economy where more innovations will be developed outside rich countries. Communication costs fall as diversity increases and brains are largely located in poor countries. The biggest obstacle is not economic but psychological. In this respect, we can say that we are in a transition period, at the beginning of the process of global innovation. "Open source" carries a strong image that shows how innovation can be widely distributed, although it is not necessarily the main driver. Instead, the emergence of innovation hubs on the periphery will radically change the way we innovate, without threatening innovation in rich countries. On the contrary, it represents the hope of creating a more prosperous global economy.-

## ###ARTICLE\_START### ID:310

Transfert, the high-tech resource den, is back. Coupled with a monthly paper magazine, it had disappeared in May 2002, weighed down by the setbacks of the new economy. Today, if the team is smaller, like the financial resources ("fifteen times less"), the desire to deal with new technologies from their scientific, economic, political, social and cultural aspects has not disappeared. "The editorial field is a little broader, as is that of new technologies which, beyond the new economy, affect music as well as GMOs", explains Alexandre Piquard, one of the five editors-in-chief of the new Transfert. If the editorial orientation is collegial, the other originality of the project is to bet on an economic model of "hybrid press agency", explains Alexandre Piquard. The association, which took over the title (and the archives), with a team composed of former employees of the first version, is keen on its independence. While projects on the Net have become a rare commodity, Transfert is reappearing in a "free" version (meaning under free software, whose source code is made available). The office is composed of activists from the early days of the Internet, such as Valentin Lacambre and Laurent Chemla. To operate as freely as possible, the team (five permanent staff, about fifteen freelancers) offers a news feed (about ten articles each day) and a battery of tools developed by Free Software activists (semantic engine, lightweight publication tool, email alert in the event of an update on a pre-selected page, etc.). The biggest consumers of information signed Transfert will be asked to subscribe (15 euros per month), the others will continue to pick up what they like. Transfert is giving itself until the end of the year to balance this model. With 1,000 subscribers, it's a done deal.

## ###ARTICLE\_START### ID:311

Officially, it is a question of "unprecedented ways of meeting and discovering". Unofficially, the Gaîté lyrique numérique, a former temple of operetta and dance that has been closed for over ten years, did not open as planned on March 21. And yet, in one week, a thousand Parisians, in groups of 20 pre-registered (1), discovered the trail of multimedia, sound and video installations, inside the mythical decor of the Magic Planet, the stillborn amusement park of the father of Inspector Gadget. Condition for access: sign a waiver for a visit "at your own risk". The prefiguration team of the future "cultural center dedicated to new media" (opening in June 2006) therefore transformed the grand opening party (electronic concert, exhibition, performances), the Paris police headquarters, which is particular about the conditions for welcoming the public, having refused authorization. To bring it up to the standards of the prefecture, it would have taken 750,000 euros. Impossible, when an initial envelope of 300,000 euros has already been spent and the budget for the "architectural gesture" of the future temple of new media has not yet been voted. On March 10, the construction team noted that "concert organizers and artists are paying the price for the poor relations between the competent services of the police prefecture and the City of Paris." Today, despite an event split into three parts (2), the time for controversy is over. Pierre Bongiovanni, head of this Gaîté en chantier, says he is delighted, "we are just starting to play with a place." And Christophe Girard, deputy for culture at the town hall, says he does not have to touch a comma of the project. This is a very bad start for one of the poles of the new Parisian culture.... (1) www.la-gaite-de-paris.info (2) Next "OpenSource" from May 16 to June 1.

## ###ARTICLE\_START### ID:312

The Canadian Association Against Software Theft (CAAST) is once again campaigning against companies that are not in compliance and that violate the Copyright Act by installing pirated software. Good for them, CAAS is within their rights after all. But be careful, often thinly veiled threats can backfire on the person who makes them. Perhaps your company is one of the many others in the Montreal and Quebec regions to have received a letter from the CAAS asking you to audit your computer equipment to verify whether or not you were in compliance with the law. In all its kindness and generosity, the Association will even promise you complete absolution, three dozen black balls, two bags of soft caramels and a Cherry-Blossom during the month of March. Yes, the CAAST promises you a grace period during the entire month of March. You are good, you are wise and you are getting yourselves in order (maybe you already were) with the Association during the month of March? If the ACCVL decides to come visit you to conduct an audit, and it finds that one of your nasty vice-presidents has installed an old version of Tetris on his laptop in addition to an illegal version of Word, you will only get a little slap on the wrist. "Naughty rascal, don't do it again". However, and do not forget, despite the convoluted wording of the ACCVL letter that the Montreal and Quebec societies received, convoluted wording to the point of making me believe that this letter was written by a Toronto lawyer and translated from English to French by a Serbo-Croatian translator in Yellowknife, do not forget that you have the choice to refuse to conduct the audit. No mercy However, if ever the ACCVL decides to come and pay you a polite visit, knowing that you have not responded to its request in March. It warns you with all the politeness required... that it will not fail you. No mercy for pirates. And once again, let's be clear, nowhere in its letter does the ACCVL, an association of which companies such as Microsoft, Apple, Adobe, Symantec, Macromedia and a few other small companies of the kind are part, accuse you of anything. As far as I know, the presumption of innocence is not questioned by these American companies. But the whole thing remains convoluted as a formulation. To the point that I wonder how an industrial association can claim to play the role of policeman and judge at the same time. All this is not really clear to me. In short, you have the choice. You have the choice to respond to the ACCVL, you have the choice to tell them Cambronne's word and ignore them or, you have the choice to make sure that the ACCVL cannot in any way push you to the wall. What do you want, I am like that, even with barely veiled threats, I become stubborn, I balk and I change feeding troughs. Personally, I have always had the principle that one does not threaten one's client, whether he is an active client, or a potential client. One of the very simple ways, you can completely get rid of the software of the above-mentioned computer companies to replace them (legally) with those of other companies. For example, Corel is not on this list. However, it offers a high-class software package with its new complete office suite Corel Word Perfect which, by the way, adopts as its file format open, free and known standards, and not a proprietary format. Obviously, you can also switch to free software. Contrary to popular belief, free software is not only on OpenSource platforms like Linux. Free software is also present on operating systems like Windows or Mac OS X. For example, the very efficient and complete OpenOffice office suite works wonderfully well on Windows. And it is in French and free. Just like that, by the way. Hop! Recently, I told you about a small company that made the jump to OpenOffice, even though it had refused to subscribe to Microsoft's new user licenses and pay the hundreds of dollars accompanying the renewal of these licenses. That too is its right. It has every right to do so. Having probably also received the little letter from the ACCVL, and having decided to make the leap to free software, the technologist blogger and businessman Sylvain Carle, whose notebook, Afroginthevalley, is a meeting place for my French-speaking community of notebookers, in short, the frog lost in the valley, is making you an offer that is almost impossible to refuse, especially if you are a small business or a non-profit organization, and your budgets are limited: Listening only to my innate sense of justice and following the current situation with my keen eye, what can I do? I can't stop thinking about the hundreds of companies that are forced to face this cancer, this crime, this outrage, this affront, what am I saying, this scandal that is using a pirated copy of Windows or worse, MS-Office! Drama and gnashing of teeth! Screams and tears! Fear not, valiant entrepreneurs and self-employed workers confronted with your sense of right, I have the solution for you! Yes, like a noble slayer of the dragon of vice, I have found the Holy Grail of freedom of conscience! By the end of March (and even in April), I am ready to go to your offices and install a free copy of Open Office (even leaving you the CD before leaving) to any SME or self-employed worker who asks me for it (offer limited to the greater Montreal area, or else you pay the shipping costs)! And on Windows too! Yes, a solution that will allow you to sleep soundly, with a clear conscience and a wallet freed from the tyranny of paid updates! I can vouch for it, I have been using Open Office for three months and I have never needed MS-Office. Of course, Open Office does not do 100% of what MS-Office does, but probably 85%-90%. It is up to you to decide if the remaining 10% is worth the cost of the Microsoft license. I take this opportunity to invite geeks of all kinds to do the same with their immediate entourage. You will finally be able to understand why Open Office is part of free software. Thanks again to the ACCVL for this very generous action for the cause of free software. And to quote a book that I like: "they will know the truth and the truth will set them free". mdumais@ledevoir.com

## ###ARTICLE\_START### ID:313

While waiting for the definitive opening of the Parisian theater, under construction until 2006, visitors can, drop by drop, attend a multimedia program that begins with "OpenSource 1" To reach the backstage of the Gaîté-Lyrique, you must first take a long passage that opens onto rue Réaumur. The main entrance to the theater, whose facade overlooks the square Emile-Chautemps (in the 3rd arrondissement of Paris), is still condemned despite the "electronic" program - OpenSource 1 - which is due to start on March 21. How else? The interior of the building, closed for fifteen years, after the setbacks of Jean Chalopin's La Planète magique, is both tragically empty and overloaded with various reliefs. The aborted project made the old performance hall disappear in favor of a pocket Luna Park of which only the mechanical guts remain. All around these partly dismantled metal elements, we come across a few survivors of the interrupted adventure on a spiral ramp: plaster and plastic mannequins, a blue dragon hanging from a beam, a headless Mexican, a pseudo-Aztec decor in rags, a smashed bar, fake ruins. "Since September," explains Pierre Bongiovanni, boss of Stream-Tease TV and temporary tenant of the premises, "we have been showing this decor to small groups of 20 people, including the 300-seat room, which is unusable for us. People need to understand what happened here." Only the Napoleon III foyer is intact. It is in this space, but also in the basements and in the old entrance that the public will be invited to attend the launch of OpenSource 1, the first stage of a multimedia program flanked by fourteen electronic installations, which should include three parts. "We are using 2,000 m2 out of 10,000 m2," says Pierre Bongiovanni. "We will welcome the public in groups of 20, for security reasons. Later, we hope, after a minimum of adjustments, to be able to receive 300 people at a time. But there will also be solutions outside the walls for our shows." For the police headquarters, the spectator gauge is in fact a function of the work to be done. To accommodate 1,200 people per evening, the cost of the interventions is estimated at 700,000 euros. Too expensive for the temporary occupation envisaged. The budget for this "prefiguration" operation of a Gaîté-Lyrique dedicated to "electronic arts" was 300,000 euros in 2002. It should be renewed in 2003. For two years, until 2005, the start of the "major" construction site, Pierre Bongiovanni will therefore be able to occupy the remains of this shattered theater. He adds: "I can never thank Bertrand Delanoë, the mayor of Paris, enough for giving me the keys to the Gaîté-Lyrique. If he wants to consult me on the next steps, I will be delighted. SHARING ALL THE ARTS Because Pierre Bongiovanni has no shortage of ideas for using the place." They are well-known, he says. And they are on display on my website - www.scenum.tv -. I have been working on the concept of the digital stage for some time. Multimedia is not intended to be autonomous. In France, electronic arts are too often confined to ghettos. We need to pool under one roof traditional live performance (theatre, opera, dance) with the visual and multimedia arts, cinema and television, all of which are multiplied by computers and linked into networks. To invent a new ritual for the 21st century, we must use cutting-edge technologies rather than be enslaved by them." There is nothing utopian about all this. Pierre Bongiovanni has a fixed base in eastern France: he is supported by the Montbéliard urban community with a budget of 3 million euros. The Franche-Comté multimedia center that he is working to set up by 2005 should be "one step ahead of its European competitors." But if the Parisian municipality still intends to allocate the Gaîté-Lyrique to digital arts and electronic music, the definitive reopening of the old theater is not expected before 2006. After a call for tenders from eight teams of architects, the name of the winner should be known in December 2003. The applicant will have to lead the transformation of the building. At the end of the work, a new call for tenders would be launched to recruit a manager capable of piloting a project artistic. Pierre Bongiovanni could be in the running. Emmanuel de RouxOpenSource 1 , "distributor of beautiful dreams", installation by Lydie Jean-dit-Pannel. 70, rue Réaumur, Paris-3e. Mo Réaumur-Sébastopol or Arts-et-Métiers. March 21, 22, 23, 26, 28, 29 and 30; April 2, 4, 5 and 6. Sessions every hour, from 12 p.m. to 9 p.m., in groups of 20 people. Duration: 1 hour 15 minutes. Reservations required by email (visite@la-gaite-de-paris.info), or on www.la-gaite-de-paris.info. Bring a flashlight.

## ###ARTICLE\_START### ID:314

In Paris, the digital Gaîté-LyriqueHow to launch a place without opening it to the public? In the absence of prefectural authorization, the digital version of the Gaîté-Lyrique is being unveiled as of today in "private" mode. No concerts or evening events, but for this "OpenSource 1", guided tours in small groups, by registration (visite@la-gaite-de-paris.info), every hour and until April 5. Video, sound and multimedia installations are scattered along the route in the late Magic Planet (the amusement park of the future, stuck in the 80s). We'll come back to it.www.la-gaite-de-paris.infoIn Clermont, VidéoformesThe Clermont festival Vidéoformes, at the forefront of video art, less so in its digital forays, closes this Saturday with a big Night of Electronic Arts mixing music and video, performances, VJs, DJs, improvisations and dance. The exhibitions continue until April 6 in four galleries and museums. Not to be missed, the video installation by Iranian Shirin Neshat, The Shadow Under The Web, and, much more mischievous, the videos by Thierry Lagalla.www.videoformes.comIn Lille, Rencontres audiovisuelles300 short films from around the world, conferences, workshops... Lille hosts the 3rd Rencontres audiovisuelles until March 29, starting tonight with a Visionik night at the Aéronef (live video and music creation). Tuesday, multimedia in the spotlight: round tables on copyleft and networked art and winners of the Internet competition (online voting is open). Closing on Friday with a night of animation at the Splendid.www.rencontres-audiovisuelles.org

## ###ARTICLE\_START### ID:315

Metz l'Espace Multimédia: On March 20, invitation to discover e-administration: the services of the municipality online, but also those of the French administration. Espace Multimédia, 2, rue Four-du-Cloître, 57000 Metz. Alsace Ohleyer School of Wissembourg: On March 22, from 2 p.m. to 5 p.m., introduction to electronic music with free software. Jean-Ohleyer School, 1, place Martin-Bucer, 67160 Wissembourg. http://strasbourg.linuxfr.org/libre-fete Meuse The program for the Internet festival in the Meuse department is available at http://www.cg55.frSaint-Mihiel, Montmédy, Bar-le-Duc...: Computer clubs open their doors to introduce the population to the Internet.Villotte-sur-Aire: March 22 and 23, network game.

## ###ARTICLE\_START### ID:316

GrenobleQuai des Clics: From March 17 to 23, the artist Fred Forest is collecting your works on the theme "Why not me on the Net". Drawing, collage, poem, word, all on an A4 sheet to send or bring. The result will be a mosaic of creations put online.Quai des Clics, place Saint-Laurent, 38000 Grenoble. internetenfete @free. frLyonAuberge de jeunesse du Vieux-Lyon: From March 17 to 23, it is organizing initiations around the new Wi-Fi technology.Auberge de jeunesse, 41-45, montée du Chemin-Neuf, 69005 Lyon. www.fuaj.orgSalon-de-ProvencePortail Coucou: On March 22 from noon to midnight, giant videoconference with Senegal, Cameroon and many places in France.Portail Coucou, 160, bd Lamartine, 13 300 Salon-de-Provence. www.portail-coucou.comToulonLa Rode shopping center and library: On March 21 and 22, spend a sleepless night online or try your hand at online gaming all weekend.www.cybertoulon.com.PerpignanBenja.com Party: From March 18 to 21, from 5 p.m. to 8 p.m. and March 22 from 2 p.m. to midnight, take part in the largest online community game created by the French. Introduction to creating web pages to become a player on the Web. Avenue du Général-Leclerc, 66000 Perpignan. Avignon @venir84: From March 17 to 22, from 9 a.m. to 8 p.m., complete Web training to end on a high note with an exchange (discussion forum, videoconference) with Algerian partners. @venir84, 27 bis, rue de la Trillade, 84000 Avignon. www.avenir84.org Marseille Inforoots: On March 21, the association is organizing Internet initiation sessions on the Capucins market and is inviting you to a giant videoconference with the Alliance Nord-Sud association in Cameroon. The day will end with a cyberparty. www.inforoots.org Montpellier Diago Kawenga: Events at the cultural and multimedia space around Linux and free software. On March 21 from 9 p.m., interactive evening "Visual Fantasy" around the collective creation of landscapes of a virtual world hosted by the multimedia artist Laurent Rodriguez. Espace Kawenga, 34000 Montpellier. www.diagokawenga.com/rencontres /internet3.htm Toulouse Sicoval: From March 17, children from the 36 municipalities of the agglomeration community will participate in an e-book writing competition. http://www.lecteur duval. org

## ###ARTICLE\_START### ID:317

dispatches MUSIC: The musicians' strike that shut down Broadway music halls in New York for four days ended Tuesday, March 11. An agreement was reached after an intervention by the city's mayor, Michael Bloomberg. The strike began Friday, March 7, after union negotiations between musicians and producers failed over the minimum number of musicians in the pit. Producers wanted to reduce it from 26 to 14. The compromise is for a minimum of 18 or 19 musicians for the largest theaters. The strike cost the city $7.2 million, according to New York tourism officials. - (AFP.) The reopening of the Gaîté Lyrique in Paris, closed for fifteen years, scheduled for March 21, will be limited by particularly strict security constraints. According to Pierre Bongiovanni, director of the Pierre-Schaeffer International Video Creation Centre in Hérimoncourt (Doubs), to whom the Paris City Hall has entrusted the management of the venue for two years, it would take 700,000 euros to bring the venue up to the standards required by the Paris Prefecture. "OpenSource", an event around digital cultures conceived for the opening, will therefore welcome the public by appointment, in groups of 50 people, and will present a selection of artistic installations. Information: www.la-gaité-de-paris/info. CINEMA: 200 films were approved by the CNC in 2002, compared to 204 the previous year, 163 French-initiated films, compared to 172. In its annual review of cinema production, the CNC notes that the sums invested in French films (860 million euros) are down by 44.4 million euros (25 million for French-initiated films). This decline is mainly due to the withdrawal of Canal+ (-30 million euros compared to 2001), private channels and French producers. The number of films with budgets between 5 and 7 million euros has doubled, a sign of a threshold effect linked to the diversity clause imposed on Canal+ (45% of the channel's investments must be for budgets below 5.4 million).

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## ###ARTICLE\_START### ID:319

IF THE USE OF the Internet now seems to be part of the habits of English-speaking and Spanish-speaking feminist groups in developing countries, the French-speaking activist web is still in its infancy. The number of active sites is particularly limited in the cyberspace of French-speaking Africa. "For the African continent, there are about 20-25 sites, notes Nicole Nepton, who has listed feminist sites for the Cybersolidaires network. We felt, in Quebec and Canada, that it only developed in 1999. So in French, in the South, it is still marginal. But in English and Spanish, there are extraordinary networks." However, as early as 1999, African women firmly believed in the power of new technologies, as evidenced by this excerpt from the site Femafrique.org, the largest French-speaking feminist network in the South: "Radio, television, Internet: Information and Communication Technologies (ICTs) are causing significant changes in our communities. They affect the way we see and understand the world. They change our working methods and the way we communicate. They influence our ability to obtain and share information. And they are a real source of power." The lack of resources is of course the basis for the slow development of the African web. Femafrique has nevertheless managed to pull through and become an essential meeting place for women in the South. Based in Dakar, the network has existed since July 1999. In addition to producing an electronic newsletter, La toile d'elles, it offers training workshops. The site's webmaster, Marie-Hélène Mottin-Sylla, firmly believes in the power of the Web. In 2000, she participated in a study conducted jointly by APC, Femafrique and FEMNET, three African organizations. Forty-two women from 16 countries in East, West, North and South Africa volunteered for this project, in addition to the participants in the electronic list (about 130). The result? An online book that testifies to women's faith in the power of technological tools, despite the many questions raised ("Is the information revolution really a priority for the continent, when we must respond to much more immediate emergencies in terms of poverty and malnutrition?", we can read, for example). This faith has continued to be renewed since then. Nicole Nepton had the opportunity to speak with Ms. Mottin-Sylla on several occasions. "She told me that in Senegal, women have been trying to change the law for joint parentage for 30 years. Currently, women have no rights over their children. Marie-Hélène has developed online projects to disseminate the subject." While the laws have not yet been changed, the dissemination of this information has had a considerable impact on the population and the debate is far from over. Sharing tools Cybersolidaires is currently working on setting up the French-speaking Women's Web, in collaboration with Femafriques. "Femmes de la francophonie, the first project piloted by Cybersolidaires, aims to create a space for sharing information, exchanging ideas and networking between women around the world who speak French, announces Ms. Nepton in the pages of Cybersolidaires. The first phase will be carried out in partnership with ENDA SYNFEV, which runs the Femafrique network. With the Intervention Council for Women's Access to Work and the CMAQ, we are also in the process of creating the virtual networking center Femmes au travail! We also have other projects in the pipeline." Since not everyone is an HTML pro, Cybersolidaires is banking heavily on the development of free software to offer French-speaking women around the world a quality network. "With free software, which allows you to copy and paste content without knowing HTML, it is much easier to develop," says Ms. Nepton. Cybersolidaires also devotes a section of its site to "painless" dissemination on the Internet, in which it presents easy-to-use tools that allow women's groups to extend their reach without having to take computer training. "African women use Painless Dissemination on the Internet," says Ms. Nepton. "We share these tools." One of the most popular tools for Internet users in both the North and the South is the discussion list. "Tools like discussion lists remain relevant and powerful," says Sharon Hackett, a development officer specializing in Internet projects at the Centre de documentation sur l'éducation des adultes et la condition féminine (CDEACF). "Now, there are voices coming from the South that are getting stronger and stronger." In addition to benefiting from the impact of their dissemination on a global scale, these voices also need to find an echo in their own communities. The pooling of ideas and struggles may allow different groups to help each other, but the fact remains that many of the struggles waged by African women are miles away from the reality of Western women. "There is a big gap between the field and the world of research," wrote Awatef Ketiti, a Tunisian, in Flamme's online discussion on African women and new technologies. "Emerging from the hubbub of projects, seminars, and usual speeches, we must draw attention to the vital importance of researching our reality as African women, our own definition and our context of communication. The relationship of African women with technology and communication is different from that of women in the West, because they are women from developing countries and in the African context. We need to do our research on how we use ICTs." Web resources: Femafrique: www.famafrique.org Cybersolidaires: www.cybersolidaires.org Alternative Media Center of Quebec: www.cmaq.net Results of the joint research by APC-Femmes-Afrique and FEMNET: www.enda.sn/synfev/apcfemafr/beneficesnets/intro.html

## ###ARTICLE\_START### ID:320

How can you not miss the boat on computers and the Internet when you don't have access to a computer or training? Digital Public Spaces (EPN) are there to prevent the digital divide from getting worse. Examples in Paris. On a beautiful Saturday afternoon, five men and two women studiously tap away with two fingers on their computer keyboards, following the instructions of the young trainer who circulates among them. Although their PCs face the Bassin de la Villette, bathed in sunlight, they are completely absorbed in their work: creating an email address on the La Poste website. These "complete beginners" have found training with Quai Web, an EPN open on Saturdays and Sundays in premises that otherwise house a structure of the City of Paris (the Espace pour le Commerce et l'Artisanat in the 19th arrondissement). The seven powerful computers and their high-speed connection are available to the neighborhood's shopkeepers and craftsmen during the week, but the Réseau 2000 association requisitions them on weekends to introduce beginners to computers. In three sessions of 3 hours maximum (beyond that, it's difficult to absorb all this new information), apprentices learn the basics of computers, email and Internet browsing. "The digital divide is twofold. There are young people who think they know everything because they're chatting, but who don't know how to use the Internet to develop their knowledge. And then there are older people who are afraid of technology. When you've never touched a mouse, it's very disconcerting," explains Emmanuel Saunier, one of the founders of Réseau 2000 who grew up in the neighborhood. This young veteran of the world of entertainment, the associative sector and the private sector is firmly convinced that computers are wonderful, but that a major learning effort is necessary for everyone to benefit from them. Mission that his association strives to fulfill: since its opening in July 2002, Quai Web has already provided more than 600 training courses and not only to complete beginners. On Sundays, Quai Web also welcomes those who want to create a website, explore free software or come and improve their skills in "supervised practice". All for free. Night has fallen on the Bassin de la Villette and the course ends almost with regret. Gabriel explains that he has a computer at home, but that his children do not have the patience to explain the basics to him. With a few notions in his pocket, he feels ready to get started. Marielle, one of the Quai Web facilitators, confirms that some participants have Internet at work but do not dare admit that they do not know how to use it! This is precisely why Merzaka, in his forties, has come. "If you don't know Internet, you are out of step. Here, you can ask the trainer lots of questions and he answers with great patience," she explains. These computer discovery experiences are repeated in multiple places open to all, and for the most part free, throughout the capital. According to a study by the City of Paris, there are more than 100 associative places that offer computer training. Not all of them are officially "EPN", a label originally created as part of the Interministerial Mission for Public Access to Microcomputing, the Internet and Multimedia (Mapi) under the previous government. This label guarantees certain standards in terms of quality of equipment and presence of trainers. Acronyms and labels are multiplying. For a few weeks now, the City of Paris has been inaugurating with great fanfare Digital Public Spaces (EPN) bearing a new acronym: Parvi for "Paris Digital City". In most cases, this involves providing new resources in terms of equipment and personnel to places that already existed, but whose common point is to focus on training rather than simple self-service access. Thus, La Clairière, a social center in the 2nd arrondissement, already had a few computers for its literacy, academic support and job search workshops. Freshly repainted in the colors of Parvi and equipped with new computers, the EPN La Clairière officially opened its doors to the public on March 1 for classes for complete beginners on Saturday and Wednesday evenings. From the first day, a group of apprentices, mostly women, were there. Here, volunteers provide the training. "For March, all the Saturday slots were already full before the opening," assures the manager, Frédéric Brachet, satisfied with these promising beginnings. Another example of equipment and premises judiciously used, the 20 workshops of "Paris for young people". "During the week, we welcome 8,000 CM1 and CM2 students who come to learn about computers with their teachers and our instructors," explains Antoine Gharbi, director of Passeport pour l'informatique as part of "Paris pour les jeunes". "On Wednesdays, we offer year-round courses for 8-18 year-olds. We also have courses for young people during the short school holidays. But we also welcome 1,700 adults every year." These are computers that are not idle! Goutte d'Ordinateur is another active center. Inaugurated in January 2002, this EPN mainly welcomes local associations that work in the areas of literacy, academic support, integration or learning French. Individuals are also welcome for a modest fee (10 euros for annual membership including training and two hours of free access per week). After 8 months of activity, Marielle, the facilitator of Quai Web, continues to be pleasantly surprised: "There is a huge desire to learn. They all want to sign up for another course." To tame the computer, you just have to take the first step. - Quai Web, 47, quai de Seine, 19th. Tel.: 01.53.35.82.15. - La Clairière, 60, rue Greneta, 2nd. Tel.: 01.42.36.82.46. - Paris for young people: www.paris-les-jeunes.com - Goutte d'Ordinateur, 7, rue Léon, 18th. Tel.: 01.42.51.03.61. - List of EPN Parvi: 08.2000.75.75 (Paris Infos Mairie), 0.13 per minute.

## ###ARTICLE\_START### ID:321

After the personal computer, Microsoft hopes to establish itself in the new market of operating systems for smart mobile phones. These devices will represent "39% of the terminal market in the world", says Juha Christensen, vice-president of mobile devices for the firm founded by Bill Gates. Its main adversary, the Symbian consortium, has convinced Samsung, the world's third largest manufacturer of mobile phones, to take 5% of its capital. The South Korean industrialist finds itself a shareholder alongside the British Psion (25.3%), the Finnish Nokia (19.15%), the American Motorola (19.15%), the Swedish Ericsson (17.5%), the Sony-Ericsson duo (1.5%), the German Siemens (4.8%) and the Japanese Panasonic (7.6%), a subsidiary of Matsushita. These shareholders together hold 78% of the world market for terminals. However, this alliance is not guaranteed to win. Motorola and Samsung say they are "agnostic". Symbian's ally, Samsung still opts for Microsoft's program, Windows CE. The German Siemens has also chosen the product of Bill Gates' firm for an order from the American operator ATT Wireless. And the German T-Mobile (Deutsche Telekom) and the French Orange (France Télécom) have selected the mobile designed by Microsoft and produced by the Taiwanese HTC. Finally, two other operating systems are in the race: PalmOs developed by PalmSource, and a version of the free software Linux, chosen by Motorola. Symbian's president, David Levin, explains this battle between the world's largest terminal manufacturers. LE FIGARO ECONOMY. What is the point of convincing the South Korean Samsung to invest in Symbian? David LEVIN. This is an important victory. The signing of the agreement with Samsung on 17 February, which took 5% of our capital for 17 million pounds (25.3 million euros), reminded me of signing a treaty. Last year, we had already attracted the British Sendo, a former partner of Microsoft. Which mobile phone operating system will prevail? Not all of them will survive. Creating an operating system is a very complex project. The goal is to develop a mobile phone that will allow you to speak with your eyes as well as hear with your ears! Manufacturers will have to choose between the different operating systems. For the moment, the most widespread program in the world is that of Nokia, with its NOS (Nokia Operating System). And each telephone manufacturer already has its own software or several programs like Motorola. But two companies should survive for the new operating systems, Symbian, which brings together manufacturers delivering 80% of the terminals in the world, and Microsoft which is big enough to remain in this market. Symbian, which is expected to announce heavy losses for last year in March after losing £40 million in 2001, is it in trouble? No, some of our competitors say we have cash flow problems, but that is not the case. We have just raised fresh capital with the entry of Samsung. We already have 2 million mobile phones worldwide using our operating system. Our shareholders will therefore not let us down. Our cash flow is still sufficient to allow us to survive for at least twelve months, without raising additional funds. Our business allows us to generate cash. The revenues come in, with a fixed fee of 5 dollars per terminal. The fee is the same for all. This is a difference with our main competitor who does not communicate the amount of its fee and has a few tens of thousands of terminals on the market. Finally, the operators, who choose the Microsoft program, must also adopt Microsoft's services.

## ###ARTICLE\_START### ID:322

A pink chenille sweater printed in poster format, a totem made of aluminum foil, a polystyrene silhouette, a photocopied enucleated Bin Laden, three peanuts stuck on paper, a pile of squeezed oranges, a video loop of the logotyped credits of The Young and the Restless... the walls of the basement of the éof gallery are covered, as the evening progresses, with a motley mix, a jumble whose only common point is the labeling. The paper indicates "the name of the work and possibly what it is", "if applicable, a description of the modified work and the name of the author", the "copyright (name of the author)" and the license "Copyleft: this work is free, you can redistribute it and/or modify it according to the terms of the Free Art License" (1). Antoine Moreau's Copyleft Session is neither an exhibition under construction nor a schoolboy artist's delirium. On the contrary, the atmosphere is most studious, participation absolutely required ("without free work, no free entry"). Pencils, stickers, glue and scissors, paintbrushes, scanners and printers are available to the public. Absorbed by their task, people seem feverish, busy sticking, collecting, cutting, writing, composing alone or in duo, a copylefted work, which will then be exhibited in the basement. Antoine Moreau, net-artist versed in the battle of free software, has found there the means to experiment in vivo the "free" culture. "We cannot copyleft copyright, what is free remains free", warns the invitation. Unlike the locked software held by the giants of IT, Microsoft in the lead, free is an open program, whose source codes are accessible and transformable at will. The practice first conquered the scientific community, Linux users and supporters of networking, before overflowing the IT framework. The battle has become legal, a way of following the evolution of uses (sampling, copy-paste, borrowing), intellectual and artistic, since it is a question of imagining new practices, where the author is not denied (he authorizes copying, exchange and transformation). Free art, as imagined by Antoine Moreau, is only experimental, but makes one furiously want to participate.... (1) Available on the Copyleft attitude site: www.artlibre.org

## ###ARTICLE\_START### ID:323

Microsoft does not sell just any product: computer systems have implications that are much broader than socks. In addition to the company's attitude toward its competitors, the threats it poses to privacy, freedom of expression, and the independence of states are at the heart of the criticisms it receives. Such is the Palladium project: the aim is to provide a secure computer environment by 2005, where viruses and pirates would be neutralized. The problem is that Microsoft is talking about numbered chips to identify computers and "signed" software to verify whether a program has the right to run on the machine. In other words, computers would be under control, via the Internet. "Politicians will have to examine very closely the implications of Palladium on intellectual property, privacy, and other areas," says economist Hal Varian (University of Berkeley). States are also increasingly looking at Microsoft's latest discoveries. We saw this at the end of January with the changes imposed by the European Commission on Passport, a sort of electronic identity card designed to facilitate e-commerce: the prospect of mega-databases controlled by Microsoft seemed unthinkable. The same goes for national security: for several years, a growing number of governments have been worried about the opacity of Windows, which could hide dangerous security flaws or even spyware. Microsoft recently agreed to open its source codes (manufacturing secrets) to governments that wanted it. This is also a way for the company to counter the growing success of free software, whose source codes are available and modifiable at will in government departments. As such, with Microsoft, we quickly move from social issues to economic competition issues.

## ###ARTICLE\_START### ID:324

Ottawa - Software maker Corel posted a wider fourth-quarter loss yesterday but said its future is bright and it should be able to return to profitability in 2003. The Canadian company, best known for its WordPerfect and CorelDraw software, has cut its workforce by 22 per cent as it grapples with weak consumer demand and continued development of an aging product line. Corel, which is competing for market share with technology leaders such as Microsoft and Adobe, will launch about a dozen new products or updates in 2003 to try to boost sales. "While it is premature to provide guidance on the level of revenue growth we expect, we expect that successful execution of our strategy will result in positive earnings before interest, taxes, depreciation and amortization of goodwill for fiscal 2003," Chief Executive Officer Derek Burney said on a conference call. "Our top priority is to ensure our revenues are growing and the business is profitable, regardless of the current economic climate." Corel reported a net loss of $27.8 million, or 30 cents per share, for the quarter ended November, compared with a loss of $10.7 million, or 14 cents per share, in the same period a year earlier. An analyst who provided his forecast to research firm Thomson First Call had expected a loss of 12 cents per share. The latest quarter's net loss included a $5.9 million severance charge and a $17.2 million charge related to the write-off of intangible technology assets and amortization of goodwill. Corel's most recent layoffs, announced in November, have reduced its workforce to 734, down from 929 at the end of the third quarter. The layoffs are expected to generate annual savings of $12 million, the company estimated. Quarterly sales were $33.5 million, compared with $31.6 million in the same period in 2001. Those sales were slightly below the company's forecast of between $34 million and $38 million issued last September. "The company will use revenues from our established product lines, including WordPerfect and CorelDraw, to fund our investments in higher-growth markets," Derek Burney said of Corel's 2003 plans. For fiscal 2002, the company reported a net loss of $96.4 million, or $1.09 per share, compared with a loss of $7.3 million, or 17 cents per share, in 2001. Revenue fell to $126.7 million, from $134.3 million a year earlier. Corel's stock, which traded at $64.65 Cdn in 2000 when Linux was at its peak, was down 2 cents to $1.23 yesterday on the Toronto Stock Exchange and down 1 cent to 80 cents on the NASDAQ. Linux is an open-source operating system that competes with Microsoft's popular Windows operating system. Corel sold most of its Linux business in 2001 in a $2 million deal with Xandros Corp.

## ###ARTICLE\_START### ID:325

As usual, the secret was kept until the end, before the American Mac grand mass in mid-January. There were many announcements, but no dramatic turn of events shook the world of computing or the small world of Apple. Steve Jobs, the boss of Apple, focused his speech on his brand new in-house browser (Safari), but also on a suite of multimedia creation software (iLife), a presentation software (Keynote). Also in the spotlight, two new laptops... Apple now offers its customers its own Internet browser, "Safari", presented as being the fastest and easiest to use Web browser ever created for the Mac. "This browser is three times faster than Internet Explorer on Mac OS", assured the CEO of Apple. Google's search capabilities have been integrated directly into the toolbar and the browser also offers new ways to present search results, favorites, etc. It is also possible to automatically block "pop-up" ads, i.e. advertising windows that open without being requested. Safari was developed in OpenSource and its code has therefore been published on the Apple website. For the moment, this new browser is only in its beta version, available free online. Another strategic axis: the "digital hub", which can be considered as using digital technology in everyday applications. Apple's image and sound processing software has been distributed in several million copies: iTunes at 18 million copies, iPhoto at 6 million, iMovie at 12 million and 680,000 copies for iDVD2... New versions have been announced: iPhoto2, simplified photo improvement in one click, new editing tool and automatic archiving on CD and DVD; iMovie3, with chapter creation for DVDs, a new interface, new list management, the possibility of integrating photos from iPhoto into films, and above all many special sound or visual effects; iDVD3, which offers 24 new functions with easy menu creation, quasi-professional effects while remaining very simple to use. All these software programs can now easily communicate with each other in order to include music in its slideshows or images in the background of clips... iTunes has already had a new version very recently, iTunes3. Naturally, these software programs (music, photo, video and DVD) were brought together in a suite called iLife: "For a digital lifestyle, iLife does what Microsoft Office did for office productivity. All the applications you need are in one box and they work perfectly together," explained Steve Jobs. This software suite will be delivered as standard in new Macs from the end of January but can also be purchased for 49 . Most of the new versions of the software can also be downloaded for free from the Apple website. Still on the software front, Apple launched a frontal attack on Microsoft by presenting Keynote, a direct competitor to PowerPoint: a presentation software that is very easy to use but with a very good visual rendering. Graphs and tables can be created in the blink of an eye and PowerPoint, QuickTime and PDF files can be imported and exported. Software is sold for 99 Two new laptops On the hardware side, Steve Jobs presented two new laptops: one with a very large screen, the other in a mini version... Apple will begin marketing in February, at a price of $3,299, a PowerBook G4 with a 17-inch screen, the largest ever installed on a laptop. All in a very light case measuring only 2.6 cm thick and weighing just over 3 kg. The device, which will be able to connect wirelessly to a cell phone and various peripherals thanks to Bluetooth technology, as well as integrate into a wireless network via Airport Extreme (up to 54 Mbps), will be equipped with a 1 gigahertz G4 processor and equipped with a light keyboard and a screen whose brightness automatically adapts to the ambient lighting. A mini-Titanium also makes its appearance: very compact (it is the smallest ever marketed by Apple), while remaining powerful, it is equipped with a 12-inch screen, a PowerPC G4 processor at 867 MHz, an ultra-fast NVIDIA graphics card, a combined reader/writer... Its autonomy is 5 hours and its price is 1,899 excluding tax.

## ###ARTICLE\_START### ID:326

Having emerged victorious from a trial that threatened to dismantle it, Bill Gates' firm is preparing a revolution that will relegate its previous attempts at hegemony to the rank of venial sins. The new Palladium technology, which Microsoft has just renamed "Next-generation secure computing base", is capable of causing one of the greatest upheavals in the history of computing (Le Monde, January 17). Scheduled to be deployed around 2005, it will involve seven years of research and intensive collaboration with all the industry's manufacturers. The primary objective: to secure electronic communications and make possible tight control of content subject to copyright. A control that will allow content producers to invent all sorts of billing methods: subscribing to a record company's catalogue for a monthly flat rate payment, paying for software usage, etc. The stated intentions are economic. But the deployment of such a system involves societal choices and raises questions of national sovereignty. In the near future, computers will be equipped with an additional chip that will contain a unique identifier. Coupled with software authorizing the execution of programs digitally signed according to Microsoft's criteria, this identifier could be used to authorize - or deny - access to a particular file. Based on information circulating in the scientific community, a researcher who is not suspected of anti-Microsoft views explains that such a device "comes down to submitting all commands placed on a machine to an external authorization, issued or denied automatically by a server". Access to a document saved on a hard disk could thus be subject to the approval of another machine, perhaps located in a foreign country. Before deciding, the control computer will check the conformity of the software, hardware and access rights to a file as soon as it is protected by copyright or by confidentiality certificates. The control, warns a researcher, could extend to locally created documents, which would only become readable by certain programs and not by their competitors. Enough to permanently capture users tempted by change. Microsoft's most virulent detractors see in this strategy the birth of an avatar of George Orwell's "Ministry of Truth" (1984). There is, without doubt, some exaggeration here: the system should not collect directly nominative data. The fact remains that the potential of the device opens the door to abuses, especially in these times of "anti-terrorism". To close any discussion, Microsoft specifies that the versions of Windows in which Palladium will be integrated will give users the choice of using or not this battery of functionalities. Certainly. But all producers of "intangible goods" will rush into the breach. As soon as the device is deployed, new file formats will appear and will only be accessible to those who have chosen Palladium. After this IT Yalta, a choice will have to be made. Adopt a protective and restrictive system, which opens all doors, or remain in a classic environment whose territory will gradually shrink like shagreen leather. In short, these are two cyberspaces that could eventually coexist. One, controlled, in which viruses will no longer be able to run and music piracy will be impossible; in the other, users, at the cost of certain risks, will remain the sole masters of their machine. SOFTWARE DEACTIVATIONOf course, Microsoft is betting on massive, even passive, support. But nothing is less certain. Since the personal computer entered homes, a "culture" of the computer thing has developed. A "culture" that conveys, among other things, a certain distrust of the capabilities of filing and surveillance. And this distrust could be more pervasive than Microsoft's managers think. However, according to a British researcher asked in the fall of 2002 to examine the Palladium project, the leaders of the American computer giant are divided. "In Redmond, entire departments of the company are opposed to the deployment of Palladium and are predicting disaster," he confides. The general public will not be the only ones to convince. Governments are among Microsoft's major customers. And the debate on Palladium is beginning to emerge as states, put off by the new software pricing policy and the lack of transparency of the latter, are tempted to adopt Linux, a free and open operating system, developed by volunteer computer scientists and researchers. The German and British governments, in particular, have recently installed Linux on some of their servers, thus turning away from Microsoft's flagship product. This movement is not new. In France, Jean-Yves Le Déaut, MP (PS) for Meurthe-et-Moselle, had thus tabled a bill in May 2000 aimed at forcing all public administrations to use free and open software. The text had been deemed inapplicable. The temptation to bypass Windows is therefore very much there. And while Palladium technology promises to protect governments against malicious programs and untimely intrusions, it could take away some of their sovereignty over their information systems. A researcher explains that a government using Palladium could be vulnerable to having its software deactivated in the event of a dispute with its suppliers. In the specific case of states, and on this precise point, technical amendments to Palladium are likely to be expected. But it is, in part, in light of the future dilemma that governments will have to decide - "yes" or "no" to Palladium - that the launch of the Government Security Program by the Redmond giant should be read. Launched on January 15, this initiative aims in particular to make Windows manufacturing secrets more accessible to certain states. Other questions remain. The deployment of Palladium could thus contravene national legislation on the processing of personal data: the identifier of a machine could in fact be considered as indirectly nominative data, because it allows the name of the owner to be traced back via a simple purchase invoice. Will the supervisory authorities responsible for ensuring the compliance of software and digital content used by Internet users be subject to the laws in force in each country? The question is all the more open because it has not been asked. Stéphane Foucart

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THANKS TO radio waves, you can now surf the Internet at high speed without wires in a few public places in Montreal, whether in a coffee shop, at the Central Station, at Dorval Airport or maybe even in your neighbourhood. Your computer must be equipped with a standard 802.11b (Wi-Fi) wireless access card, available at electronics retailers. In most cases, you must be within a fairly close radius of the wireless access point, between 50 and 200 metres. The signal can be amplified with an antenna and thus reach a radius of 20 kilometres. In the United States, Starbucks coffee shops offer their customers the possibility of going on the Internet without wires. Three weeks ago, a Second Cup coffee shop on Saint-Denis Street became the first Montreal coffee shop to offer this type of service. "It's still in its infancy," admits Abde Addia, owner of the Second Cup café. "We've installed the network. It's not known yet. We're working little by little to do a good job." To use the service, however, you have to open an account with the company Ekkowireless. The company plans to offer wireless Internet in cafés located near universities, where students with laptops abound. For its part, Bell launched high-speed wireless Internet access zones in several public places in Canada in December. This is a pilot test. The company has transformed public telephones into access points. In Montreal, you can use the service for free until March 31 at the Central Station (Panorama Via Rail lounge) and at Dorval Airport (Air Canada Maple Leaf Lounge). In major cities such as London, Seattle, Boston and San Francisco, free community wireless Internet networks are starting to be organized. "I believe these networks have a future and these cities are good models," says Sylvain Carle, vice-president of the technology division of Messagia and author of the blog Afroginthevalley.com. It is certainly possible for Montreal, the challenge is to find volunteers who will do it for fun." Mr. Carle plans to set up an experimental and non-commercial access point. Freedom, sharing, free In Montreal, the phenomenon is emerging. Using a 15-metre-high amateur radio antenna, Nicolas Neveur, a computer technician, shares his high-speed Internet connection. Amateur radio is practiced on the same frequencies as wireless networks, namely 915 MHz, 2.4 GHz and 5 GHz. Mr. Neveur's immediate neighbours can go on the Internet for free - and wirelessly - thanks to him, if nothing interferes with the transfer of data. Trees, houses or bad weather can block or reduce the quality of the signal. Other access points like the one offered by Mr. Neveur are currently under development in Montreal or are already in operation, without being public. "My philosophy is similar to that of open source software, the desire for free, for sharing for all," Mr. Neveur writes on his personal website. (...) I accept donations. I want to remain autonomous, free and independent. I want to propagate the notions of sharing and free. And of course, promote amateur radio." To share high-speed Internet over the airwaves, you must first subscribe to a provider. At Bell, this type of practice is not viewed favorably. "This is not a legitimate use of an account," says France Poulin, a spokesperson for Bell. Some Internet access providers authorize the sharing of a connection over the airwaves. "We believe that shared wireless access networks are consistent with our values of disseminating knowledge, providing access to information and supporting the community, as long as such use does not negatively impact services to other consumers, does not involve illegal activity and does not violate any aspect of our terms of service," explains the American provider Speakeasy on its website. For more information: http://quebec.sansfil.org/ www.nodedb.com/canada/qc/?lang=fr www3.sympatico.ca/neveurn/liens.htm www.ekkowireless.com/

## ###ARTICLE\_START### ID:328

"Alternative" information is felt on a boulevard. It proliferates everywhere in Porto Alegre. In the form of press agencies, websites, radio stations, often financed by private foundations (Ford, Mott...). The information war, the battle for the "democratization" of the media are also among the key themes of the summit. Throughout seminars and conferences, the "commercial" press is mocked: accused of being under the thumb of "conglomerates". "Its hyperconcentration is a threat to the plurality of the world, summarizes one of the co-organizers of the summit. It does not provide enough objective, serious, independent information." "Rigor." The phenomenon, not new, is exploding. The radical network IndyMedia, launched in Seattle, has prospered on the Net in more than 60 countries. But its operation, based on open source (editorial regulation is done by readers and contributors), has its limits. "Not journalistic enough, when rigor is needed to develop a different kind of journalism," says Antonio Martins of Ciranda. Launched at the first forum, Ciranda is booming. The site brings together a hundred editors and provides reports and analyses in six languages. "Far from the folklore relayed by the traditional press," notes a volunteer. "We focus on the content of the debates." The network operates according to the rules of copyleft as opposed to copyright. Each editor who adheres to the Ciranda principle leaves his articles royalty-free and can reproduce all the others. More traditional, but very effective, Attac-Info is breaking records. "Five newsletters are sent out every evening to 95,000 subscribers, in five languages," emphasizes Laurent Jésover, webmaster. And 50 editors from eight countries, translated by 1,200 remote volunteers on the Internet, feed the site." The dynamic is the same everywhere. In Porto Alegre, Carta Maïor, an alternative multimedia agency created three years ago by a Brazilian lawyer, operates with more than "25 journalists, three times more than usual," notes an editor. Community radio stations are also thriving. "Only 8% of people in the world have access to the Internet," recalls one of its players. Networking. To satisfy this need for information, tools are also being reactivated. Like Inter Press Service News Agency (IPS), based in Mexico since the 1960s, which now supplies five regional desks. IPS publishes a daily newspaper during the WSF, Terre vivante, and has even sent a journalist to Davos. "40,000 daily newspapers are flying off the shelves," says Miren Guttierez, editor-in-chief. "And our site is saturated." The networking continues. The Porto Alegre 2003 site intends to continue capitalizing on "alternatives" after the summit. And to keep an eye on the other press, an International Media Observatory will be inaugurated today. Objective: to denounce “the commercialization of information” and attempt to prove that “another press is possible.”

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Highly contested, the new technology from Bill Gates' firm should be partly unveiled in the first half of the year. Designed to combat the proliferation of computer viruses and to protect sensitive data, it nevertheless worries many researchers. Microsoft should make public, towards the end of the first quarter, the first technical data of a highly controversial project to "secure" computing. If it sees the light of day, Palladium, the code name for this technology, will revolutionize the relationship between users and their computers. It will indeed be, warns Claude Kirchner, research director at the National Institute for Research in Computer Science and Automation (Inria), a "revolution." The details of this announced upheaval remain confidential, but its broad directions are known. During several conferences held across the Atlantic in recent months, Palladium was in fact presented to the community of computer security professionals. Since then, it has been variously and passionately commented on. "Palladium is not yet a product as such," explains Bernard Ourghanlian, technical director of Microsoft France. "It corresponds to software and hardware modification projects that should occur in the near future, around the end of 2004, beginning of 2005." These modifications will consist of adding, on each computer, a chip containing digital encryption keys and data allowing the machine to be identified. A software module - integrated into future versions of Windows - will allow, for its part, the creation of a "trust zone" in the computer's memory. The files stored there will only be able to be opened by programs whose digital signature will be compliant with Palladium. "Typically," illustrates Mr. Ourghanlian, "antivirus software operating in the Palladium zone will not be able to be destroyed by viruses since, without the right certificates, they will not be able to penetrate this sanctuary." In the same way, documents stored in this secure mode could not be destroyed or altered by malicious programs. And personal and confidential information (bank details, medical information, etc.) stored within Palladium would also be more difficult to "hack" since it would only be accessible to certified and "trustworthy" software, according to Microsoft's term. END OF USER CONTROLHowever, the potential of such technical provisions is worrying. "We could, for example, ensure that, on a given machine, access to certain information is authorized," explains Claude Kirchner. This amounts to the fact that in secure mode, each time a command is placed on the computer, it is submitted to an authorization server located outside." Ultimately, in the context of Palladium, the user would no longer have total control over the data stored on his own hard drive. The first consumer application to take advantage of this functionality will be digital rights management. For example, new types of music files could only be played if a third-party server had previously ensured that they were compliant and that the user had paid the usage fees. "There are also implications for national sovereignty," Kirchner explains. "Such a system could mean that Windows computers in a country no longer receive a token from a third-party server authorizing them to restart." Moreover, the researcher continues, "the question of who will control the controllers has not been asked." At Microsoft, these interpretations are described as "phantasmagoria" due to the "paranoia" surrounding the project. Furthermore, Mr. Ourghanlian points out, "the user will remain free, if he wishes, to deactivate the Palladium functions." Aware of its deplorable reputation and the difficulties it will have in getting such a device accepted, Bill Gates' company has decided to seek advice from researchers outside its laboratories, in the context of seminars or by bringing in academics as consultants on the project. "Contacts are beginning to be established with the major researchers in encryption and computer security," Mr. Ourghanlian explains. "The purpose of our interaction with this entire community is to exchange with them as openly as possible so that we can improve if a certain number of things, for reasons relating to privacy, for example, are not going well." In the fall of 2002, Ross Anderson, a specialist in information systems security and research director at the computer science laboratory at the University of Cambridge (United Kingdom), was contacted by Microsoft. After examining the file, he renounced any form of collaboration. "I realized that their motivations were not so much security as being able to make people captive to certain products," he says. According to him, Palladium is, moreover, very controversial within Microsoft itself, where certain departments are apparently opposed to the project, announcing a "disaster" to come. The scientific community is also divided. David Farber, a researcher at the University of Pennsylvania who was asked by Microsoft for this project but is known for his independence of mind - he testified against Microsoft during the antitrust trial - believes, for his part, that the concerns raised by Palladium are mainly due to the fact that the Redmond firm has too bad a reputation. In any case, he judges, "this system will not allow Microsoft to increase its control of platforms." In other words, the motivations of Bill Gates' firm are not, according to Mr. Farber, to consolidate its dominant position. But, here again, opinions differ. Some experts believe that Microsoft will be tempted to impose certain conditions for the compliance of competing software with Palladium. If this technology becomes a standard widely adopted by digital content publishers, Microsoft would thus end the threat of Linux and free software. The Redmond firm denies this, assuring that Palladium technology will be "as open as possible" Stéphane Foucart A nomination for the "Big Brother Awards" In an ironic manner and as part of the "Big Brother Awards", the non-governmental organization Privacy International will award in Paris, on Monday, January 20, a series of prizes stigmatizing the projects, technologies or people who have most seriously attacked the privacy of citizens. The Palladium system is this year selected in the "technologies, products and systems" category. The jury will be chaired by the sociologist Loïc Wacquant, disciple of Pierre Bourdieu and professor at the University of Berkeley (California). In the United States, one of the most famous associations fighting for respect for freedoms in cyberspace, the Electronic Frontier Foundation (EFF), composed mainly of academics and researchers, still reserves its position on Palladium. Towards "trustworthy" hardware Most of the computer manufacturers (including Intel, IBM, HP, Compaq, etc.) have been grouped together since 1999 within the TCPA consortium (Trusted Computing Platform Alliance). The objectives of this grouping are the implementation of new hardware standards guaranteeing "trustworthy" computing, "respecting the confidentiality of electronic communications" while being able to "promote electronic commerce". The initiative follows Intel's attempt in 1998 to tattoo its Pentium III processors to authenticate electronic transactions. Faced with the outcry, the world leader in microprocessors had to give up. Officially, TCPA and Palladium are distinct and "without explicit link", as Microsoft France explains. "But it is very likely that the TCPA specifications will evolve so that Palladium can be hosted there."

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Once the reflectors are turned off and the cameras are dispersed, what remains of Steve Jobs' beautiful speech at the recent Mac World? A photo, a nice photo, and above all a strong trend towards respecting standards and adopting open standards. Oh, but what an extraordinary salesman this Steve Jobs is! The boss of the Holy Apple gave us a real treat during his speech at MacWorld last week. I swear to you, immediately after these two hours where he kept us in suspense, like the last romantic lover, occasionally making us climb to seventh heaven and then adopt a slower pace, like the Italian lover who practices carezza, I was ready to buy everything he had just told us. Adios critical thinking. However, after this session where he left us panting, out of breath, in full post-orgasmic delirium, we find ourselves lighting a cigarette and then reflecting on the lover's performance. "Damn salesman!" He's had us again. Because Steve Jobs is the king of presentations in front of large crowds. After this performance, all the disciples as well as the ambivalent characters who, like me, run on sail and steam, we were ready to kneel down, to convert ourselves forever at the altar of the Holy Apple and to kick out the slightest object that could be associated with Uncle Bill. However, the more the minutes passed, the more we had the impression that our lover had given us this solid performance, in reality to impress voyeurs who must have observed us through the small end of his telescope, I mean the investors and Uncle Bill himself. A touch of bitterness The last MacWorld had left Apple aficionados with a rather bitter taste in their mouths. The total and definitive elimination of the free iTools services, replaced by a practical Mac certainly, but priced at $100 per year, the disciples had not always digested it. Furthermore, faced with a five-year agreement with Microsoft that expired a few months ago, a lineage that was running out of steam and financial analysts who did not recommend Apple to investors, this good Steve had to react and hit hard at this MacWorld. And, by decoding his speech carefully, we realize that there were several messages that the Reverend Father Ste iJobs 1st was trying to get across. First, to affirm loud and clear that the concept of digital lifestyle (digital hub) is indeed here in the long term. With the integration of its iApps -- iPhoto, iTunes, iMovie and iDVD -- under the name iLife, Steve Jobs thus affirmed Apple's leadership and clear lead in this area, while Microsoft is marking time miserably in trying to match Apple's prowess. Furthermore, continuing to hit the opponent already on the floor, Jobs unveiled a consumer version of his video editing software, Final Cut Express. Mission accomplished, no one, except Apple, has achieved such mastery of this concept. Let's bet that the iLife concept will be a "colossal" success that everyone will try to copy, without however reaching the ankle of Apple. Second, impress the gallery with new computers that look amazing and are packed with the latest possible technical features. A 17-inch laptop, good people, I'll let you imagine the monster on your knees. However, things go wrong when, once the enthusiasm of the moment has passed, and looking around us a little, we realize that Apple is only adding a small inch to its screen, Sony and Toshiba already doing 16 inches, while keeping at its heart the same out-of-breath chip that is the G4. Some, like your not very humble self, will say that for almost all of our needs, such a chip is more than enough, but that's not how the market works. He asks for more power, making comparisons with the PC world where 2 and 3 GHz chips are commonplace. Third, by introducing a new browser, Safari, and above all, a PowerPoint-like presentation application, Keynote, Jobs sends a very clear message to investors and to Uncle Billou: we are now able to do without Microsoft. I would not be surprised if at the next MacWorld this year, Jobs pulls out of his bag a new version of his AppleWorks office suite, an application that has not been updated for a very long time. Some rumors even speak of the next version of AppleWorks as an "Office-killer." The year of standards But the real issue that is emerging behind this speech by Jobs, and on which the main interested party has placed little emphasis, concerns norms and standards. For some time now, my personal crystal ball has been telling me that 2003 will be the year of standards, openness and the abandonment of proprietary and restrictive licenses that many users and IT managers are beginning to find restrictive. At one point, during his speech, Jobs clearly announced that Apple, a firm known in the past for having jealously and almost excessively defended its highly proprietary code, in short, that the Holy Apple was increasingly playing the OpenSource card. "We love OpenSource." And how! Launching a browser based on a free-source engine, a profession of faith that it would become a model in terms of compliance with standards, opening the code of the file format of its Keynote application, adopting the new 802.11g wireless standard, a backwards compatible version of the current 802.11b standard, as a declaration of love for OpenSource, you can't do better. Already the heart of Mac OS X comes from an OpenSource kernel and its networking technology, Rendez-Vous, is also based on free source code which, now that Apple has improved it, can benefit the entire community. All that remains for Apple, after this MacWorld, is to tell us what engine it will use under the hood of its next computers. In this, Jobs was totally discreet. Nothing, not a word on the matter. However, Apple has no choice, with its G4 on its last legs, it must tell the market who, Motorola, IBM or AMD, will become the foundry of choice for the next chips that will beat wildly at the heart of future Macs. By continuing to show faith in open standards, by improving and giving back to the community the improvements made to the source code, by championing the concept of the digital lifestyle, while indicating what the next engine of Macs will be, there is no doubt that Apple will continue to play its role as leader of the industry. Hoping that everything can finally be transformed into sales figures that are more attractive to investors. mdumais@ledevoir.com

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A large part of the planet's inhabitants still do not have access to electricity. The Internet is therefore far from their concerns. However, recently, experiments have multiplied to introduce the most remote tribes and villages to the network of networks. USING A computer in the tropics and connecting it to the Net is possible but still requires a feat of strength. Where to find electricity? The JHAI Foundation, an American-Laotian humanitarian organization, has resolved this question for several tribes in Laos. The team has in fact built computers whose power supply comes from pedal generators. The native pedals and in exchange, he gets light and the Web! Lee Thorn, JHAI Foundation program coordinator, explains: "The Internet is primarily a communication tool in these villages, which each person, about 2,000 individuals, will be able to use. Our projects also touch on agriculture, school development..." Thus, in Laos, farmers in the Ban Phon Kam region live 30 km from the Phon Hong market. To resell their surplus rice, they "need accurate and precise information on market prices", hence the importance of computers and the Web. The JHAI Foundation workers have designed microphones that are resistant to heat and ambient humidity. They are old 486 MHz PCs. However, conditions are not always easy in these regions: hard drives rot, become covered in fungus, etc. The JHAI Foundation has done everything to avoid these problems and uses robust computers, equipped with a Laotian version of the free Linux software. Five villages are connected to each other by satellite antennas, powered by solar panels. The Laotian experiment is original, but not unique. It is also practiced in the Mongolian countryside. "Today, satellites and wireless technology are overtaking outdated infrastructure and installations to provide approximately 4,000 of the 2.4 million Mongolians with direct access to the Internet," notes the International Development Research Centre (IDRC) on its website. This is quite a feat in a country where 95% of the people are illiterate. On the edge of the Himalayas, there is a country so small, Bhutan, that many have forgotten it even exists. "After much thought, the Internet entered this country of 1,600,000 people on June 2, 1999, the 25th anniversary of the king's coronation," the authors of the Bhutan computerization project recall on the IDRC website. For the moment, there are only a few hundred Internet users, and the goal of IDRC's Pan-Asia Network program is to introduce the Web to rural populations. Several thousand kilometers away, in South America, Amazonian tribes are also discovering the Net. At the Summit of the Americas in March 2001, Mino-Eusebio Castro, chief of the Ashaninka Marankiari Bajo village in the Amazon jungle of Peru, came to testify to his village's interest in the Web. According to Mr. Castro, "After five centuries of struggle, this is the first opportunity the Ashaninka have had to shape their community... The Internet gives villagers the opportunity to form strategic alliances, not just with other Ashaninka, but with First Nations around the world." Today, the Ashaninka even have their own website, where they explain their use of the Internet. While all of these experiments are successes, the technological divide remains as wide as ever from one continent to another. According to a survey by The UN Information and Communication Technologies Task Force, while one in two North Americans has access to the Web, only one in 250 Africans does... LEARN MORE International Development Research Centre http://www.idrc.ca/en/ Internet Progress in Rural Mongolia www.idrc.ca/reports/read-article-english.cfm?article-num=683 Bhutan Gets Connected to the Network of Networks www.idrc.ca/reports/read-article-english.cfm?article-num=611 Ashaninka Website www.rcp.net.pe/ashaninka/ Ashaninka Project www.idrc.ca/reports/read-article-english.cfm?article-num=837 JHAI Foundation www.jhai.org

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A sting in Microsoft's armor. While the Seattle firm had continued to rack up legal victories in recent times, the decision handed down Monday evening by the federal court in Baltimore has given new fodder to those who contest the practices of the world's number one software company. By forcing Microsoft to integrate the universal language Java into its Windows operating system, Judge Frederick Motz has allowed Sun Microsystems to score an important point in its legal battle against its competitor. Incompatibility. Filed last March, Sun's complaint against Microsoft, in which it is seeking more than a billion dollars in damages for violating antitrust law, is based on a double accusation. For Sun, Microsoft was first guilty of "forcing companies to distribute or use products that were not compatible with Java." But, in addition, Sun also accuses the Seattle giant of having gone so far as to illegally distribute its own version of Java, thus trying to extend to the world of developers the monopoly acquired in PC operating systems with Windows. Appearing seven years ago, Java is a universal programming language that allows certain programs to run, including animations and graphics on many Internet sites. An open standard, originating from the world of free software, programs written with Java can run under any operating system, hence the potential threat to Windows, which equips nine out of ten computers in the world. "Although claiming to respect the objective of compatibility, Microsoft has intentionally taken various measures to frustrate this goal," the judge wrote in his decision. In other words, Microsoft, for whom, according to Sun, "all means are good", has indeed tried to eliminate Java, which it feared would one day become an operating system competing with its own. Today, all the major publishers such as IBM, Hewlett-Packard or Oracle market software based on Java, except Microsoft. The stakes are all the more strategic since this language, which Scott McNealy, the president of Sun Microsystems, compares to an "English of computing", constitutes the backbone of the majority of "web services", these new remote applications which represent the next generation of the Internet. And in this area again, Microsoft is going it alone by developing its own language with ".Net". "Take the automobile sector, no one owns the location of the steering wheel or the brake pedal, Scott McNealy is fond of saying to explain his fight. The market players have agreed that the elements should always be in the same place, but each of them designs them in their own way, with their own design and their own subcontractors." In order to allow Java to work with Microsoft's dashboard, Monday's court decision therefore orders the world leader in IT to allow a current and compatible version of Java to be present on every computer equipped with Windows, which is the vast majority of them. But the decision is purely provisional, since the trial on the merits will not take place for at least a year, in California. Appeal. At Microsoft, there is a gloomy face. "We are disappointed with the judgment," said a spokesperson for the company, before announcing that the company would of course appeal. In addition to the lawsuit filed by Sun, Microsoft, which has become familiar with the courts, is still facing multiple complaints filed by companies such as AOL, consumer associations and the American states of Massachusetts and West Virginia, which are still refusing the amicable compromise negotiated by the American courts in November 2001. Not to mention the European Union, whose results of the investigation into Microsoft's antitrust practices should be made public at the beginning of next year.

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Find on the website of Le Monde (www.lemonde.fr/carnet) the details of the appointments, the main laws, decrees and decorations published in the Official Journal, as well as the addresses of the sites publishing significant documents. In the Official Journal dated Monday 16-Tuesday 17 December are published: Mutuals: two decrees amending the mutual code. Dominique Girard was appointed ambassador to India, by decree published in the Official Journal of 14 December. He replaces Bernard de Montferrand, appointed ambassador to Japan. The National Assembly publishes the bill containing various provisions relating to town planning, housing and construction. La Documentation française has put online the report of the High Committee for Housing for Disadvantaged People. www.assemblee-nationale.fr /12/projets/pl0402.asp The National Assembly publishes a bill relating to the movement and parking of nomads. www.assemblee-nationale.fr /12/propositions.pionO208.asp The Senate publishes a bill aimed at generalizing the use of the Internet and free software in the administration. www.senat.fr/dossierleg /ppl02-032.html The Senate publishes a bill amending the law on urban solidarity and renewal. www.senat.fr/dossierleg /ppl02-037.html The Senate publishes the draft resolution on the draft directive on environmental liability with a view to preventing and repairing environmental damage. www.senat.fr/dossierleg /ppr02-056.html The Senate publishes the proceedings of the conferences organized under the high patronage of Christian Poncelet, President of the Senate, and the Japanese Center for Local Authorities, with the support of the France-Japan parliamentary friendship group and the Japanese Embassy in Paris, from February 17, 2000 to February 15, 2002. www.senat.fr/colloques/france-japon/france-japon.html The Senate publishes a bill aimed at making VAT paid by companies for the purchase of electric vehicles or vehicles under 3 meters deductible. www.senat.fr/dossierleg /ppl02-022.html www.ladocumentationfrancaise.fr/brp/notices/024000619.shtml La Documentation française publishes the report of the National Center for Cinematography entitled "The technical industries of cinema and audiovisual: situation of the sector and recommendations for the future". www.ladocumentationfrancaise.fr /brp/notices /024000578.shtml

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Last week, we tried to convince you that a recycled computer from reputable companies like Insertech Angus was an excellent acquisition. But what is a computer without software packages, if not a pile of electronic components in a metal case that can serve as a door wedge. In addition, did not the columnist promise you last week that you could "stuff" your computer with free software? Hop! Get to work PTH. Let's be honest: add up the costs inherent in acquiring the operating system, an office suite, image processing software, and a few other software packages, and the bill can easily reach two to three thousand dollars. Some will say that legality, basta! However, many free software packages are not only just as powerful as commercial products, but some of these software also offer unique features that are not found anywhere else. Windows or Linux? THE choice to consider before anything else. If you opt for Linux, tell yourself that you will have in your possession an open, high-performance operating system, based on Unix, the same kind of operating system that Apple's disciples are so fond of, Mac OSX being, also, a delicious variation on a Unix theme. In addition, by installing a Linux distribution, you will not have to worry about rummaging through the thousand and one corners of the Web to find office applications or image processing for example, because all of them, without exception, offer you an incredible choice of free applications and games. However, and I can very well understand this, many of you, for reasons of ease of use, for fear of not adapting to Linux, in short, you absolutely want to install Windows. No problem, the columnist understands, and bows. But unfortunately for you, Windows is not free software, and even less free. By visiting the Quebec classified ads website "Les petites annonces classés du Québec", I was able to find original versions of Windows 95, 98 and ME at a very low price. Also check with your acquaintances to see if they don't happen to have versions of this operating system sleeping on some tablet. Star Office, obviously Nothing to do, columnists like me will tell you in vain that using the MS Office suite to write two or three letters and calculate a budget with the spreadsheet is like taking a Ferrari to go to the convenience store, nothing helps, you absolutely want to install mammoth on your hard drive. Unfortunately, mammoth is expensive, very expensive, too expensive even, we can never say it enough. So opt instead for the OpenOffice office suite. It is free. Mammoth, it is also and it manages to do everything that the MS Office suite does. The OpenOffice suite for Windows: a text editor, an Excel-compatible spreadsheet, a PowerPoint-style presentation software, a vector drawing package, and lots of other useful little things. It's free, and it's the best price the columnist can give you. Graphics and image editing The Windows world has, in my opinion, one of the most beautiful software gems there is: IrfanView. Free. And incredible. Irfanview is the Swiss army knife of the image world. It opens almost all image, sound and video formats, and allows you to convert them to whatever you want. As a viewer, it's the champion, my champion (according to Céliiiiine). Similarly, for "Photoshop-style" image editing, The Gimp, a software package from the Unix world, allows you to do almost all the same manipulations that an image pro does with Photoshop. With the only exception that The Gimp is free. Once again, this is my best price. As for the vector drawing software "like Illustrator", look no further, you have already downloaded one with the OpenOffice suite. And there you have it! Abundance on the Internet Internet applications, such as browsers, email client software, Flash! plug-ins, Acrobat and the like, everywhere, always free. On the Web, or freeware sites like Tucows, Internet software packages are abundant, and you will never have to pay for them. Banania is good! Antivirus and firewall Can't afford to invest in a firewall and an antivirus software package? I understand you. Good news, there are two free applications that can protect your computer. On the antivirus side, it's Grisoft, a very effective Windows software package, which will monitor all the entry points of your computer, ready to protect you from a possible invasion. Email? Grisoft does it for you. However, even if you are now protected with an antivirus software package, it would be better not to take any risks and think about installing a firewall. Zone Alarm. There you go. As simple as that. A hyper-efficient firewall, and the free version will protect you against any possible invasion. Don't hesitate for a second, download the basic version, you won't regret it, and you will feel safer. A free must-have. As you can see, there is no shortage of little wonders on the Web. A quick visit to sites like Tucows, and you will find everything you need. For free. Who said it should cost thousands of dollars to acquire software? Not me. Shall we continue next week? A more complete version of this text as well as a comprehensive address book are available on our website at www.ledevoir.com. mdumais@ledevoir.com

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What a surprise I had on November 15 when I saw half of page B 1 of Le Devoir devoted to Bill Gates giving a few cents in India to promote the sale of his software that is under attack in that country. Let's be realistic, 500 million given to India is nothing compared to what he will receive if India changes its current policy in favor of free software. Bill Gates also says that he will give his fortune to charity. He whose company does not give a cent in dividends to its shareholders. Let's not dream. Every time Gates has given something, it was to receive more; the poisoned gifts he gave in Africa recently stuck in his throat when Namibia refused the few "gifts" that tied it expensively to Microsoft (references: http://www.theregister.co.uk/content/4/27878.html and http://www.schoolnet.na/pr/msftrelease.html ). Gates' $500 million gift to India is a war investment in this conflict between Microsoft and free software. Countries around the world are currently deciding on technology management policies, they want to replace proprietary technologies with free technologies. The goal is for these countries to decide whether they will take control of their technologies by educating their people or whether they will become powerless buyers of American technologies. Canada and Quebec have already decided to become buyers, India has decided to take control of its future and train its workforce. Shouldn't Le Devoir promote knowledge rather than ignorance? In recent months, Gates and Microsoft's top ministers have traveled the world (China, Australia, South America, Africa) to "give gifts" to countries that have implemented technology management policies based on knowledge rather than purchasing; reporting this in your newspaper would set the record straight. Denis Bergeron Sociologist and computer scientist Montreal, November 15, 2002

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IN VIEW of the holiday season, the American chain Wal-Mart has decided to exploit the growing interest that consumers have in computers displaying "neither Windows nor Intel microprocessors." Wal-Mart offers entry-level PCs, for $199 US, manufactured by Microtel Computer Systems, equipped with a VIA Technologies microprocessor, and running an operating system developed from the open source Linux software.

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With chips that are phenomenally powerful enough to power the most capricious applications and operating systems, manufacturers, caught in their own game, are no longer able to convince consumers that it is realistic (and necessary) to change their computer every two years. Many used computers with enough power to meet the needs of a host of users are now available at low cost. Are you a millionaire? Bravo! I am delighted (like the bison), but unfortunately, like the majority of Le Devoir readers, my budgets for acquiring computer equipment are limited. If you have, oh dear millionaire, the latest power-drunk monster with a chip churning at gazillions of gigahertz, so much the better for you. But, personally, because of these limited budgets, and because the chips available today offer such processing power that they manage to make a clumsy Windows XP gallop like a cheetah, I am not getting involved anymore. I am not getting involved anymore, unless it is a professional obligation, in this infernal cycle to which manufacturers have accustomed us, that of changing our computer every two years, Moore's law or not! And bang! for Mr. Moore. A piece of trash. Moreover, a computer is, like Santa Claus, a piece of trash that, once abandoned, risks polluting the environment with its motherboards containing heavy metals. Instead of throwing away our greasy cabbages as we currently do, we should, as a supposedly responsible society, either give these computers to schools, universities or ordinary workers in underdeveloped countries to allow them to take the information turn, or take the time to recycle them, to give them a new lease of life, so that they can then experience a new life with new owners. Your budget doesn't allow you to offer that new computer with all the clicks? After a hard life of work, you are retired and you would finally like to take the Internet turn, but your wallet is visibly shrinking every time you take it out of your pocket? Do you think that your low income will prevent you from offering that little gift that will please your kids so much? Resist commercial pressures and the inflatable neighbor syndrome, and invest intelligently and responsibly. Take the leap into this information society by taking a look at recycled computers. Skeptical? You shouldn't, because you risk missing out on a good opportunity. It is possible today to acquire refurbished recycled computers, with a good warranty, and with a chip powerful enough to allow you to use an excellent office suite, use all Internet applications and play excellent games. Furthermore, what would you say if, in addition to acquiring a good computer, protecting the environment and saving your precious "things", your gesture allowed to give work to young people, young people who have everything to gain by recycling computers, instead of perhaps begging in the street. For example, in the old Angus yards, there is a company called Insertech. Insertech's mission: to train young people, as much on the personal, social and professional levels, while offering a variety of computer products and services. In short, new products, but above all, recycled computers. A damn fine mission, and good machine vests. An opportunity Let's be honest, do you think that recycled computers are just trash that no one wants? Once again, you would be wrong to turn up your nose at what is, in my opinion, THE good opportunity of the year. For less than $300, you could become the owner of a computer equipped with a 450 MHz Pentium II chip, 64 MB of RAM, a comfortable 2 GB hard drive, a sound card, speakers and a network card, in addition to a mouse, a keyboard and a 15-inch screen. However, if you want even more power, know that Insertech also recycles Pentium IIIs with powers of 750 MHz. With your 450 MHz Pentium II, Windows 98, an office suite such as MS Office 97 or 2000, and Internet applications that you can download from the Web, but here you are in business for cheap. Even if these applications are no longer for sale, you can find them at low prices, on classified ad sites. Still skeptical, dear reader? I currently have, as an Internet server, a Pentium II almost identical to the one described above, and connected to the optical fiber. A server and not a simple desktop computer. And this one was previously next to me as a Linux workstation. And I have never had to complain about its performance. And my next personal computers will also be recycled PCs. Because, obviously, if your budget does not even allow you to acquire software, even used ones, free software offers you the choice of being able to install almost all the possible applications for which, normally, you would have to pay hundreds of dollars. And do not tell me that free software locks you into a straitjacket of non-compatibility with the outside world. Hell no! I have a good acquaintance, a well-known and respected journalist, who uses only free software to write, create, draw, make diagrams, communicate, surf the Web, and his correspondents, who use commercial products, have never asked him to redo his reports because of incompatibility with the usual office suites. In addition, his computer has a CD-ROM burner and a ZIP reader, two peripherals that work very well under Linux. Finally, our rascal occasionally listens to a few MP3 files. His only investment in all this? His computer. And his software? Zippo, niente, nada, gratos! And all of it, used legally please. But, who knows, for reasons that I respect, after all, we are not fanatics, you may want your computer, recycled as it is, to run under Windows. Bravo, it's your choice. Next week, I will prove to you that by intelligently purchasing a recycled computer from Insertech, you can then "stuff" it for free and legally with various applications and games, whether under Windows or Linux. Imagine the face of the person who unpacks it when he realizes that his computer is ready to use immediately. And also imagine the face of your wallet. mdumais@ledevoir.com Insertech www.insertech.qc.ca

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"Microsoft has such a monopoly that it can set a price for Windows that is substantially higher than what would exist in a competitive market." This was one of Judge Jackson's main conclusions in November 1999, before ordering the company's breakup in June 2000. A document dated November 14, sent by the software publisher to the SEC, the American Securities and Exchange Commission, supports this accusation. It shows that the profit rate for Windows, Microsoft's flagship product, is 86%: on sales of $2.89 billion in the third quarter, the firm generated an operating profit of $2.48 billion. Enough to anger user associations. The American Consumer Federation immediately denounced "a mountain of money that is clearly obtained illegally." This also comforts Microsoft's detractors: "This figure shows that Microsoft benefits from a monopoly rent," says Stéfane Fermigier, president of the French-speaking Association of Linux and Free Software Users. "The game of supply and demand doesn't work. The company sets its prices arbitrarily." Discretion. At Microsoft, they don't brag. "No comment," they say in the French subsidiary. "We don't have a lot of information on this." The figure has not been the subject of a press release. It is deeply buried in a long financial document, published each quarter by the firm and available on its website (1). For the first time, this document presents the margins of the company's main product lines, a new feature that reflects a change in Microsoft's organization. We also learn that the division that includes Office (office software) also has a rather comfortable profit rate of 78%. The server branch, where Microsoft's market share is close to 50%, has a more modest rate of 34%. Thus, the more Microsoft controls a market, the more its profit rate soars. A drain. On the other hand, all the other divisions (Internet, software for electronic diaries and mobile phones, video games, etc.) have accumulated a deficit of 830 million dollars. "These sectors are literally financed by the profits of Windows and Office," noted an American analyst from Gartner after the figures were announced. Enough to revive accusations of monopoly abuse. To these arguments, Microsoft generally retorts that its model is comparable to that of companies in the film, pharmaceutical or luxury goods sectors: "Our economy is linked to high fixed investment," explained a manager in 1999. However, no industry has such high profit rates. In early 1999, several American consumer groups wanted to claim $10 billion from Microsoft for the "monopolistic surcharge" unduly levied on Windows buyers. Now they will be able to refine their calculations. (1) www.microsoft.com/msft/sec.htm

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The documents cited are available at www.lemonde.fr/surlenet Logicielslibres OpenSource.org reveals an internal Microsoft note in which the publisher acknowledges the counterproductivity of its campaigns against free software, that is to say, copyable, distributable and modifiable without having to pay royalties. www.opensource.org/ halloween/halloween7.php In La Cathédrale et le Bazar, Eric Raymond explains how computer systems developed by involving the community of programmers are superior to large computer complexes such as Windows. www.linux-france.org/article/these /cathedrale-bazar /cathedrale-bazar\_monoblock.html O'Reilly Publishing publishes a set of historical texts on free software on their site. www.editions-oreilly.fr/divers /tribune-libre/ Samizdat.net has collected contributions from Richard Stallman and Bruce Sterling criticizing copyright legislation, which would restrict creation and innovation. http://biblioweb.samizdat.net /rubrique.php3?id\_rubrique=4 Les éditions de l'Eclat reproduce online the articles from their anthology of "free" software entitled Libres enfants du savoir numérique. www.freescape.eu.org /eclat/corps.html In 1985, Richard Stallman wrote the GNU manifesto (for "GNU is Not Unix") setting out the foundations of the philosophy of free software. www.gnu.org/gnu/manifesto.fr.html A doctoral student from the University of Montpellier-I has conducted a legal study of the GNU public license. http://crao.net/gpl/gpl.html vincent.truffy@lemonde.fr

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A storyboard, 17 directors and, in the end, a rather curious ten-minute film. Memefeeder is an online film project launched by two British multimedia producers, Rana Singh and Carol Battle. From a shared storyboard of 10 themed scenes (Scene 1: "Rude Awakening", 2: "Hello, who's there?"...) accessible online, directors based in Paris, Mexico, Sydney, New York, Los Angeles, Tokyo, Hamburg each worked on one of the scenes of the film. No imposed beginning or end, everyone can give free rein to their imagination. The only constraint is that each scene is limited to one minute. In the end, the initiators of the project picked from the extracts sent and stuck them end to end to obtain the film. The result is a kind of experimental exquisite corpse around Big Brother: men and women trying to escape a society that spies on them (an amusing scene with a man who, convinced that his clothes are bugged, only regains his calm once he is completely naked, another with an employee tracked by the eye of surveillance cameras as soon as he crosses the threshold of his company, then spied on by webcams placed on computers). A little disjointed, the collage holds up despite varied visual approaches (black and white, color, incorporation of graphic elements) and narratives, registers that range from the comical to the dramatic. The Internet user can also access a "random" version, where the computer chooses the sequence of scenes. He can edit his own film "à la carte", by selecting the scenes himself, obtaining radically different atmospheres or stories each time. This project, which is especially valuable for its concept, is "open source", anyone can copy, distribute, modify the result as they wish.

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Fashion phenomenon or real revolution? The tenth edition of the Networld Interop trade show, which will be held at Paris Expo, Porte de Versailles, from November 6 to 8, will allow us to verify it: more and more companies are choosing free software to manage their servers, administer their websites or equip their employees' office workstations. Nearly a third of the servers of French companies use the most emblematic of these software, the Linux operating system (or more precisely GNU/Linux). Its main clients? La Poste, Schlumberger, France Télécom, BNP, L'Oréal, Médiavision, Radio France, Publicis, Sagem, Alcatel or Bouygues Telecom. Not to mention administrations such as the General Delegation for Armaments, the European Institute, ART, the Cité des sciences et de l'industrie de la Villette, the Ministry of Equipment or the CPAM of Strasbourg. For its part, Apache software holds 66% of the Internet server market, according to the latest results from Netcraft. Free software is also at the heart of 3D animations in films such as Titanic, Star Wars Episode II and Scooby-Doo. According to a study by Hambrecht, the market for services dedicated to free software will increase eightfold in 3 years, from 500 million dollars in 2001 to 4 billion in 2003. Great flexibility of use The reasons for this phenomenon? Firstly, the very principle of free software. These are programs like any other, but which can be freely distributed, copied, analyzed and modified. Unlike proprietary programs such as those from Microsoft, Oracle or Adobe, distributed in the form of executable programs that only the computer can interpret, free software is accompanied by its source code, that is to say the details of the instructions it contains. The user can thus study its operation and adapt it to their needs. "We are faced with a new vision of IT," explains Raphaël Rousseau, consultant for the Alcôve company and vice-chancellor of the FSF Europe (FreeSoftware Foundation). This principle provides a guarantee of sustainability to users who can work on their programs to improve them." Even if free does not necessarily mean free, the majority of this software, or at least its source code, is available on the Internet. "In fact, the cost argument is secondary," observes Raphaël Rousseau. Large companies devote a colossal budget to their IT. Their concern is more to obtain software adapted to their organization than to look for cheap products. But the expenses incurred by license management do not represent any added value." Stability, reliability, security While with proprietary software, the cost of licenses increases proportionally with the number of users, free software can be installed at will. Result: given the absence of licensing costs, investments are transferred to services: integration, training, maintenance. They are also lower since the user is no longer subject to the repeated updates imposed by traditional publishers. An argument that adds to the many advantages recognized by specialists. Starting with stability, reliability and security. "Having access to the source code allows us to immediately detect and correct the slightest flaw," emphasizes Emmanuel Manganneau, manager of Pimentech, a service company specializing in Unix systems and free software. A recent survey reveals that this software is faster to deploy and integrate, allowing a time saving of 10 to 25%. "It took us only two days to configure a server for one of our customers for messaging, file transfer and the Web," says Emmanuel Manganneau. The machine itself only cost him 1,500 euros. We simply used Linux, which contains all the necessary applications as standard. » According to a survey conducted last year by Benchmark Group, 75% of companies declare themselves "satisfied without hesitation" with free software. Contrary to popular belief, the financial argument comes last. The reliability and security criteria are cited first. The majority of companies surveyed chose free software for their operating system, their Web server or their mail server. However, the savings made on license costs are often offset by installation and configuration costs. In the absence of a clearly identified publisher or a contract with a service company, it will be necessary to contact independent programmers who will not necessarily have the time or the desire to respond to specific technical problems. "Free software is spreading with varying degrees of success in the three main sectors of corporate IT: infrastructure, office automation and business applications," confirms Raphaël Rousseau. We can say that it has acquired its legitimacy for infrastructures. With equal functions, they prove to be more efficient. On the other hand, they have more difficulty establishing themselves in office automation and business tools, because commercial software publishers have locked the market by locking users into proprietary file formats. " A know-how to acquire Many tools are available under free license. All that remains is to have the appropriate know-how. "It is essential to be in contact with the community of free software developers," says Raphaël Rousseau. "It is the only way to obtain rapid responses and to learn about current developments. Traditional IT service companies are not the best placed, which is why we are seeing the emergence of small specialized companies that are well integrated into the free software community." An activity that, with the success of Linux and its ilk, should develop.-

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The University of Ottawa has awarded a chair and a seven-year research program to philosopher Pierre Lévy. An opportunity for this utopian, considered in France as an Internet "fundamentalist", to delve deeper into this field of research Ottawa The essential: an Internet connection. To connect to the world thanks to his two laptops that sit on a desk devoid of any documents. On the shelves, which are still largely sparse, there are translations into Russian, Korean, Brazilian and English of his books Cyberculture and What is the Virtual? In the morning, his name was added to the door. On this October day when the temperature would encourage you to get out your fleece jacket, Pierre Lévy has only a large white wool shawl on his shoulders as he takes possession of his new office, on the first floor of a small Victorian-style building. For this 2002 academic year, the University of Ottawa has just awarded him a chair and a seven-year research program on collective intelligence. The opportunity for the French philosopher living in Canada to delve deeper into a field that he has been deciphering for over ten years. With the firm hope of making it a discipline in its own right. "My ambition is to create a new scientific field in the study of intellectual cooperation. Collective intelligence is an approach to society that considers human groups (a company, a city or humanity itself) as cognitive systems that create, innovate and invent. The objective of this research program is to model collective intelligence processes in order to test and improve them. We are currently setting up a virtual community that will bring together 150 correspondents from around the world, who will measure the effectiveness of e-learning and collective learning processes here, and local cyberdemocracy experiences there. This is a move to practice, to experimentation." Thus, the utopian Pierre Lévy, who maintains in his latest writings that "cosmic and cultural evolution culminates today in the virtual world of cyberspace", has decided to put his forward-looking analyses to the test of reality. DEVELOPING FREE SOFTWARE "I am convinced that the world will turn more smoothly if, gradually, we engage in a culture of collective intelligence. The ultimate and ethical purpose of this work is to implement it, to propagate it. We will thus try to create free software - probably with the help of a large French company - that communities can appropriate to improve their intellectual cooperation processes." The philosopher becomes a historian to recall the inventions of the human mind. Writing and the establishment of new forms of social organization around cities. The alphabet that lays the foundations of democracy and citizenship by making the law readable. Printing, which, thanks to a greater diffusion of ideas through magazines and newspapers, led to the Enlightenment, the Industrial Revolution and human rights. "I believe that, with the development of the Network, we will experience comparable political, economic and cultural changes. The fact that all the productions of the mind are linked in the same hypertext that is the Web is not a small event in the ecology of ideas. And it is no coincidence that the scientific community, which practices intellectual cooperation most intensely, was the one that developed the Internet for its own use. Today, an acceleration of collective intelligence processes allows everyone to express themselves and to dialogue in an autonomous, decentralized and low-cost way." In France, Pierre Lévy's theses have earned him to be categorized in the category of Internet "fundamentalists" by many, starting with his former friend, the sociologist and communication specialist Philippe Breton, who criticizes him for his "deeply mystical and prophetic" impulses. Canada's choice? "It's no coincidence. It was here that I understood, fifteen years ago, the importance of hypertext. And North American society is much more forward-looking." However, it is sometimes difficult to follow the futurist when he explains that "cyberdemocracy "opens" a new era of political dialogue taking democracy to a higher level" or that he envisages the "election of a president of the World Federation by universal suffrage via the Internet." For Pierre Lévy, cyberdemocracy is only in its infancy. And the philosopher emphasizes the increased participation of the population in the public space, particularly through discussion forums. Cyberspace favors the emergence of a global public space where there is freedom of expression and association on a global scale that has never been known before. And the anti-globalization movement is at the forefront of this active global public opinion through the Network. On the part of the States, there is a strong political will to develop e-government by reorganizing the administration around the citizen. "So why not elect a president of a World Federation via the Internet in the future?" exclaims Pierre Lévy. "Let's remember that universal suffrage was unthinkable three centuries ago! But the Web is only 10 years old, which is nothing on the scale of cultural evolution. In 1990, three years before the emergence of the Web, I explained in Les Technologies de l'intelligence (La Découverte, 1990) that all computers would be interconnected and that all texts would be gathered in a single hypertext. People laughed at me! In 1992, before the fashion for knowledge management, I developed "knowledge trees". I was accused of being a totalitarian because I advocated making groups' knowledge transparent. Today, all managers talk about sharing knowledge. What is unthinkable today will be perhaps obvious tomorrow." Pierre Lévy has seven years to confront his theses in the field and convince that he was right before everyone else. Stéphane Mandard (Le Monde interactif) Computers in society Born in 1956 in Tunis, Pierre Lévy defended twenty-three years later, at the Sorbonne, his master's thesis in history "Teaching, communication and knowledge in computerized society", under the supervision of Michel Serres. A student of Cornélius Castoriadis at the EHESS, he devoted his DEA thesis to the relations between computers and the West before obtaining his doctorate in philosophy for a work on the idea of freedom in Antiquity. Professor in the hypermedia department of the University of Paris-VIII, then at the University of Quebec in Trois-Rivières since 1989, he joined Ottawa in October 2002, where he obtained a chair of collective intelligence attached to the departments of communication and cognitive psychology. Author of a dozen works including Collective Intelligence (1994) and Cyberdemocracy (2002), he has submitted several reports on the cultural and political impact of the Internet to the European Union.

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a plan report recommends the development of a coherent purchasing and equipment strategy, which would support the national IT industry In a (very) fast-changing sector like information technology, can a player as clumsy as the State even dream of having a role? As strange as it may seem, a commission of the General Planning Commission, chaired by Hughes Rougier, former CEO of Matra Datavision, answers "yes, it can". First observation of this report entitled "Software economy: strengthening French dynamics", presented on October 17: the French "delay" in terms of new technologies is not as obvious as it seems. Of course, France has a smaller number of Internet users or broadband connections than Germany or England, and the State, with its subsidiary France Télécom, is not without responsibility in this situation. Despite this weakness of the domestic consumer market, the software economy already represents around 270,000 jobs in France, about as many as the automobile industry. As for turnover, it could well be around 31.6 billion euros in 1999 (47.6 billion for the automobile industry), according to Syntec informatique, the professional organization of the sector. Of course, France does not have many major software publishers, almost all of which are American. On the other hand, it occupies a comfortable place in systems integration (Cap Gemini Ernst & Young is ranked 6th worldwide) and companies like Dassault, Alcatel, Thomson Multimedia, etc. occupy significant segments in the new software fields. Can the State, which has played no role in this situation, change it today? Let's say it right away, the only really strong proposal in the report is the one concerning the State as a purchaser of software. In 2000, all local authorities and administrations spent 9 billion euros on IT expenditure. The State would therefore have an interest in thinking about its policy in this area, especially since its own future depends on it: as some attempts have shown - albeit imperfectly - at Bercy, an intelligent software policy offers a willing government a flexible means of successfully carrying out a reform of the State. The recommendation to create a centralized information systems department, which would be "responsible for architectural choices" and tools common to all State structures, or that of a reform of the public procurement code, which is currently poorly adapted to intellectual services in general and software in particular, seem to be stamped with common sense. The aim of all these operations would of course be to reduce costs by taking advantage of outsourcing offers for example, but also to support open source solutions (free of rights and perfectible by a community of users) and to build lasting partnerships with companies capable of working on systems useful to both the public and the private sector. This centralized policy makes all the more sense since, through its financial firepower, the State can usefully accelerate market developments in the direction of open source software. Well-targeted interventions can help propel a national outsider to the top or reduce the omnipotence of certain publishers, particularly American ones, who occupy monopolistic positions in certain market segments. In addition to its equipment capacity, the State can also play a useful role by financing research. Among the avenues mentioned, the implementation of a better targeted incentive policy comes first. Thus, the research tax credit could be expanded and the National Network of Software Technologies (RNTL), created in 2000 to promote private-public cooperation in the field of software technologies, would benefit from being better endowed with financial resources. Currently, public support for software engineering is only 80 million euros per year, which does not provide much incentive for public researchers to make a career in this niche. The rapporteurs also took the risk of studying the question of software patentability. Having understood that this was a highly controversial area where open source advocates feel penalized and where prior art searches risk turning out to be very conflictual, the Plan report refused to take a clear-cut position. And in the event that the scope of patentable material ends up expanding, the report recommends a number of defensive positions: trying to exclude methods and algorithms from patentability, as well as formats and languages, and trying to reduce product protection to three years instead of five. Finally, regarding software standardization, the report asks the State to play an incentive role. Vigilant and constantly vigilant public authorities would thus be able to usefully advise national or private companies so that they participate more actively in the regulatory committees that professionals spontaneously set up at the international level (the World Wide Web Consortium is the best example). Although the State's ability to play the role of omniscient sage can be seriously questioned, it seems that a centralized and intelligent purchasing policy with regard to software is the most promising path. Because if computer abstraction could help to overcome the very concrete corporatisms that paralyze or confiscate the functioning of the State, that would already be a certain progress. Yves Mamou

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Washington - The Supreme Court has a busy schedule: between now and April, it must consider the Alaska sex offender registry, the second repeat offense in California (which allows a video cassette thief to be sentenced to 50 years in prison), and the fate of people arrested in the fight against terrorism. In the meantime, the nine wise men have devoted some of their time to talking about the fate of Mickey Mouse. Mickey Mouse, born in 1928, does not have too many problems, but his master, Disney, has a huge one. The mouse is threatening to escape from him and go and sully in the public domain. A few years ago, copyrights held by companies were protected for 75 years: if the group had not reacted in time, Mickey would have regained his freedom in the coming months. But the Walt Disney Company has resources and, consequently, friends in Congress. The group has therefore insisted that American law align with European standards, which were then more protective. In 1998, the legislature passed a law, the "Bono Act" (nothing to do with the U2 singer). It extended the life of copyright in the United States by 20 years. Copyrights held by companies now have a life of 95 years. And the heirs of an author can enjoy the author's rights for 70 years after his death. The law has not made everyone happy. Eric Eldred, the owner of a website that publishes books that have fallen into the public domain, took the case to court. And for the past four years, his fight has captivated both Hollywood and Silicon Valley. Until now, Eldred has had no luck: the Washington DC court, then the Court of Appeals, dismissed his case. His hopes were rekindled when the Supreme Court decided to take up the case "Eldred versus Ashcroft" (named after the Minister of Justice). If the plaintiff were to rule in favor of the case, it would shake up the industry by putting thousands of musical, literary, and cinematographic works into the public domain. Few lawyers are betting on this hypothesis, but none are ruling it out: "The conservative justices of the Supreme Court, in the majority, have been trying for some time to limit the power of Congress, in light of the Constitution. This case gives them a new opportunity to do so," says James Halpert, an Internet law specialist at Piper Rudnick, who believes that the plaintiffs "have their chances." The big companies, in any case, are taking the case very seriously, and their lobbies have bombarded the Supreme Court with arguments. Especially since Eldred is not an isolated eccentric. He is supported by libraries, defenders of free software, and even, more surprisingly, by the National Writers Association. "These copyright extensions are unreasonable and do not benefit individual authors: they are subsidies to companies," explained Jonathan Tasini, its president. The writers preferred to defend principles rather than the monthly income of their great-grandchildren. According to the American Constitution, Congress is competent to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." The important expression is obviously "for a limited Time." Eleven extensions However, in the last 40 years, under pressure from large groups, Congress has already extended the duration of exclusivity of rights 11 times. How far can it go without emptying the substance of the expression "limited time"? The debates opening before the Supreme Court promise to raise some thorny questions like "What is progress?" Eldred's lawyers thus consider that Congress cannot "retroactively" increase copyright protection without violating the Constitution: indeed, if the work already exists, strengthening its protection does not promote "progress", but only the profits of the rights holder... Lawyers for the Motion Picture Association, the film lobby, retort that by allowing this profit, the extension of copyrights allows the restoration of thousands of classic films: Citizen Kane (1941, owned by Time Warner) has just been restored to be marketed on DVD. But to demonstrate that the "progress of the useful arts" is not incompatible with the extinction of copyrights, Eldred has a sledgehammer up his sleeve: does not Disney itself, the most powerful player in this battle, owe its fortune to characters that have fallen into the public domain? Where would the group be without the help of Cinderella, Snow White or the Little Mermaid?

## ###ARTICLE\_START### ID:345

Measures to strengthen the French software industry Banks would refuse the State's entry into Fiat The four main creditor banks of the Fiat group, Banca Intesa, Sanpaolo IMI, Capitalia and Unicredito, presented their positions on the crisis of the industrial group to the Italian Minister of Economy on Wednesday October 16. They announced that they had "positively assessed the plan - presented by Fiat and providing for more than 8,000 job cuts - with a view to recovery and recognized it as consistent with the framework agreement signed at the time with the company". This agreement provides for financing of 3 billion euros from the banks. But according to the Italian press on Thursday, the banks would have opposed the State's entry into Fiat Auto. This hypothesis, which has become increasingly credible in recent days, had seemed to obtain a green light in principle from both the governor of the Bank of Italy Antonio Fazio and the European Commissioner for Competition Mario Monti. A meeting between the government, Fiat management and the unions was scheduled for Thursday afternoon. Measures to strengthen the French software industry A REPORT from the General Planning Commission on the software economy published on Thursday 17 October notes the French backwardness in this area. The sector, which employed 270,000 people in France and generated 31.6 billion euros in sales in 1999, is lagging behind the United States in particular, while there is no French publisher in the Top 20 global publishers. To promote the dynamism of the French software sector, the study recommends two types of measures to the public authorities. On the one hand, it is a question of developing financial incentives, whether subsidies (only 80 million euros in 2000), tax deductions called "research tax credits" for innovative companies, or even direct investments by the State and local authorities in IT purchases (9 billion euros in 2000) to modernize public services. On the other hand, it is necessary to develop a favorable regulatory environment. This means encouraging the emergence of open standards, limiting the patentability of software which results in freezing the dominant position of certain companies (notably Microsoft) and favoring the use of free software (such as Linux). Reopening of the ports of the American West Coast A federal judge in San Francisco confirmed on Wednesday the reopening for 80 days of the ports of the West Coast, provisionally decided on October 8 after ten days of paralysis due to a conflict between dockers and shipping companies. This final injunction ends the lockout (closure) imposed on September 29 by shipping companies in the 29 ports of the West Coast. This decision comes at a time when the situation is still tense in the ports, where tons of goods have accumulated during the closure. Shipping companies accuse dockers of having lower than normal productivity, an accusation firmly rejected by the dockers' union. According to experts, it will take six to nine weeks to catch up on the accumulated backlog and the closure of the ports would have cost the American economy nearly 20 billion dollars (the equivalent in euros). industry services finance results CIDER SANTÉ: the services company for the pharmaceutical industry has sold Laboratoires Fornet, specialized in generics, for 14.7 million euros to the Japanese pharmaceutical group Sankyo, it announced on Wednesday, October 16. NESTLÉ: The management of Nestlé Waters, the water division of the Swiss group, stated on Wednesday that it would not proceed with any layoffs at the Vosges sites of Vittel and Contrexeville, but would resort to 101 job cuts as part of a logistics reorganization project. The CGT of Nestlé Waters France had indicated the day before that it feared "that these two factories would cease their activities" MICHELIN: Eighteen employees, CGT activists, have decided to sue twenty-eight managers of the tire manufacturer for "union discrimination". Already convicted before the labor court, Michelin is, this time, summoned before the high court of Clermont-Ferrand. The first hearing is scheduled for November 27. PEUGEOT: the car manufacturer announced on Wednesday the cancellation of three work days, on October 30 and 31 and December 20, for the 406 and 607 manufacturing teams at the Sochaux plant (Doubs) due to "the decline in markets". 2,218 employees will be affected by this reduction in production rates from 676 to 570 vehicles per day. AIR FRANCE: the unions of the national airline have decided to postpone the day of action against the privatization project, initially scheduled for Thursday, October 24, to Tuesday, November 5. This decision was taken "so as not to disrupt vacation departures" by the seven unions (CGT, CFDT, FO, CFTC, Sud, SNMSAC and Alter) during an inter-union meeting held on Wednesday afternoon. CRÉDIT MUTUEL: The general meeting of the Confédération nationale du Crédit mutuel on Wednesday reappointed Etienne Pflimlin and Georges Coudray for a fourth five-year term as president and deputy vice-president of the mutual bank, the bank announced. Mr. Pflimlin, 61, also chairs the Fédération du Crédit mutuel Centre Est Europe, the largest in the group, while Mr. Coudray, 59, chairs that of Crédit mutuel de Bretagne. AMERICAN AIRLINES: The leading American airline announced a loss of $924 million in the third quarter on Wednesday. For the first nine months of the year, American Airlines reported a total net loss of $2.982 billion, more than three times the $964 million loss it posted in the first nine months of 2001. APPLE: The American computer maker announced on Wednesday a net loss of $45 million for the last quarter of its 2002 fiscal year. For the full year, Apple reported a net profit of $65 million, compared with a net loss of $25 million in 2001.

## ###ARTICLE\_START### ID:346

The Supreme Court has a busy schedule: between now and April, it must consider the Alaskan sex offender file, the second repeat offense in California (which allows a video cassette thief to be sentenced to fifty years in prison), and the fate of people arrested in the fight against terrorism. In the meantime, yesterday, the nine wise men devoted an hour of their time to discussing the fate of Mickey Mouse. Mickey Mouse, born in 1928, does not have too many problems, but his master, Disney, has a huge one. The mouse is threatening to escape from him and go and sully in the public domain. A few years ago, copyrights held by companies were protected for seventy-five years: if the group had not reacted in time, Mickey would have regained his freedom in the coming months. But the Walt Disney Company has resources and, consequently, friends in Congress. The group therefore insisted that American law align with European standards, which were then more protective. In 1998, the legislature passed a law, the "Bono Act" (nothing to do with the U2 singer). It extended the life of copyrights in the United States by twenty years. Copyrights held by companies now have a life of ninety-five years. And the heirs of an author can enjoy the author's rights for seventy years after his death. The law has not made everyone happy. Eric Eldred, the owner of a website that publishes books that have fallen into the public domain, took the case to court. And for the past four years, his fight has fascinated both Hollywood and Silicon Valley. Until now, Eldred has had no luck: the Washington DC court, then the appeals court, dismissed his case. His hopes were rekindled when the Supreme Court decided to take up the case "Eldred versus Ashcroft" (named after the former Attorney General). If the plaintiff is in favor, it would shake up the industry by putting thousands of musical, literary and cinematographic works into the public domain... "Chances." Few lawyers are betting on this hypothesis, but none rule it out: "The conservative justices of the Supreme Court, in the majority, have been trying for some time to limit the power of Congress, in light of the Constitution. This case gives them a new opportunity to do so," believes James Halpert, an Internet law specialist at the firm Piper Rudnick, who believes that the plaintiffs "have their chances." The big companies, in any case, are taking the case very seriously, and their lobbies have bombarded the Supreme Court with arguments. Especially since Eldred is not an isolated eccentric. He is supported by libraries, defenders of free software, and even, more surprisingly, by the National Writers Association. "These copyright extensions are unreasonable and do not benefit individual authors: they are subsidies to companies," explained Jonathan Tasini, its president. The writers preferred to defend principles rather than the bottom line of their great-grandchildren. According to the American Constitution, Congress is competent to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." The important expression is obviously "for limited Times." "Progress of the Arts." However, in the last forty years, under pressure from large groups, Congress has already extended the duration of exclusivity of rights eleven times. How far can it go without emptying the substance of the expression "limited time"? The debates opening before the Supreme Court promise to raise some thorny questions like "What is progress?" Eldred's lawyers thus consider that Congress cannot "retroactively" increase copyright protection without violating the Constitution: indeed, if the work already exists, strengthening its protection does not promote "progress", but only the profits of the rights holder... Lawyers for the Motion Picture Association, the cinema lobby, retort that by allowing this profit, the extension of copyrights allows the restoration of thousands of classic films: Citizen Kane (1941, owned by Time Warner) has just been restored to be marketed on DVD. But to demonstrate that the "progress of the useful arts" is not incompatible with the extinction of copyrights, Eldred has a sledgehammer argument up his sleeve: does not Disney itself, the most powerful player in this battle, owe its fortune to characters that have fallen into the public domain? Where would the group be without the help of Cinderella, Snow White or the Little Mermaid?

## ###ARTICLE\_START### ID:347

In California, rebellious bio-informaticians design and distribute free of charge on the Internet, scientific data allowing the general public to carry out genetic manipulations In the small garden wedged between his veranda and the neighbor's fence, Eric Engelhard has installed three white wooden hives. They are in full activity, hundreds of bees fly permanently around his house: "Last season, they produced 140 kg of honey, I give some to everyone around me". However, it is not the honey that interests Eric, but the bees. They serve as guinea pigs to carry out genetic manipulations that he carries out alone, at home, in complete freedom, without consulting anyone. His goal is to create an animal that does not exist in nature: the venomless bee, whose sting will be harmless and almost painless... Eric, thirty-six years old, is not an amateur. Based in Davis, a university town northeast of San Francisco known for its life sciences research centers, he works as a "bioinformatician": after studying biology, he decided to devote himself to computer science, because genetic research now depends entirely on computers, the only ones capable of compiling, assembling, representing and analyzing the gigantic flow of raw data produced night and day by laboratories. He currently works for a company specializing in cancer research: "My personal project has nothing to do with what I do for a living, but I have the necessary knowledge thanks to my professional experience." Eric has set up a makeshift laboratory in the bedroom of his three-year-old daughter, who now sleeps with her big brother: "When you know what you're doing, you don't need much to do genetic engineering. A workbench, airtight containers, and over-the-counter chemicals and bacterial cultures. And of course, I need DNA, in this case from bees." or more precisely, stingers and venom glands crushed in a blender. From this paste, Eric managed to obtain pure DNA, thanks to a series of chemical reactions carried out in Tupperware. Then, to identify the gene responsible for the production of venom, he had his samples analyzed by a local company specializing in deciphering the genetic code: "It is a completely banal automated operation, which costs barely 25 dollars. The results are sent directly to my computers via the Internet, I just have to use my bio-informatics software to interpret them". By approximations, he ended up discovering what type of artificial gene would have to be implanted in the genome to inhibit the production of venom. He then tackled the design and then the duplication of the modified gene, still in small plastic containers. The whole thing cost less than 500 dollars. Today, Eric has several tubes filled with modified DNA, all stored in the family freezer. He is ready to move on to the next step: "I am going to extract sperm from a bumblebee? It's quite cruel, you have to tear out their genitals?, dehydrate it, then rehydrate it in a solution containing the modified genes, which will be incorporated into the sperm cells." Then, he will obtain about fifty queen bees, which he will artificially inseminate, one by one: "It's an old and outdated process, but the University of Davis has the appropriate instruments, they will lend them to me." The workers that will be born from this manipulation will have, in their genome, a copy of the modified gene, which will neutralize the venom gland: "Before next summer, bees without venom will be flying in my garden. For the rest, their appearance and behavior will remain unchanged? At least, in theory." Eric knows that in the United States, it is illegal to release genetically modified organisms into the wild without official authorization, but that doesn't worry him: "I'm going to read the new laws, to know what I'm risking. At worst, I'll do my experiment in a greenhouse, where my bees will remain prisoners? while waiting for better. But recently, the federal environmental protection agency gave a large firm authorizations to release much more dangerous organisms, including modified viruses carrying scorpion genes, intended to kill caterpillars in cotton fields." He also knows that the State will not be the only one interested in his work: "Here in Davis, there is a strong community of environmental activists, I don't know what they will think of my bees. I can also fear reactions from conservative Protestant churches, which are violently opposed to any form of genetic engineering. That said, I too am ready to fight for my ideas. I am in favor of absolute freedom of scientific research, my project will go to its conclusion" Eric is convinced that he is working in the interest of science, because he has decided to distribute the results of his research, his methodology and his software for free on the Internet. He will even give his bees to other researchers who wish to continue his work. In fact, he has embarked on a crusade against the spirit of commercialism and fierce competition that reigns in American biotechnology companies: "My bee project is a personal passion, like others make music, but it is also a liberation, a reaction against the climate of secrecy and surveillance that prevails in my workplace, against the propaganda that is bombarded to us all day long about the sacrosanct nature of intellectual property." Eric is particularly outraged by the practice, common in the United States, of filing patents on genes: "A human gene is not an invention, it is the product of three billion years of evolution, and it resides in every cell of each of us: how can a private company claim to own it?" Eric is not alone in his fight. Her colleague Katherine Nelson, who was one of the leaders of the large international project to sequence the human genome at Berkeley before joining the private sector, is even more categorical: "Our bosses don't give a damn about curing cancer, they just want to make a lot of money very quickly, that's all. Our company has patented 800 genes responsible for certain cancers, and now it confiscates this information for its own use. If we shared our results, other labs would join us, and together we would find cures more quickly, but we are forbidden to do so. On the contrary, our bosses often order us to abandon promising leads because they are afraid that it will not be profitable. The whole system is perverse: private labs collect scientific information from the public domain, they add a little something to it, then they file a patent covering all the data. It is legalized theft." Eric and Katherine created an association called CVBIG (Central Valley Bioinformatics Interest Group), which organizes monthly conferences: "We were hoping for about fifteen members, we have 180 in less than a year." Not everyone shares the convictions of the two founders, far from it, but Eric notes that many bioinformaticians are in favor of the principle of mutual aid and sharing: "The contagion with the Internet played a role. When I got into computing, I discovered the spirit of disinterested cooperation of hackers and the free software community, which works in "open source" (open source): the authors publish all the code constituting their software. Today, the majority of computers used in bioinformatics run on the free Linux operating system. It is much better than equivalent commercial products, because it is the result of mutual aid between thousands of passionate volunteers." Eric is also active in the local Linux Users Association (LUGOD), which has over 500 members. He does his best to foster contacts between the two groups, which have begun to mix. For example, Mike Simons, vice-president of LUGOD, has become an active member of CVBIG: "I come to promote the use of free bioinformatics software. There are more and more of them, because the "open source" philosophy is progressing in this environment. Californian universities used to copyright all the software created by their researchers, but now some of them require that their software be distributed in open source." One of the pioneers of "free bioinformatics", Jim Kent, does research for the University of Santa Cruz, a three-hour drive from Davis. He works mostly at home, a large, half-restored house in a neighborhood of workshops and warehouses. In the spring of 2000, he made a name for himself by creating in record time a software program that could assemble and graphically present raw data from the various laboratories participating in the international project to sequencing the human genome. Santa Cruz's free database is not as comprehensive as Celera's, but it comes close. Jim Kent has also distributed several other software programs for free: "I wrote them for my own research on the human and mouse genome, then I lent them to colleagues, and they spread naturally. Some researchers adapt or improve them, others call me to ask me to add this or that function. When I can, I do it, to be of service." On the other hand, Jim does not know what to think of Eric's bee project: "The garage geneticist, working in isolation, without any safeguards, is a novelty, there is no precedent. When you create a living being and release it into the wild, it will reproduce, interact with its environment. How will a bee evolve if its main weapon no longer works? Mystery... Let's hope that wild geneticists will be less irresponsible than those who work in multinationals." To his knowledge, Eric has not yet found any imitators, but that should not be long. In the San Francisco area, the debate on "free genetics" has emerged from the ghetto of specialists, thanks in particular to the action of various avant-garde cultural movements. Groups of visual artists, sculptors and videographers, who have called themselves "bio-artists" or "biopunks" - in reference to the cyberpunk movement also born in San Francisco - have decided to intervene in their own way. They are increasing the number of playful or provocative pictorial exhibitions, conferences and even interventions in schools. They warn public opinion against the actions of biotechnology firms, but also oppose traditionalists, religious or secular, who would like to prevent the advent of a new world, reshaped by genetic engineering. Already, they are campaigning for the legalization of all forms of "consensual" genetic manipulation, that is to say, practiced on a consenting adult or on oneself. Eric doesn't hang out with bio-punks, but like them, he dreams of seeing a generation of "bio-hackers" emerge among American youth, who will be passionate about genetics, just as their elders were passionate about the Internet and video games: "It will happen, if we give them access to all the tools and all the information. Soon, teenagers will surf the human genome in complete freedom, and God knows what they will discover... A bunch of kids having fun on the Internet can advance knowledge faster than a big pyramidal and bureaucratic project. I am sure that my venom-free bees will be adopted: their future is assured, even if it is unpredictable." Yves Eudes

## ###ARTICLE\_START### ID:348

The Linux User Festival held at the Carrefour de l'information at the Université de Sherbrooke attracted over thirty curious people. This operating system is little known to ordinary mortals and is worth discovering according to the students who initiated this introductory activity to the program. "Linux is free, unlike the Windows operating system, which requires the payment of a user license of nearly $800 per workstation. This is very expensive for a company or a school. Linux has significant stability. It can run 24 hours a day and almost never crashes. You have to check your hardware first or blame a power outage," explains Benoît de Ligneris, president of the Groupe d'Utilisateurs Linux de l'Université de Sherbrooke (GULUS). These two attributes make many people happy, as does the freedom to modify the program and install it on as many workstations as they want without restriction. "With the licenses, installation and modifications are very restrictive. Linux comes as free software. We can adapt the program to our needs. Windows is like a quiche whose recipe only one person knows and no one can get a copy to improve it. With Linux, all the recipes - or rather the source codes - are available so that the Linux community can benefit and we end up with the best program possible," explain Benoît de Ligneris and his vice president at GULUS, Xavier Thériault. Similarly, the choice of integrated software is very varied, allowing everyone to find the one that best meets their expectations, for example, for word processing. GULUS and the company Mandrake soft home Canada are currently developing a presentation of Linux adapted to the needs of the region's schools. "In the Haut-Saint-François school board, two schools have already tried Linux for its economic aspect, but above all its practicality. If the program is networked, it basically only requires a powerful computer. We therefore see the interest of other school boards and are preparing a special distribution in November in schools of the software that we have adapted," explains Mr. de Ligneris. Thus, the Gulus has developed a presentation that its members are currently testing and refining for distribution. "This tool lacks a bit of polish. If I compare it to a car, the engine and mechanics work, except that we have to improve the bodywork to make it more aesthetic," specifies Jean-Michel Dault, president of Mandrake. eleblanc@latribune.qc.ca

## ###ARTICLE\_START### ID:349

The Linux operating system is revolutionizing the world of computing by becoming the alternative to Microsoft Windows. Unlike its competitor, the program is available free of charge and offers a new approach to computing. The Linux User Group of the University of Sherbrooke (GULUS) will offer entrepreneurs, students and the general public, today, a Linux Festival where they can discover why Linux and free software are shaking up the established order while revolutionizing technologies. Linux, having become the standard-bearer of a revolution undertaken 10 years ago, is a must-see due to its reputation for reliability, robustness and stability. The GULUS has given itself the mission of making Linux and its possibilities known for the region. The Festival will therefore offer two conferences, the first intended for businesses from 1:30 p.m. to 2:30 p.m. and the second on Linux in education from 3 p.m. to 4 p.m. In addition to the conferences, GULUS will install Linux on the computers of people interested in getting it. For more details, just visit the website at www.gulus.org.

## ###ARTICLE\_START### ID:350

Has Apple's ULTIMATE offensive against Microsoft's dominance in personal computing begun? Steve Jobs, the manufacturer's CEO, in any case began his traditional "sermon" in front of thousands of fans, gathered in Paris on Tuesday, September 10, at the opening of the Apple Expo, by screening his new advertising campaign, called "Switchers". It shows testimonies from users of Microsoft's Windows operating system complaining about their machine crashing or the complexity of using video or music editing software, and rejoicing in the new world they have just discovered by buying a Mac. "The time has come to evangelize the users of the PC world. Even if they use a Windows computer at work, they can have a Mac at home," explains Mr. Jobs. However, there are always two ways of talking about the computer manufacturer Apple. That of its aficionados, who resist Microsoft's hegemony over the world of personal computing against all odds. And that of its detractors, who mock the crazy attempt to develop machines, an operating system and software for a tiny minority of computer users. Talking about Apple's strategy and its results without being immediately classified in one of these two categories is a challenge. still insufficient If we try to stick to the facts, we can point out that Apple's global market share has not managed to rise above 3% or 4% for many years. In the general public, these figures are nevertheless much higher, with a market share of 20% to 25% in certain countries, including the United States and France, and a strong presence in the publishing, graphics, music and film sectors. It is also worth mentioning the drop in its results ($32 million, or €32.82 million, in the last quarter, a 50% drop), but in a context of crisis, the company remains one of the only ones, along with Dell, to continue to make money on the personal computer market. Mr. Jobs also recalled that his company held "$4.3 billion in cash" and that some of its competitors would not survive the crisis. The fact remains that Apple is not managing to get out of its niche. The range of hardware has been renovated and is clearly distinguished from its competitors' products (a new flat-screen iMac, an eMac for education, iBook laptops). Apple has just launched a much more advanced version of its new OSX operating system, with a Unix architecture (free software) and a series of new free software to take advantage of digital devices (camera, photo camera, MP3 player, DVD). But all this still seems insufficient in the face of the absolute domination of the "Wintel" world (Windows operating system and Intel microprocessors) adopted by all other manufacturers. Worse, even Apple fans are not always there to support the company's innovations: the new OSX operating system, launched two years ago, has only been adopted by 20% of users. Mr. Jobs seems determined to do battle once again. His collaboration with Microsoft, which had participated in Apple's rescue plan in 1997, but which sold its stake in the capital a few months ago, has made it possible to multiply the bridges between the two worlds. Microsoft Office (Word, Excel, Powerpoint) is available for OSX and Microsoft's Internet Explorer browser is installed as standard on its machines. Mr. Jobs now wants to take advantage of this new compatibility to convert Windows users, at the risk of increasingly irritating Microsoft. The launch of its iPod MP3 music player for Windows is an illustration of this.

## ###ARTICLE\_START### ID:351

Ars Electronica, the oldest digital culture festival, is no stranger to contradictions. The theme of the 2002 edition, which began on Saturday, was unplugged. The Austrian event is delighted with the advances in "mixed" reality or 3D images generated by body movements, while also looking at the forgotten continent of the information society, Africa; when technobeats are surprised to discover an "unplugged" culture, they lend themselves at best to laughter by presenting rap concerts, fashion, crafts and out-of-place videos. The festival, with a budget of 1.6 million euros (1), assumes its role, with this clever mix of conferences, models, Net art and interactive installations, which has become its trademark. Not to mention the nights that mix Japanese noise and electronica, dance and big popular gatherings (90,000 spectators attended the opening). Borderline megalomaniac. By playing too much on its contradictions, Ars Electronica could well trip itself up. Packed rooms, barely visible shows, installations on the verge of disconnection (the very beautiful Visitor: Living by Numbers, by the Canadian Luc Courchesne, a 360° cinematic vision that the spectator guides with voice and gesture, runs in slow motion when it doesn't crash). And the borderline megalomaniacal excess of certain projects, such as Body Movies, by Rafael Lozano-Hemmer (2002 Ars Electronica prize for interactive art): projected onto the 1,200 m2 façade of the Linz town hall, photos of passers-by in Rotterdam and Madrid are revealed to "real" passers-by who cover them with their shadow. Children love it, but why call a white tarpaulin that only comes to life at night "relational architecture"? Above all, how can we justify the debates on the exclusion of the information society in the face of such pharaonic projects (120,000 euros)? And how can we reconcile the speech of Aminata Traoré, former Minister of Culture of Mali ("I exclude the word development from my vocabulary; may the North stop confiscating information"), with the project of Jaut and Ranzenbacher, Klimatconverter, a 100 m2 room where the climate varies every ten minutes (by mixing real and imaginary data) which requires 120,000 W to reach 45 °C and 100% humidity? Fortunately for festival-goers, Ars Electronica, with its Austrian flaws (faith in technology is praised here, the future is a societal project), also reflects the state of online creation, in line with the subtitle of the event: "Art, stage of global conflicts". The American essayist Jeremy Rifkin, who opened the symposium on Sunday, urged creators to find a way to "advance cultural diversity". This is a cultural organization as powerful as that of international trade, the only way to fight against the majors, the Microsofts who privatize knowledge. Kingdom of Piracy (www.aec.at/kop) is the project that responds to this imprecation: if Shu Lea Cheang was excluded from the discussion, she made up for it in the evening during a debate in the "kitchen" of the electrolobby, bringing together artists and agitators of the Net, of this "kingdom of piracy". Misappropriation. Born in the summer of 2001 as a free technical platform for artists in Taiwan, the site was "dropped" by the local sponsor, frightened by the content of the projects. Pure Net art, smelling good of the misappropriation of network codes. Ubermorgen offers, for example, to hack the site of your choice, starting from the principle that hacking should be accessible to the greatest number. The debate launched in Linz by Kingdom Piracy, on the end of copyright, was serious, a bit utopian, but corresponded to a widespread practice: millions of people exchange music in MP3 format every day. The proof is in the image, with the site Ministasking (www.minitasking.com) of the German duo Schoenerwissen. The requests of Internet users on Gnutella (one of the successors of Napster in open source) are visualized by colored bubbles, floating song titles. The question of a free network, organized on the values of this technoculture, is at the center of some of the most interesting sites and installations in Linz. As at the Documenta in Kassel, the artists here are preoccupied with politics and globalization. The result is a maelstrom of distanced and animated representations that put their finger on the sore spot, making full use of the aesthetics of networks: Josh On proposes They Rule, a graphic exploration of the connections between world leaders (www.theyrule.net, Net Excellence Prize, Libération, February 22). Mark Napier has concocted a flag editor, open to contributions, to imagine that of the Net (net.flag: www.potatoland.org/pl.htm). And economic models are diverted to imagine the world in 2089, if rich countries eliminated their debt (www.logicaland.net, Net Vision Prize). In this agitated landscape of digital creation, the Japanese stand out for their high poetic content. As if, too happy to free themselves from American influence since the shaking of the American Empire on September 11, they were rediscovering their ancestral culture, updated via new technologies. Motoshi Chikamori revisits our everyday objects with Tool's Life: by touching them with his finger, their shadow takes liberties, ants run towards the sugar bowl, a woman sways her hips in a cutout of the Cyclops bottle opener, one eye perched on a body of wires and cables. Shunji Yamanaka gives a remarkable performance for his first appearance in Europe: his humanoid has a truly fascinating way of watching you move, of tilting its head when you tilt yours. Techno artifacts. In another register, the Japanese troupe 66b/cell takes the opposite approach to the principles of "augmented" shows: the seven dancers of Test-Patches, on Monday evening, were equipped with sensors on their feet, hands, and backs. But these techno artifacts, triggering images and sounds on giant screens and on the dancers' bodies, were not at the heart of the performance. No color but black and white, simple geometric shapes, body-to-body games between the dancer and the image. "It's a kind of reference to old media, silent films and black and white," explains Maria Adriana Verdaasdonk (the only American in the Tokyo troupe). Alternating between sketches of near silence, mime, break-dance, butoh and frantic races with shadows, Test-Patches did not thrill the audience at Ars Electronica, who were more fascinated by Atau Tanaka's networked performances. However, it is when technology becomes light and transparent that its charm works. (1) The annual budget of the Ars Electronica Center (AEC), the Museum of the Future in Linz, which includes the festival, the exhibitions launched at the same time at the AEC, the Future Lab's research and the operating budgets, is around 6.6 million euros. (special correspondent in Linz)

## ###ARTICLE\_START### ID:352

Creation of intelligent summaries, increased integration of search engine syntax, monitoring tool, redefinition and customization of search categories. Copernic developers have clearly listened to users with the introduction of this new incarnation of the most well-known Quebec software package on the planet. A brilliant success, with, however, one or two small drawbacks. So little, so little! Copernic Agent 6, in this new version and particularly in its professional version, is likely to interest a new category of users: monitoring and research specialists. Indeed, the new features present only in the pro version will titillate more than one. Rest assured, the good old generalist Copernic intended for the general public remains, even if this version has also undergone a complete revamp. From the first glance, when launching the application, we notice that the user interface has been dusted off. Nothing dramatic, current users of Copernic 2001 will not feel disoriented. But, upon closer inspection, we see that it is a little clearer, despite the new features. All the icons and drop-down menus are in their place, the search category interface has been intelligently revised, no need to search from noon to two in the afternoon to find something. The marriage between the Windows XP interface and that of Copernic is impeccable. And what about the integration with Microsoft's Internet Explorer browser? Exemplary in every way. Copernic's tools are all integrated directly into a new toolbar in IE. Some will like it, others won't, but there's nothing to say about this merger of Microsoft's browser and Copernic. Obviously, we would have liked to see the same integration with Mozilla. Unfortunately, nothing is planned in the short term yet, although Martin Bouchard, the founding president of Copernic, tells me that a merger with Mozilla is currently being considered. But having a nice butt to show your users is not enough, you also need to be smart, and Copernic has plenty of that. In the past, I had always deplored the lack of flexibility in the search categories window. The number of engines available was abundant, of course, but to create your own personal category, well, sorry, nothing to do. Finally, Copernic listened to its users, and it is now possible to create many personal categories by grouping search engines from very different sectors. For example, let's imagine a manic collector of toy figurines. In addition to his intensive web searches, he also wants to use the same query to search the depths of the eBay online auction site, to perhaps find the rare item missing from his collection. With this version of Copernic, he will now be able to create his own search category by combining a few search engines like Google, Teoma and Altavista, with, in addition, that of the eBay site. Search specialists will tell you: querying a search engine is all well and good, but knowing its syntax and knowing how to use the various specialized operators means ensuring that you only find the right information, while eliminating the noise caused by viewing irrelevant occurrences. The "filters" section in Copernic now allows you to refine a search, to ensure that only the right information is revealed. A wish A small criticism of the Copernic developers, however, and a wish already expressed, which I would like to see realized in a future version of Copernic. Although for the vast majority of the public the search engines and categories offered by the Quebec firm are more than sufficient, it seems to me, in my not very humble opinion, that Copernic should make available to everyone a search engine development kit (SDK) allowing anyone who wants to "program" a search interface for a particular site. For example, someone could decide to program an interface to query the Devoir engine, while taking advantage of its syntax. This module could then be offered to the community. At a time when more and more software, proprietary or open source, is opening up to open standards by publishing this "development kit", Copernic could thus create a standard. In the same way as Photoshop extension modules, for example. In short, one can always dream. I am sure that many professionals in research and monitoring, as well as the general public, would welcome the implementation of such a set of Copernic extension module development modules. Analysis Previous versions of Copernic have accustomed us to validating the occurrences resulting from a search query, that is to say, eliminating links leading to pages that have disappeared from the meanders of the web. However, once the first search is completed, in addition to filtering and validating links, Copernic allows us to go even further in displaying relevant and valid results. Indeed, the advanced analysis tool takes the search results and manipulates them even more. With a simple click of the mouse, it is possible to validate links, detect the language of the page in question and display it in the results window, display the creation and modification dates of the pages, eliminate pages that do not contain certain keywords while extracting the concepts of the selected pages and create a summary in a number of words predefined by the user. A very good move on the part of Copernic, which thus integrates the technology of its Summerizer software package with that of Copernic Agent Pro. Do not expect, however, a perfect summary, Summerizer's technology has its limits. But, in the vast majority of cases, the summary proposed is very close to the complete text. For those who monitor their competitors, or those who "monitor" several sites on a given subject, Copernic's monitoring functions will be more than sufficient. However, do not believe that Copernic can replace the best monitoring and interpretation tool there is: the human. Copernic does not have this pretension. But for a small business, a self-employed person, or someone in communications or strategy, Copernic Pro brings added value to search queries. Let's say I'm a specialist in breeding cockchafers in South Antarctica, a highly specialized subject if ever there was one. Once my search query is created and my results are displayed, I want it to be repeatable day after day and for me to be notified by email of any changes to a page, or the appearance of a new site on the subject. I can thus quickly program (a big word, the interface being very clear) such a request. Would I rather have a weekly search? With link validation and a summary? Copernic gives me all the flexibility I need to have this type of monitoring. The personal and professional versions also offer us the possibility of annotating each of the results and creating folders and subfolders: practical when we have several clients or different subjects and we don't want to mix the queries. Even though I have integrated the new version of Sherlock 3 into Jaguar, a similar tool but less powerful and less flexible than Copernic, I am obliged to disappoint you, Apple lovers who are drooling with envy over this new version from this firm from the beautiful capital. Precisely because Sherlock exists, Copernic will not invest a penny in a new version with a Macintosh flavor. Unless you use an emulator like Virtual PC, the solitary pleasures of Copernic are denied to you. But, for those who toil under Windows, Copernic Agent 6 still aims to be the best metasearch engine currently available. We can obviously dream of seeing the few wishes expressed above come true one day, but already, in its current version, Copernic meets the needs of the vast majority of users who want to find the needle in this big haystack that is the Web. All versions of Copernic Agent 6 are now available in French, English, German and Spanish. mdumais@ledevoir.com

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Buenos Aires, correspondence. Behind the windows of the two dilapidated buses, the landscape of devastated Argentina passes by: shanty towns, abandoned factories, avenues that are broken up or flooded. Soon, the road is blocked by "piqueteros", a scene that is now traditional in the country. These unemployed people, from the most disadvantaged suburbs, have their ritual: smoking tires on the road, scarves over their noses, symbolic picket in hand. On the buses, activists from Attac, the Global Resistance Movement of Barcelona, a collective of artists, mostly Argentinians, have come to meet them in Almirante Brown, a town near Buenos Aires ravaged by the crisis. Since Thursday, they have been participating in the World Social Forum, which brings together 400 NGOs and 500 foreign delegations in the Argentine capital. The rally began with a demonstration of 10,000 people, in the presence of the 1980 Nobel Peace Prize winner, the Argentinian Adolfo Pérez Esquivel. "Laboratory." The Social Forum buses stop near a large vacant lot lined with trees. In the center, some 300 people sit on the grass in the sun, a table covered with bread, pastries, radishes. Off to one side, two steaming pots simmering a guiso (stew). "Many Argentinians say that we upset the good people more than the government," laments Raul, one of the piqueteros, father of two young children. "But without work, you can't strike. So we cut the roads." The activists have come to discuss "new political practices in the Argentine rebellion." Their meeting with the piqueteros is organized by Intergalactica, a network coordinating the exchange of experiences of resistance to globalization. Launched in Porto Alegre last year, it now has members in Argentina, France, Italy and Spain. "Argentina has been a laboratory for neoliberalism," observes Sol, 24, a member of Attac and Intergalactica who says she is "soon to graduate in sociology and soon to be unemployed." "The whole world must be aware of the consequences of this model: hunger, injustice, unemployment, a devastated country." The piqueteros do not just protest. They form cooperatives. Here, a bakery and a community vegetable garden where a hundred people work slowly. Elsewhere, others produce bricks by recycling garbage, sell recovered plastic or cardboard, launch sewing, screen printing and ceramics workshops. These are faltering, experimental actions, but they are germinating everywhere. Tomorrow, they can consolidate, like the barter clubs that now exist throughout the country (Libération, August 22, 2002). "Unity." Coming to meet them, Marcelo, a Brazilian from the Softwarelibre movement, advocates the use of free software, developed by volunteers throughout the world, "because economic and political domination is based on technological domination." Twenty-five million people throughout the world already use programs created by 250,000 independent workers free of charge, he argues. Max, in his forties, comes from South Africa. He belongs to the Anti-Eviction movement, which defends squatters and fights against social discrimination. He is smiling and determined: "When people are dying of hunger, we must act. There is no point in waiting for elections and laying down our arms. Ours are unity, mass mobilizations, international solidarity." Max makes a splash with a Zulu dance and song “to cheer everyone up.” Then it’s time for fraternization, with a stew on the grass. Rodolfo, 26, a visual artist, presents a shield from “La Fabrica,” a Buenos Aires factory revived by a workers’ cooperative where aluminum production and cultural activities coexist. Then he brandishes a bar of dynamite. People look at each other, incredulous. The firecracker releases a leaflet, the piqueteros their bursts of laughter. Less alone. When the buses leave, Sol exults: “These piqueteros demonstrate that Argentina is not only a model of the effects of neoliberalism, but also an example of resistance against this scourge.” The unemployed of Almirante Brown now know that from Spain to South Africa, people believe like them that another world is possible. They probably feel less alone. And they sold all their bread.

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A Mac OS X that runs on an AMD or Intel processor? Quite possible, if we are to believe the conclusions of an American study published by Andrew Neff of the Bear Stearns firm. According to this study, within 18 months, Apple would no longer use Motorola's G4 chips and would instead develop an alliance with a microprocessor manufacturer with the x86 standard such as AMD or Intel. Suffice to say that Uncle Bill's worst nightmares would be real. Mac OS X ported to the x86 platform? A dream that many Apple aficionados would like to see come true. It must be said that, unlike the previous operating system, Mac OS 9, which was highly proprietary and closely linked to Power PC chips, the heart of Mac OS X beats wildly to the rhythm of Unix. However, the great particularity of Apple's Unix is that it can be adapted to practically all hardware platforms, in addition to having a kernel in open source code. For example, Linux, which is the most popular flavor of Unix, is available on almost all chips, from the less powerful ones that have found their way into small personal digital assistants (PDAs) to the computer monsters with astonishing computing power. Not much It would therefore not take much for the Mac OS X/AMD combination to become a reality. And who knows if it is not already? Indeed, in addition to Andrew Neff's study and the relatively easy porting of Mac OS X, news from the sites MacOSRumours and OSOpinions, a few months ago, informed us that video card manufacturers ATI and nVidia would be developing drivers for their products for a possible x86-style MAC OS X. But from there to concluding that Mac OS X could run on all existing PCs, there is a whole chasm. That Apple, surely, will not cross. The sale of hardware brings in a lot of money for the Holy Apple company. Far too much to leave these more than interesting profits to the manufacturers of PC clones. It is indeed more likely that the possible future PCs that can run Mac OS X will bear the Apple seal. All this to maintain this consistency between hardware and software that has made Apple's reputation. The gigahertz war At the heart of this possible technological change, the war of numbers that the two enemy clans are waging: on one side, the x86 chips that already run at 2.4 gigahertz and are aiming for 4 gigahertz soon, on the other, the Motorola G4 chips that, despite their nice performances, are lagging behind in people's perception when comparing the two worlds. However, on the Motorola side, a company that has lost its former luster over the years, there is no reason to hope for the release of chips with speeds equivalent to Intel/AMD processors, even if the speed in gigahertz is not the only factor on which the performance of a computer platform must be judged. To counter this perception, it is obvious that a technological change could call into question the impression that consumers have of the Macintosh platform. However, Apple will have to fight against a major adversary, in the event of a change, in the person of current developers who have invested time and money in adapting their software packages for Mac OS X. Indeed, the Holy Apple will have to convince these publishers to do more adaptation work to allow their software to run under a possible Mac OS X / x86. Similarly, for peripheral manufacturers, they will have to partially rewrite their drivers. But by definitively standardizing the heart of its computers with the same chips as in PCs, Apple could finally compete on equal terms for prices and the latest peripherals with the Wintel alliance. And offer consumers a product that, in my humble opinion, is superior to the Windows operating system (oh! the friends I'm going to make). All this must obviously haunt Uncle Billou's sleep. Let's not believe that a future Mac/x86 will restore the dominance of the Windows operating system, but, despite everything, a turbocharged Mac with an Intel chip and able to use Windows XP and Mac OS X indifferently will surely annoy many consumers and companies. And once we try the Mac OS X Bi-Mac To combat the perception of the Mac's lack of power and also to satisfy mid- and high-end users who always run on maximum power, Apple is introducing new G4s, all of which have the main characteristic of having two processors. Indeed, since its introduction, Mac OS X has been using the two processors of the central unit without any difficulty to ensure that power maniacs who shoot themselves in Photoshop every morning always have optimal performance. Available in a brand new livery on the Apple website starting at $2699 CAD, and with a choice of video cards from ATI and nVidia, these new dual-processor G4s will satisfy pure power obsessives. By the way, a little note to Apple friends: I wonder why the English pages of the Canadian Apple site (apple.ca), as well as the French pages of Apple France (apple.fr) are up to date with regard to the presentation of the new PowerMac G4s, while the French pages of the Canadian Apple site are still not, offering only the characteristics of the old models. Not very respectful of the customer. And don't tell me it's in translation, when the Apple France site already presents the new Mac in the language of Molière. It smells like Toronto. www.apple.ca Zip 750 Long considered a darling of mass media with its Zip and Jaz peripherals, Iomega has experienced a certain decline with the dizzying drop in prices of CD and now DVD burners. However, for those who still appreciate the convenience of small cartridges, Iomega has just introduced a third incarnation of its popular Zip reader: the Zip 750. Not denying its older brothers, the Zip 750 can read, in addition to the old 100 and 250 megabyte cartridges, the brand new ones in, you probably guessed it, 750 megabyte format. www.iomega.com

## ###ARTICLE\_START### ID:355

If the Internet, as we know it today, has been able to experience such growth and democratization, it is largely thanks to standards and norms that are very open and accessible to all. The future of the Internet and computing continues to depend on these standards. However, there is an immense danger when companies decide to take these rules and dress them up in proprietary packaging. Regularly, I receive emails asking me why, between Microsoft and me, it is not love at first sight. And yet. If you knew how, on the contrary, I find some Microsoft products almost perfect. However, I have something against the Redmond firm because of the way it seizes open standards to transform them into proprietary standards that only work on a single platform, namely, Windows. And that is why I have a weakness for software packages using open standards. The real challenge today is not whether to use open-source or proprietary software, but whether these software programs will comply with open and accessible standards and not just proprietary standards. The Internet, and much of computing, was built on open standards. If an application like email is so universal today, it is because the designers of the SMTP (simple mail transfer protocol) and POP (post office protocol) standards made them available to everyone. In doing so, any programmer or software company could take these standards and offer Internet users client software with either very simplistic features or other features that turn this software package into a gas factory. But, always, the Internet user has the choice of software package and, whatever his choice, he has the assurance that his email client software will be able to communicate with another without any problem. This is how software as different as Outlook and Eudora can talk to each other and exchange information with almost no difficulty. The misappropriation of Java However, a danger threatens Internet users and, by the same token, the Internet and IT: it is the appropriation of certain standards by companies that adapt them and make them proprietary and usable only by their software packages. The best example of this is the misappropriation of Java by Microsoft a few years ago. When Sun launched the Java language, one of its great qualities was that the applications generated worked on all platforms: Macintosh, Windows, Unix and small embedded systems. For example, during the great all-in-Java craze that followed its launch, I remember that Corel was working on adapting its Word Perfect software entirely in Java. The first alpha and beta versions, although heavy, very heavy, worked indifferently on Windows and Macintosh. Java is universal. However, Microsoft, for its part, did as it pleased, and took this all-terrain Java to make a version containing certain new features that only worked under Windows, which went against one of the main foundations of Java, namely its universality. Fortunately, a few short visits by both parties to a federal court settled the problem: no more Windows-style Java, this language is and must remain universal. In short, Java is once again a standard. Microsoft, for its part, has decided to abandon the inclusion of Java in future versions of its Windows operating system. Similarly, for simple text editors, applications common to all computer users, I like to dream of using a standard file that is unanimously accepted by all producers. Instead of a proprietary .doc (Word) or .wpd (Word Perfect) format, let's assume that all word processing software packages use the same file format (which could be xml for example) that allows for true interchangeability of documents. Whether you are on a Mac or a PC, whether you use Windows or Linux, a gas factory like Word or Star Office or a very small software package (powerful despite appearances) like Appleworks, there is no need to worry about their compatibility with another software package. You choose the software that suits you, with the features that you like, knowing that the files generated by it can be read by all the others. On the Internet, standards and norms are just as important. How many times have you come across a site where the home page didn't look great because it had been optimized for either Netscape 4.xx or Internet Explorer, or for Mac or Windows, each of the two browsers containing small proprietary codes. The arrival of Mozilla, the open-source browser, available on all platforms, may change that a little. Indeed, more and more developers are adopting it as a reference tool because Mozilla, unlike the others, strictly adheres to established standards, a real guarantee of compliance, regardless of the browser used subsequently for viewing. Incompatibility? But, contrary to what one might believe, proprietary software and open standards are not necessarily incompatible, the best example being the Flash animations that can be seen on the Internet. Macromedia, the publisher of the Flash software package, has decided, in a gesture that does it credit, to open the Flash standard and make it accessible to all. An honorable gesture, yes, but also a fabulous marketing move. Today, Flash is the standard for animation on the Internet. To produce these, producers have the choice of investing in hyper-powerful software like the Flash authoring software, or in a simple little shareware like Swisch. Whichever one you use, you will have at least one assurance, that your productions can be read by everyone. Which shows that proprietary software using an open standard can also be a commercial success. Even in e-commerce, the use of standards can promote its growth. For example, a Quebec firm like Dynec has succeeded in connecting the powerful computers (mainframes) of large clients with those of small suppliers using open standards, EDI (electronic data interchange) and SMTP. This is how a small business owner using a tiny personal computer can exchange directly and simply with the large computers of companies like Costco, Wal-Mart, Rona, Loblaws or Sears. In short, you will have understood that the real challenge at present is not to know whether a particular software package is open source or proprietary, but rather to know whether it works by integrating open standards that guarantee its interoperability. If the Internet today offers such a biodiversity of content and applications, it is because everything was built on open standards. Recent rumors that Microsoft is taking over certain standards to adapt them to Windows (MS-TCP) - thus leaving behind users of other operating systems - are cause for concern. We must be extremely vigilant to ensure that this does not happen. Our governments have a responsibility to ensure that their systems operate according to open standards. Because once these are implemented, it would be very unpleasant to realize that a company can hold a government hostage by closed standards.

## ###ARTICLE\_START### ID:356

Instantly moving from one corner of the planet to another is one of the pleasures of the Web, when you simply want to have fun. This week, we're talking about skyscrapers and aerial views. Some time ago, I noted on the Pssst site (1) the address of a site on skyscrapers (2) where they even offer the profile of the tallest buildings in Quebec City, which is not full of high-rise buildings. The site's home page is not great, but don't let that stop you from judging its quality. Click on the Diagrams link that you'll see just below the home page logo. You'll then get an index page from which you can easily organize your travels in the world of skyscrapers, which are classified by country and region of the world. When you've found the profile of Quebec City and then taken a look at those of the other cities that interest you, go back to the index and find the Building Types section. Surprise! Despite its name, the site is not only interested in skyscrapers but also in sports stadiums, religious buildings, hotels, government buildings, even ships and so on! When you take a look at the skyscrapers, you will sometimes be surprised to see drawings of buildings that do not exist. For example, in the observatories category, the CN Tower in Toronto is overtaken by the New York TV Tower, which is still only a project. From the home page of the skyscraper site, I discovered another site, the aerial photos site (3). The word aerial should be understood here in the broad sense since, for the city of Quebec, we see a photo taken at the top of the daredevil staircase and a fairly traditional view of the Château Frontenac. But we can also see a real aerial view of Quebec in winter, with the frozen river (4). The site contains more than 7000 photos that are of uneven quality. But the patience of searching and the joy of finding are part of the daily life of the Internet user, aren't they? Mozilla, Opera: reactions Several readers reacted to last week's column in which I praised the qualities of two Web browsers, Mozilla and Opera. Regarding Opera (5), I was criticized for not having indicated that this software imposes an advertising banner on its users and, wrote one of my correspondents, that it "makes me lose part of my screen". You have the choice: accept this advertising which is added to that contained by the sites you visit, or pay to acquire the software which then becomes ad-free and "gives you back" your entire screen. An Opera license costs US$39 (US$20 for students) and can be purchased online by credit card. Personally, the constraints of the free version do not bother me. Mozilla (6) can also be an alternative solution, rather than acquiring an Opera license. Mozilla is only available in a free version. Another reader asks me how to use the function of this browser that allows you to open a Web page in a new tab, in the same window of your browser. With Windows, by clicking on the link leading to the page that you want to display in a new tab, use the right button and, in the context menu that appears, choose the option open link in new tab. With Macintosh, by clicking on the link, hold down the mouse button; the context menu appears and you only have to select open link in new tab When you use the display of several pages in the same window, with Mozilla, an X appears on the right, at the same height as the tabs that allow you to move from one page to another. This X allows you to permanently close the page that is displayed. Finally, you can use the Bookmarks menu to create a bookmark that will call the group of pages gathered in your browser window. Another reader is telling me off for not taking the opportunity, when talking about Mozilla, to introduce the GNU project and to elaborate on the Linux operating system in particular and the development of free open-source software in general. This column is not about computers but about the Internet. That said, I am rather sympathetic to this movement which seeks to counterbalance the big commercial players and, in particular, the invasive presence of Microsoft. For readers who want to take their quest for information on this subject further, I suggest a visit to the GNU site (7), and to the section devoted to open-source software of the excellent European site (8) ETIC dans le Web (Educating in Information and Communication Technologies). (1) http://www.pssst.qc.ca (2) http://www.skyscraperpage.com (3) http://www.worldcityphotos.org/ (4) http://www.worldcityphotos.org/C/CAN-QB QuebecCity-NatlGeographic1.jpg (5) http://www.opera.com (6) http://www.mozilla.org (7) http://www.gnu.org/home.fr.html (8)http://www.funoc.be/etic/ doss003/ art007.html BOOKMARKS The Tour de France While not comparable in quality to the World Cup soccer website, the 2002 Tour de France website (1) is still interesting. You will find live race progress, daily video interviews with the winner of the day's race, and analyses. The site also provides a lot of information on the route, weather, and a section on the history of the Tour. Webby Awards In June, the Webby Awards were presented in the United States, which are considered the Oscars of the Web. The winning sites are almost all American and very well-known names, such as Google and Yahoo, are on the list. See the list of winners (2) and see how the jury's choice and the public's choice sometimes coincide, but not always! Saint-Augustin When you take care of a Web site, you should not minimize the resourcefulness of Internet users. With the merger of the cities of the former Communauté urbaine de Québec, the sites of the former cities were closed. For example, if you type www.ville.sainte-foy.qc.ca , you are automatically redirected to the site of the new large city of Quebec (which is excellent, by the way). The same thing happens if you type in the address of the old town of Saint-Augustin (www.st-augustin. org/) but, a reader tells me, you can still consult the Saint-Augustin site if you know the specific address of its old home page (3). Let's bet that this situation will be corrected soon! (1) http://www.letour.fr/ (2) http://www.webbyawards.com/main/webby\_awards/nominees.html (3) http://www.st-augustin.org/simindex.html Continue to send me your comments or suggestions at AForgues@lesoleil.com or through the site http://www.Forgues.net. AForgues@lesoleil.com

## ###ARTICLE\_START### ID:357

The education sector is buzzing. Starting July 31, Microsoft will introduce new licenses for its software, including the Office suite. For some school boards, the upgrade will be worth it, while for others, solutions from the free software sector will be the only way out. The education sector, which is severely taxed while its budgets are melting like snow in the sun, is reacting strongly to the introduction of Microsoft's new licenses. It was Éric Brunelle, the president of Druide, who, in his response to the possible release of a Star Office integration module for its Antidote grammar suite, gave us a heads-up: "Our customers' demand has been growing since the beginning of the year for the integration of Antidote into Star Office, particularly in the education sector, which is looking with apprehension at Microsoft's new licensing policies." The greatest number Clément Laberge, one of the organizers of RIMA 2002 (International Meetings of Multimedia Learning), creator of the Infobourg site, and one of the gurus of the field, confirms the interest of the world of education for options comparable to the Microsoft office suite. "This is not a question of denigrating this or that product, or of specifically attacking Microsoft. The sector, with all the budgetary constraints it has been facing for several years, wants to ensure that it has a quality product at the lowest cost. Microsoft produces excellent software, but if a school board can obtain a comparable office suite for less - and thus devote a greater part of its precious budget to educational software - it is obvious that it must examine all the options offered on the market. IT managers want to be in compliance, they have no choice. But they also want to obtain the greatest number of products truly dedicated to the educational sector. Because of these budgetary constraints, choices will have to be made, and this is why software offered at low cost, or from free software, is so tempting." David Lamoureux, technical advisor at the Pointe-de-l'Île school board, confirms this trend: "Previously, Microsoft's education licenses allowed us to install an office suite on two computers, as long as they were not used simultaneously. However, with the upcoming changes, each of the school board's computers, and especially those intended for classes, will have to have a unique license." With their limited budgets, the Pointe-de-l'Île school board's managers and technical advisors therefore seriously examined replacement solutions, and they came to the conclusion that the Star Office / Open Office office suite could be a very acceptable alternative. Mr. Lamoureux said, "we have therefore suggested to the heads of each school this new option, that is to say the StarOffice 5.2 suite. More than 60% of our schools have therefore decided to take the leap and not renew their MS Office license. We are waiting for official confirmation from Sun that the StarOffice 6.0 suite will also be free for the education sector. In doing so, schools will be offered this new office suite which, it must be said, is just as valid as the Microsoft Office suite, while being free." Moreover, free software is starting to take its place more and more in the education sector. For example, Mr. Lamoureux points out, "we offer our teachers, on a Web site intended for them, many software packages from the free software sector that are just as powerful as their proprietary counterparts. We have no choice but to examine other solutions, it's a question of budget. But in addition, when these are free and just as powerful." And the business community? But the choices that the education community is facing, the business community will also have to face them. Many small business leaders are considering investing in less expensive solutions to compensate for the high cost of software. For example, at Druide, the Star Office option is also being examined very closely: "For use in business, we are very interested in investing in a less expensive suite," says its president. MS Office currently costs $700 per workstation [plus upgrade costs], and its remarkable power is not necessary for everyone." Personally, we believe that Microsoft will have to review its licensing policies and especially its pricing policy very quickly, with the introduction of a product as competitive as Star Office/Open Office. MS Office is an excellent product, there is nothing to say about it. It is when comparing it with other software packages that are almost as efficient that the problem lies. How can we justify today, in a world where budgets are so tight, the acquisition of an Office suite at a cost of several hundred dollars when other comparable software is offered at such a low price, or better, for free. Microsoft MS Office www.microsoft.com/office Star Office 6.0 www.sun.com/staroffice Star Office francophone www.staroffice-fr.com Open Office www.openoffice.com Open Office francophone www.openoffice-fr.org Druide/Antidote www.druide.com Pointe-de-l'Île School Board - Resources for teachers http://recit.cspi.qc.ca/ressource/logiciels.htm A file on the cost of software in the education sector http://carrefour-education.telequebec.qc.ca/ fichiers\_HTML/dossiers/couts1/index.html RIMA 2002 www.rima2002.org/ Infobourg www.infobourg.qc.ca The author's blog www.micheldumais.com mdumais@ledevoir.com

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The last high mass of the developers of the Holy Apple saw the reverend father Steve iJobs himself come to present the next update of the Mac OS X operating system. Answering to the sweet code name of Jaguar, and promised for the beginning of the fall, this update will be much more than a simple assembly of patches. On the menu: new applications, an improved Sherlock and performances to match for those who have the appropriate hardware. After a few small evolutions over the last year, intended to fulfill promises made at its launch, Mac OS X 10.2, planned for the end of this summer, will include more than simple fixes. This is a major update, including many improvements, some of which attack major modules of the operating system. First, the Quartz engine will have been revised and the performances, according to the first impressions of the beta version currently circulating, will be to match. This engine will talk directly with the graphics chips of the new video cards and will abandon the microprocessor that had been taxed excessively more often than not. Life will now be totally in Open GL. Personally, I don't give a damn about knowing that the desktop will be accelerated with Open GL sauce, as long as we can no longer see this anachronism that is a user interface that eats up almost 30% of the computer's power, just to display translucent menus and other funny but completely useless little things. However, to take advantage of the Quartz Extreme engine, disciples will have to be equipped with a computer bearing the seal of Apple containing a latest generation video card and, ideally, 32 megabytes of video memory. Owners of slightly more sluggish Macs, sorry, but QE is not for you. You will see neither improvement nor degradation in performance. Elementary my dear To all those who wonder why the Copernic meta-searcher is no longer available for the Mac, you have the answer with this new version of Sherlock, the Apple meta-searcher. Why should the Quebec firm invest time and money in software when Apple gives it away for free? A question that is just as legitimate as that asked by software publishers when they see that Uncle Bill is integrating a new software package into his operating system. From there to saying, Bill and Steve, same ideas, same fight In short, Sherlock 3 is not a gimmick. The interface has been revised, the search channels multiplied, and finally, no more need for a browser to display the results, Sherlock is now, in this third version, completely autonomous. Make an appointment Who has not spent a few hours raging to try to make two computers connected to a network communicate? As much as sometimes a miracle happens, and everything is done in a few seconds, as much as it often happened to me to tinker at length to allow a few machines to share their resources and make them available to others. Based on the Zeroconf standard, the Mac under OS X 10.2 will have finally reached this maturity: networking, a few clicks and presto! resource sharing. As simple as that. Even with a Unix livery, the Mac is definitely the most user-friendly computer. The same goes for writing on the screen, this great leap backwards that seems to excite most scribblers, the "spinners" of Uncle Bill and his Tablet PC having done a good job. Jaguar integrates a new technology called "Ink" which looks a lot like the one recently presented by Uncle Billou. Honestly? Meh! But, it is simple and user-friendly, I grant you. Jaguar Hates Spam I don't know why the planet cares about the dimensions of my attributes, whether they are virile or not, about my supply of little blue pills, about my personal fortune in Switzerland, about wanting to get me the new easy job where I will have nothing else to do but wait for the real dollars, those of Uncle Sam, to fall into my purse. Thanks, but no thanks. I hate spam, and like Diogenes, I am still looking for the Man who likes to receive spam. While waiting to find this poor guy, the Holy Apple has improved its email software by integrating new technologies based on a semantic engine which, we are assured - yes, yes, yes - are capable of flushing out the forger and eliminating his mercantile prose. Although, in my opinion, it is not at all an improvement of the operating system, let us thank Apple for having thought of all of us, poor mortals, inundated as we are under the ton of these virtual proposals that we like to refuse at the moment by tickling the "delete" key on the keyboard. Personal messaging It seems that personal messaging software is not legion in the world of Apple, because Apple offers its own vision of the thing and calls it iChat. Ridiculous, why does Apple dare to harm the efforts of current developers who proposed their own messaging software? Really, this Steve has a Bill in his nose. Compatible with the AIM (AOL) standard, iChat has the merit of being user-friendly, a word often misused, but which is really true in the case of the vast majority of innovations or improvements proposed by the Cupertino firm. However, the application eagerly awaited by many users is without a doubt the final version of Quicktime 6, one of the very first solutions to take advantage of the MPEG-4 standard. The wait has gone on long enough. In short, for Mac OS X, the introduction of Jaguar at the beginning of the fall will allow Apple to consolidate its lead in the development of these two entities known to be incompatible: user-friendliness and Unix. It must be said again, Apple engineers have done a great job integrating many open-source resources into their operating system, and making it all so easy to use. Jaguar is the update that everyone has been waiting for, a set of improvements to bring Mac OS X to maturity. StarOffice/OpenOffice: a suite Many questions, many answers and also, a lot of hope following last week's column on the StarOffice/OpenOffice office suite. And also some nice emails including one from Éric Brunelle, the president of Druide, the publisher of the Antidote language suite. "Once again, you've come to the right place! We are currently considering integrating Antidote into StarOffice. We are even evaluating the possibility of using StarOffice internally. "Our customers' demand has been growing since the beginning of the year for the integration of Antidote into StarOffice, particularly from the education world, which is looking with apprehension at Microsoft's new licensing policies. We have taken note and are waiting to know Sun's political and technical intentions in the transition to version 6. Namely: 1) will it be expensive? 2) will the API be compatible with version 5.2? The answers we received at the end of May having satisfied us, we are moving on to the next step. Stay tuned, especially on Info-Druide, for developments. "For use, we are very interested in a less expensive suite; even for us, MS Office comes to $700 per seat (plus upgrade costs), and its remarkable power is not necessary for everyone. We do, however, regret the absence of a true Mac Open Office version (we are concerned about the sustainability of the possible OpenOffice version, on the one hand, and we still have a majority of OS 9 users, on the other hand)." - Info-Druide www.druide.com/listes.html Beautiful and good news, right? As for the Mac version of OpenOffice, allow me, my dear André, to reassure you a little by telling you that after having spoken with Open-Office for Mac managers, everything is going very well for them, and that even now, they are working hard to be able to deliver a functional product within six months.

## ###ARTICLE\_START### ID:359

Gone are the days not so long ago when handling a PDA required real human hands. Nowadays, assistants are becoming more refined without giving in to the latest technological discoveries. So, when they are simply beautiful, thanks to an inspired designer, there is no reason to deprive yourself of them. The new Sony Clié (PEG-NR70V) is one of those. A find that is both original and practical: the large backlit screen hidden in its cover lifts up and pivots to return to the chassis facing the user. Its resolution, the best on the market in this category of devices, displays 380 x 480 pixels and 65,536 colors to please those obsessed with nuance. In terms of connectivity, the new-look Clié sits gently on its USB base which allows it to be synchronized with a PC. We will not dwell unnecessarily on the software capabilities of this pocket computer that runs under Palm OS (4.1), which makes it compatible with an infinite number of "open source" programs that can be downloaded online. This hard worker is a complete tool. Its integrated camera has a 300° rotating mini-lens, which professionals required to practice the field from architect to real estate agent will not fail to make the most of. With the help of the sun, pretty women running around the sales will give others, between two videos or a compilation of their best MP3s, ideas not listed in the user manual... Its price: 700 euros.

## ###ARTICLE\_START### ID:360

The name Netscape is closely associated with the incredible rise of the Internet, a rise that the company actually helped create. Netscape and its browser literally called the shots... until the all-powerful Microsoft machine got going, taking advantage of its Windows dominance to distribute its Internet Explorer browser. Slowly but surely, Microsoft began to eat into Netscape Navigator's market share. In just a few years, Microsoft Internet Explorer gave its rival a real knockout. In all fairness, it must be admitted that Netscape also contributed to its misfortunes. The sale of the company to AOL, the numerous delays in producing a version of Navigator under the aegis of the OpenSource movement (community development of source code) and, above all, a version 6 that turned out to be disastrous, so glaring were the technical problems and poor performance, hurt. Netscape is set to launch the new version 7.0 of its browser in the coming weeks. After taking a first look at the software, it seems that Netscape has learned its lessons and could very well be back on track. A sight to behold! In many respects, Netscape seems to be following Microsoft's lead in developing its browser. Thus, Netscape Navigator 7.0 is presented as a collection of modules: Web browser, e-mail, Internet radio "tuner" and even instant messaging with the integration of two flagship software, namely AOL Instant Messenger and ICQ. Netscape goes even further by integrating partner applications that are installed at the same time as the browser, such as Net2Phone (Internet telephony) and Winamp (MP3 music player), as well as links to its own Web services for online shopping (shop@Netscape). Once Netscape Navigator 7.0 is installed, more than half a dozen shortcuts will have been added to the Desktop. This choice is a bit surprising, even irritating. While the many criticisms (and lawsuits!) are encouraging Microsoft to be more modest in the deployment of its applications, Netscape, which has always embodied "the other way", now seems to be imitating the traditional tactics of its old adversary. I even receive unsolicited emails after registering my copy of Navigator... On the performance side, Netscape Navigator 7.0 repairs the blunders of the previous version. The new version integrates the Mozilla 1.0 browser. The latter is an OpenSource "community" achievement that took more than four years to materialize into a tangible product. In any case, Navigator 7.0 benefits greatly from this new engine and therefore offers good performance, particularly with regard to the time required to launch the application. New features Navigator 7.0 includes several new features. At the top of the list is surely tabbed browsing (a concept that the Opera browser had inaugurated). Essentially, this feature allows the user to open new browser windows, which are directly accessible from the current window via a tab that appears under the link bar. With these tabs, switching from one window to another is child's play. The browser also offers a new window (My Sidebar) that provides access, again via the use of tabs, to content providers (news, weather, stock indices, etc.). By choosing the desired tab, the user has access to a brief list of short news items; news that takes the form of hyperlinks pointing to the appropriate Web sites for more detailed information. Another feature that will delight many: Navigator 7.0 not only allows you to directly use the instant messaging applications AOL Instant Messenger and ICQ, but also to manage their various parameters (user status, notifications, authorizations, etc.). It is also worth noting the Web search function that now allows the user to select the search engine of their choice. Finally, the browser offers tools for form management (automatic entry of common information such as name, address, etc.), cookies and even passwords. While some of these modules are rather basic, they are nevertheless much appreciated. In conclusion, despite a few minor irritants, Netscape Navigator 7.0 is a successful version that brilliantly erases the "mistakes" of the last 18 months. Navigator 7.0, at a time when its owner AOL has indicated that it intends to drop Microsoft Internet Explorer from its AOL service, will be able to position itself advantageously against its rival, and this, to the great benefit of the public who thus finds a viable alternative to Microsoft's vision. For more information: channels.netscape.com/ns/browsers/7/ mondouxa@videotron.ca

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The MS Office suite. Indispensable for many and impossible to dislodge from our hard drives? With nearly 94% of the market, one would be inclined to believe so. However, alternatives exist: SmartSuite, WordPerfect. However, a real enemy is looming on the horizon: the StarOffice/OpenOffice suite. In addition to its almost perfect compatibility with MSOffice documents, its more than competitive price, free, will make more than one person think. To say that the MS Office suite is omnipresent on our hard drives is an understatement. Who has not bought or copied this gas factory considered to be Microsoft's cash cow? And a little thought in passing, who really needs the MS Office suite? For the vast majority of users who mainly use the Word text editor to write text by the kilometer with a minimum of formatting, investing several hundred dollars in this suite is, in my humble opinion - an opinion that I give you as a bonus with wild boar ears fried in Uru fat accompanied by a lukewarm beer - a waste of your hard-earned money that you will not have the full and free enjoyment of before June 27, yes, yes, it is not me who says it, but the tax on which no one has yet returned. In addition, it would seem that the next versions of MS Office promise few improvements, if not a change in the license granted to the user or to the company. Whether or not we will rent its software package remains to be seen, but many users and no less many companies are starting to ogle at Sun, and its Star Office 6.0 suite or even its equivalent in free source code, Open Office. StarOffice/OpenOffice, same fight The Star suite, first developed by the German publisher Star, was intended as an alternative to the Windows/MS Office pair. Indeed, it was under Unix/Linux that StarOffice experienced its first hour of glory. However, over the years, Star has been able to design a powerful suite, available for multiple operating systems and in many languages. Since its acquisition by Sun, the StarOffice suite has undergone, in this new incarnation, improvements that put it on a par with the suites of major publishers such as Microsoft, Corel and IBM. And this is largely due to the incessant work of an entire community of volunteers and programmers. Indeed, in a surprising gesture, Sun voluntarily made the source code of version 6.0 available to all. This was all it took for a new community to be created and take over this source code and this is how the OpenOffice project was born, thus proving that the merchants of the temple and the disciples of OpenSource can very well coexist together, each one making the other benefit from its improvements to the source code, a bit like Netscape and Mozilla. MS Word compatibility: 9.5/10 Let's settle this question right away, the compatibility of the text editor, both in reading and writing, is almost perfect. I opened and saved several files originally produced by MS Word, and apart from two files that required a slight touch-up in the typographic attributes, there was no way to find fault with StarOffice. Similarly, a file created by StarOffice, but saved in Word format, is impeccably opened and read by the Microsoft text editor. The work accomplished since version 5.2 of StarOffice is considerable. And the same is true for Excel and PowerPoint files. Question of handling and user interface, in just a few minutes, a Word user will know how to find his way around the drop-down menus and icons, the two software packages being as similar as brothers. But there are also a few small features that go a little further than MS Office. For example, for those who write their thesis, or for students who write their work, it is possible to note and record all of your bibliographical references thanks to the module designed for this purpose. Another little extra, when you choose a font in the drop-down menu, you can see not only its name, but the shape of this font. However, let's admit that StarOffice is not perfect. Word's correction functions are devilishly more effective than those of StarOffice. That's when I found myself dreaming of an Antidote or a Corrector 101 with an integration module with StarOffice. Hello! Does anyone take notes at Druide or Machina Sapiens? In short, we could examine the StarOffice/OpenOffice pair side by side against the MS Office suite and honestly, we would see very little difference. And the price? Currently, for an individual, getting an MS Office suite would cost them many $100 bills. Almost eight to be more precise, and this, for the standard suite. For the professional version, it is rather $900 (prices noted on the Camelot site). Obviously, companies and students pay much less: $319 for the professional "education" version. As for StarOffice, available in 27 different languages, including French, it is $114 (from Dominion) that you have to shell out to have the pleasure of loading on your machine a text editor, a spreadsheet, a presentation software package, a database, an equation editor and a vector drawing software, all of which can be installed on five different machines, whether they run under Windows or Linux. And above all, no restrictive registration module like Windows XP. In addition, and here for school board managers with often tight budgets, all educational institutions have the right to order the StarOffice suite for FREE and install it on as many machines as desired. In short, do you have a fleet of 1,500 computers, both in the classroom and for administration? A single CD-ROM is enough. You can reproduce it and install it as much as you want for free on all your computers. Obviously, if you opt for the open-source version, OpenOffice, the question does not even arise. Free, quite simply. Same thing if you are a small, medium or large company. The only difference between OpenOffice and StarOffice is the Arabas database which is not included with the open-source version. Similarly, if our charming governments decided to order the StarOffice 6.0 version, they would only have to pay around thirty dollars per computer. And once again, for them too, the OpenSource version would be free. I've been looking for negatives, really negatives, for a user, a company or a government to refuse to even consider the StarOffice/OpenOffice suite, but I can't think of any. Challenge this office suite, and you'll see. After all, all you have to lose is the download time. And all you have to gain is $800. - Sun StarOffice www.sun.com/software/star/staroffice n OpenOffice www.openoffice.org OpenOffice for the Mac Let the aficionados of the Holy Apple rest assured. Although Sun has announced that the Macintosh version of StarOffice will never be developed, the OpenOffice community has decided to take matters into its own hands. A Mac OS X version is currently in production. Although very incomplete, the OpenOffice community believes that version 1.0 for Mac OS X should see the light of day in the next six months. Indispensable Catastrophe. The brother-in-law's hard drive has just failed. After the obligatory data recovery using utility suites such as those from Symantec or Ontrack, the operating system must be reinstalled. Re-disaster, the boot disk is gone and the CD-ROM won't restart by itself. Plan for the worst, and stock up on boot disks by going to BootDisk.com. Whether for Linux, for all possible versions of Windows or even for good old DOS, all versions are available for quick download. Indispensable Bootdisk, how many times has it saved my life. - Bootdisk www.bootdisk.com/ mdumais@ledevoir.com technology

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My dear Mario. Do you allow the use of the informal "tu"? Note, it is a great privilege here in Quebec to address our politicians informally. The last person to have this honour was René. Even Mr. Bourassa never had this honour. And yet, you are an almost identical clone. In short, my dear Mario, following your victory last Monday, you told us that the coming months would be an opportunity for you and your team to enrich your party's programme in order to present real choices to the men and women of Quebec. Allow me, in all modesty - this is not the norm - to explain to you what a real vision of a connected and innovative Quebec could be. Right from the start, I must congratulate you. While your website is a model of clarity and simplicity (the link to your program is indicated as soon as we arrive on the home page), those of your friends from the "old parties", although visually pleasing to the eye, do not offer any interactivity with Internet users. You manage to surprise me with the ADQ portal, a "blog" (or a cybernotebook), yes, a "blog" where the entire ADQ community meets and exchanges. Comments, opinions, debates, calendar of activities: we feel that things are moving and dynamic. And above all, your party and its organizers have understood what the Internet medium is. As for the "old parties", shh! let's not wake them up. As our friends from the south say, "the lights are on, but nobody's home". A model connected government Being a model connected government is not just about making a site that "pushes" information to citizens, despite all the relevance of the information currently put online. New technologies allow us to go much further, and many governments around the world have understood that these technologies allow us to save money, while being at the service of the citizen. Do you understand, Mario, how come we can't yet renew our driver's license online? It's beyond me. And this is just one example of services that a model connected government could offer its citizens. Being at the service of the citizen, seems to me that this is the primary mission of a government, right? Look at the federal government and its "online government", and let's give Caesar what belongs to Caesar. You have there a good example, despite several shortcomings, of what a model connected government could be. But you know, Mario, you could take the concept of model government even further. What would you say, in addition to truly serving citizens on the Internet, to using the medium to listen to them like no government has ever been? You have already understood, with your ADQ portal and its blog, that the contribution of the community is essential. Why not take the concept even further with a real permanent forum for democracy where citizens could express themselves on all subjects concerning them? That a few civil servants per ministry could be assigned to respond and exchange with citizens. Admit that this is much better and more participatory than a simple "write to us" at the bottom of a Web page. Especially since we never know if our missive will not end up in the big virtual trash can. And what's more, with a democracy forum, for political staff and ministers, is there a better way to take the pulse of the population and listen to it? In addition, we save on lobbyist fees. Stop Software Blackmail While many governments on this planet give all the credibility they want to the open source software movement, in Quebec, we are still groveling before proprietary software publishers, always ready to submit to their dictates, their restrictive license, as well as their pricing policy. France, Germany, the United Kingdom, China and several other governments have understood that they should start integrating free software into their operations "as much for budgetary and security reasons as for strategic independence". And above all, do not let the technocratic gurus blind you with their techno-jargon by telling you that Open Source harms innovation and that the available software packages are of lower quality. Linux, OpenOffice, Mozilla: the examples of software as powerful as their commercial counterparts are numerous. Even your blog is free source software. Also, don't let them pester you by arguing that there is no money to be made with open-source software. On the contrary, imagine that instead of sending colossal amounts of money to publishers of proprietary source code software, you decide to standardize with open-source software: in addition to saving money, you could afford to give some of the money saved to local companies so that they can adapt this software to your specific needs. In short, you would be putting your citizens to work, and not those from across the borders, and what's more, once the modifications and enhancements have been made to the software packages, the product could be given back to your community. That's OpenSource. And that's innovation. The Multimedia City: Quebec in its entirety Let's not kid ourselves, Mario. Since the bursting of the Internet bubble, companies with crazy business plans, who think of buying designer chairs for $1000 each before even making the first sale, thank God, that is now a thing of the past. A new model is on the horizon for companies working in the NTIC field. "Small is beautiful". But unfortunately, a window has closed, and the projects of Montreal as a NTIC technopole, like Silicon Valley or the Boston region, must be forgotten. The Cité du multimédia, this artificial environment whose occupancy rates would be enough to bankrupt a Rockefeller, had it not been for generous subsidies, has never managed to attract companies from elsewhere. Ubisoft? Ubisoft is not crazy, it is not at all established in the Cité, and its managers are not keen on moving there. All we managed to do with this program was a "major disruption" of businesses that could have very well continued to grow where they were, while creating the same number of jobs or almost. But obviously, politically, it seems very good to come and cut ribbons in beautiful, renovated bricks. If someone had told me that the Cité project was above all a real estate project And it's the same way again for the Cité du commerce électronique: of the 2,600 jobs that were potentially to see the light of day, we will have to put a cross on more than 700 of them. The firm that was supposed to create them, Ideas & Associates, has just laid off its 14 employees less than a month after Jean-Bernard's grand announcement. So what do we do? Concrete and bricks again? Why not be visionary and tell ourselves that in a country where high-speed networks are available in almost all medium-sized cities, the Cité du multimédia would not be the entire province. Let's stop designing everything in concrete, and think about jobs and innovation from the start. A technopole city? No, the country is the technopole, from Gaspé to Rouyn, via Montreal. And let's stop thinking about concrete and subsidies. And let's instead provide practical tools like high speed everywhere and credits for research and innovation. Subsidized lobby By the way, since we're talking about jobs and businesses, we should really review this monstrosity of having a lobby of companies working in NTIC subsidized by the government. A lobby subsidized by public funds? Knock knock! A rather innovative new concept, that. If the industry is not capable of taking charge of itself, there's a problem, right? Where is its independence in all this? You see Mario, just by doing all that, you would succeed in making Quebec a truly connected society. And yet, there are plenty of other ideas to think about, plenty of other projects to implement. I didn't tell you about a project to establish a global tax and customs clearinghouse in the Cité du commerce électronique, or anywhere else in Quebec. And there's no shortage of visionaries in Quebec. Clément Laberge in education (his vision could make Quebec City a technopole for education and NTIC), René Barsalo in e-commerce, Michel Cartier for a global vision, Jean-Claude Guédon in governance, I'll just give you a few names of people you should meet. I can't guarantee you votes from them, but at least a great long-term vision of connected Quebec. Obviously, since this text is now public, nothing prevents Jean-Bernard or John from drawing on these ideas or meeting these people. Who knows! Besides, at the risk of disappointing you, I'm not a given. However, I like your audacity in wanting to provoke major debates, even if it means making a royal mistake. At least you have the merit of doing so. If you feel like it, you write to me, we call each other and you come to the house with Marie-Claude and the children, yours and mine will have fun together. We grill sausages and talk about modern Quebec. We could even invite my neighbor across the river, to 24 Sussex. He should like it. Barbecues and golf, that's exactly the kind of thing he's getting ready to do all summer. - ADQ www.adq.qc.ca - ADQ Portal portail.adq.qc.ca - PLQ www.plq.org - PQ www.pq.org The text on StarOffice/OpenOffice will be published next week. mdumais@ledevoir.com

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By scanning the rooftops of Paris, Nantes or Lyon, you can find antennas that are not always... cathode ray. The members of wireless community networks, a handful of insiders, campaign against the commercial exploitation of WLANs and are part of the free software movement, defending free access, participation by all and the sharing of resources. Even if they are free and open only to registered members, these networks are illegal when they are deployed on public roads or do not operate in a closed circuit. The activists defy the law and mount commando operations or media demonstrations. Some today speak of guerrilla warfare. "We simply want to advance the law towards a democratization of Internet access," argues Marc Revial, founding member of the Wireless France association.

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Bill Gates has probably never heard of Lévinux, a small computer lab created in 1999 by a professor at the Lévis campus of the Université du Québec à Rimouski (UQAR), Jacques Daignault. But if he did, he might be worried that the Lévis lab was making clones, if only because it essentially runs on recycling old computers and free software. And since its founding, the "small, unpretentious research lab," as Professor Daignault calls it, has spawned Internet cafés around it, in community and school settings, particularly in the Quebec City region. Funded by Industry Canada, then by CIDA, it is now spilling over onto the international scene. An advisor to the Moroccan Minister of National Education, Zayer El Majid, just happened to stop by the Lévis campus yesterday to see what's going on there. A similar project, based on the Lévinux method, is currently being developed in Morocco and is of great interest to its minister, Abdellah Saff. "It is a project that is set to become widespread," noted Mr. El Majid, during a brief ceremony. "It involves creating laboratories in 20 high schools. This involves bringing together between 150 and 200 computers, devices that will be collected from them," explained Jacques Daignault. "The project is at the feasibility study stage. The report should be presented to CIDA in the fall. But we already know that the formula works in the Moroccan school system," he added. A teacher first and foremost, Jacques Daignault readily affirms that Lévinux is driven by the values of accessibility, sharing, and knowledge transfer. The beauty of it is that he embodies these values with small means, and at small prices, recovering computers from institutions like Desjardins for example. Computers that would otherwise be scrapped. "What Lévinux does is extend the life of computers, it breathes new life into computers that would otherwise no longer be used. Without penalizing users, rather to their satisfaction," explained Mr. Daignault, noting that the instructions are served by his interns in computer science and education. For the time being, Lévinux sites, set up by his solidarity cooperative Acantic and networked to the Linux operating system, can be found in about ten community access centres in the greater Lévis area, at the Maison des aînés and the Service d'entraide de Pintendre, among others. "We are starting to set up on the North Shore," said Mr. Daignault, noting projects developed at the Carrefour Jeunesse Emploi, the Service Jeunes Canada in Vanier, the Saint-Jean-Baptiste school, etc. And the Lévinux formula is already present in Gabon, developed by a sister entity with an international vocation, Equinux. Four laboratories have been set up at the country's École normale supérieure. With computers that the professor brought there in his luggage. In the opinion of Minister Jean-François Simard, delegate for the Environment and Water, who participated in the meeting, the Lévinux projects have a "very important structuring impact." MStPierre@lesoleil.com

## ###ARTICLE\_START### ID:365

Bill Gates, sworn enemy of open-source projects and Linux in particular, considers that revealing software source code, while not being a viable business practice for his company, is detrimental to innovation. However, when we look at the success of the development of hybrid projects like Netscape/Mozilla or StarOffice/OpenOffice, we would tend to advise Uncle Billou to be a little more discreet on the matter, and above all to keep his eyes open, and the right ones. The recent launch of version 1.0 of the Mozilla browser, combined with that of Netscape, excites many observers of the technological scene, to the point that some like to see it as the beginning of a new browser war, a war that, we thought, had been won masterfully by Microsoft and its Internet Explorer browser. Mozilla, Netscape? Is there a difference between these two products? And what is the community's contribution to a product that nevertheless "belongs" to AOL? Can products whose basic source code is common pursue different paths, one on the highway of profitability and commerce, and the other on the paths of free? From Netscape 4.x to Mozilla 1.0 Four years ago, Netscape, a company in decline in the face of the Redmond ogre, surprised everyone by announcing the availability of the source code of the next version of its browser. From the possible success of this project, two products were to see the light of day: Netscape, a commercial version intended for the giant AOL, and Mozilla, a version with free source code, whose primary market is developers. However, by making the source code available to the community, one of Netscape's wishes was also, in addition to its two original products, to promote the release of numerous variations of browsers with diverse characteristics, and for different operating systems. However, development took much longer than expected, given the limited resources available to Netscape. Time was pressing, because the different versions derived from the 4.0 figure were all known to be full of multiple bugs. This long wait unfortunately allowed Microsoft to take all the floor thanks to a product that, it must be said, was much superior. Netscape finally gave birth in the last few months to a version 6.0 of its browser, a product whose engine, Gecko, runs perfectly in accordance with the standards of the W3C consortium, without introducing small in-house subtleties like Microsoft, and Netscape well before, had the gift of. But Netscape 6.0 is still an intermediate version, and the ultimate goal is the release at the end of this summer of version 7.0, all based on the work from the community, and the future Mozilla. The Mozilla community has finally completed the development of Mozilla 1.0, a magnificent beast intended first for developers, but that anyone can use for the greatest pleasure. More respectful of the standards and established norms, you die. Mozilla is in perfect agreement with all these standards. But an exhaustive visit to many sites reveals that Mozilla, although solid and very little subject to unexpected crashes, is also a revealer of Internet sites designed specifically for the Internet Explorer browser. Not all sites, far from it, respect the standards of the W3C, and many of them are a little misinterpreted by Mozilla. And which, by the same token, will be with the future version 7.0 of Netscape. But is this really a disadvantage? Not a unique model According to Sylvain Carle, vice-president of technology at Messagia, known to the community for his technology notebook Afroginthevalley, the model used by Netscape is not unique. In addition to Sun's StarOffice and its community-based counterpart OpenOffice, other companies have realized that working with the community using well-established standards can be profitable. For example, Red Hat, which uses the Linux operating system as the foundation of its products, markets a version of this operating system, with features aimed at the server market, called RedHat Advanced Server, a high-end software sold for $1499. However, this does not prevent RedHat from subsequently donating a large part of its own developments to the community. Everyone wins, RedHat as well as the community. According to Sylvain Carle, "Mozilla's current strong point is its very strong and close-knit developer community. While Microsoft is developing its browser away from prying eyes, developers in the Mozilla community discuss, talk, exchange and, above all, develop new applications. There are currently over 70 related projects on the Mozdev site. And many of these projects are highly innovative." However, another significant aspect related to this entire community is that all these discussions and exchanges are accompanied by marketing and marketing plans. And whoever says marketing discussions on such a fundamental product risks seeing them influence the development of the future Web. "And currently, Web enthusiasts are enthusiastic about Mozilla." "Mozilla is one of the finest examples of a large-scale collaborative project that currently exists, and one of the first open-source projects that risks not only exciting, in addition to traditional developers, a whole new community of non-developers." On twelve platforms For example, Gecko, the rendering engine (which does HTML, XML, CSS as well as JavaScript) is made available to the entire community so that it can be included in any other product that needs an engine that uses standards and that works the same way on 12 different computer platforms. Whether for Windows, Mac OS 9 or OS X, Linux, Solaris and several other operating systems, Gecko is completely agnostic and confesses to all religions. Which is far from being the same strategy as Microsoft which only seeks to impose its browser for Windows, and to push the use of closed standards, even with a Mac version. Sylvain Carle states, "for developers like me, who have to choose basic technologies as a foundation for internal product and service development, it is certain that projects like Mozilla come with a certain assurance of sustainability, due to the availability of the code. As for Internet Explorer, I am at the mercy of Bill's moods..." Furthermore, since the Mozilla project is the very source of many other products that will be available for free or commercially exploited, developers will be reassured to see that whatever the platform used, users will always have at the heart of their consultation tool, an engine that guarantees them that, for example, a site will always be seen in the same way, this will limit the development of different versions of sites optimized for this or that platform. So, a cost saving. Interstructure All this completes a trio that the journalist Doc Searl calls interstructure (distributed infrastructure). It all started with Apache as the content distributor (the server side, for transporting content), the HTML standard and now XML as the content description language, and now Mozilla as the content receiver. So we should expect that this new browser war will not be as brutal as the previous one to keep the attention of some media for a long time... just as the development process that was longer than expected has managed to exasperate some columnists and developers. All this will be much more subtle and will play out over a longer period of time. Optimistic Sylvain Carle? Yes, concludes this technologist by affirming that "without commercial constraints, the engineers/programmers of Mozilla/Netscape took the time to do things well. In the long term, in three to five years, the foundations put in place by the Mozilla team will emerge as the market standard and dethrone Internet Explorer". Next week, we will continue to look at how a free-source product can help in the development of commercial software, and vice versa, by examining what is under the hood of the StarOffice 6.0/OpenOffice 1.0 office suites. And prepare yourself for big surprises. mdumais@ledevoir.com - The Mozilla Project www.mozilla.org

## ###ARTICLE\_START### ID:366

One of the most ambitious "open source" projects was born on June 5th. It is the Mozilla Internet browser which signs its version 1.0. Expected for more than four years by a very active community of Internet users-developers, the software makes a spectacular entrance into the small world of the Internet. As proof, several tens of thousands of Internet users have already rushed to download it (including 50,000 on the Download.com address alone) and it is already announced as the designated competitor of Microsoft's Internet Explorer. The adventure begins in January 1998 when the Netscape company announces that its product Communicator would henceforth be distributed free of charge and that the source code of the software could be consulted by all. From that date, several hundred volunteer developers throughout the world have set about advancing the browser. Concretely, when some tried to improve the software's resources, others tried to bring new availabilities, when others finally "tinkered" with the interface to make it more pleasant. Federated by the Mozilla community, these anonymous developers quickly experienced their first satisfactions, with the adoption by Netscape of the Mozilla display engine, called Gecko, from version 6.0 released in November 2000, but also many disappointments with the significant drop in volunteers, due in particular to the complexity of the browser's programming codes. In any case, the final version of Mozilla is now available and its performance is rather interesting. Among the good surprises, the speed of displaying websites. In use, and empirically, Mozilla even seems faster than the market leader, Internet Explorer. Other good news for those wishing to migrate to free software from IE, favorites will be automatically transferred to Mozilla bookmarks. For the rest, the software interface is particularly well-designed, like Netscape 6.0, Mozilla abandons square icons to make way for more roundness. The intuitive navigation bar plays the card of simplicity and customization since all the display options are very quickly configurable. In terms of features, many tools are delivered with the browser, including a complete email, instant messaging software as well as a very effective mini-word processor for taking notes while browsing. It should also be noted that the management of cookies has been the subject of very special attention on the part of the developers: for each spyware discovered, a detailed sheet with the main information is automatically edited. Finally, and unlike Internet Explorer, Mozilla offers Internet users the possibility of opening several Web pages in the same main window. A way for heavy users of Web windows to not get scattered and to classify, for example, the different Web pages visited on the same theme, in a single window. www.mozilla.org

## ###ARTICLE\_START### ID:367

Wrongly equated with an act of malice, or even cyberterrorism, hacking has a bad press. While the term hacker originally refers to a programming ace, it is commonly associated with a lawless pirate, committing destructive attacks on the network. Surveillance. Open\_Source\_Art\_Hack, an exhibition that runs until June 30 at the New Museum of Contemporary Art in New York, attempts to reverse this image by showing that hacking, by exploring and subverting technologies, can be a creative form of art. Security obsession and the issue of surveillance are at the heart of several projects. Josh On of Futurefarmers offers an anti-imperialist version of video games with his Anti-wargame. The player must wage a war against terrorism. A difficult mission, since in real life, soldiers desert, civilians protest and the President's popularity sinks. Lan's Trace Noizer generates fake personal pages and disseminates them on the network to confuse the identity of the Internet user. Surveillance Camera Players performs in front of video surveillance cameras, RSG hijacks the FBI's spy software, "Carnivore", which is widely criticized for its invasion of privacy. It spies on e-mails, web pages and makes the flow of information available to creators who visually interpret this data. Among these works by activists rather than hackers, the only project that navigates in troubled waters, at least legally, is the installation Minds of Concern by Swiss artists Knowbotic Research. The heart of the installation contains software that scans the entry ports of a network to detect its vulnerabilities. A process used by network administrators and security experts but also by hackers. Visitors could activate the scanner that examined neighboring networks and displayed the list of vulnerable ports and the means of penetrating them. Target of this operation: the ports of the organizations that protested in February against the World Economic Forum. Anti-globalization. By choosing to snoop on the computers of anti-globalization groups rather than large multinationals, the artists wanted to make them aware of the risks they would run of losing very sensitive data. The reaction was not long in coming. Following a complaint from one of the scanned sites, the New Museum's access provider informed the museum that such a practice violated its rules. Instead of taking advantage of the opportunity to spark a real debate on the question of public and private in cyberspace, the museum preferred to disable the software. "Due to the omnipresent paranoia, and the threat of legal action, the curators made it clear to us that as artists we are 100% on our own in the event of a dispute," laments Knowbotic Research on its site.

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Brussels, special correspondent. Seated around a school desk, there are ten of them, heads bent over their work, a scratcher, a piece of sandpaper or a model engine rubbed against a lapel microphone. Together, they compose a sound mixture where the hiss overlaps the whistle. "You have the possibility of creating sounds that no one hears, of putting a cup on them, of amplifying and making the whole table resonate for example", explains the Berlin musician Andrea Neumann, who plays the dismantled piano, a skeleton of strings that she twists with clothes pegs. This sound workshop, led by the electro duo Petit Pâle, brings together musicians and programmers, radio people and graphic designers in a Brussels tavern. A joyful mix typical of the Jonctions festival, which ended yesterday in Brussels (1). His specialty: transcribing into reality the practices born of networks, in a hypertext manner of genres and disciplines. One condition: musicians, tinkerers of sounds or codes, images or texts invited to perform must share their experience during workshops. A way of sticking as close as possible to the culture of the network, celebrated in its "free" conception: exchange, cooperation and sampling. A culture of open source, a stocky IT concept that evokes the provision of software writing codes for an appropriation and diffusion of technology contrary to commercial rules. Stunted budget. "As in the early days of cinema, we are the hucksters who stood next to the screen to welcome and explain," describes Laurence Rassel, member of the Constant association, which has organized this event for six years. "We have very little subsidies," explains Nicolas Malevé, active member of Constant. Our network was formed thanks to the culture of free software, with free solutions." The support of the French-speaking Belgian community is lacking, as they take a dim view of the minimal bilingualism of the events. With volunteers and a shoestring budget (40,000 euros), Jonctions presented concerts, conferences, video screenings and cinema for two weeks. Since its creation in 1997, Constant has organized exhibitions (the first was dedicated to the filmmaker Chris Marker, author of the CD-Rom masterpiece Immemory One), introductory sessions on computer tinkering for women, victims of technosexism, and conferences by theorists. After the fantasies of a new society (posthumans, the Gaia spirit, collective intelligence, etc.), after the new economy, whose "spectacular boom has blinded us all", according to Richard Barbrook, founder of the Hypermedia Research Center in London, the visions of the network are quite clear-cut. The first, "Net Monopoly", belongs to the industrial groups that are fighting against Napster and refuse to allow the future of the network to be interactive. The second, the "Net of Geeks" (network addicts), is that of the Jonctions audience. It relies on those scientists who designed the Internet as an open book, after diverting it from its military objectives. And "if the military didn't stop the geeks, I don't think the music business can do it," says Barbrook, before evoking the third option, the "Net of Everyone," which would deal with these "paradoxes." Since, he says, "communist software depends on capitalist hardware," a mixed economy should emerge. Where record companies would review their relationships with artists, by monetizing their services rather than taxing records. Where states would work to create an educational public space and promote fast connections. And where the public would discover everything "that's not in the manual." Extreme. This "open future, like the architecture of the network", joins the visions of Jonctions regarding these uninhibited practices on questions of authorship. These biases encourage exchange: Amy Denio, American singer of spoot music, gave an acoustic concert before performing with the Spanish electroacoustician Francisco Lopez, who pushes his audience to extreme positions (his sound waves submerge the audience). And the discoveries. The electro ditties of the Japanese Tujiko Noriko, the qualities of PD (Pure Data, free software for real-time composition) according to the Belarusian Andrey Savitsky, who can "create musical structures live, by manipulating previously collected sound experiments"... The contamination of reality, via digital culture, has begun.... (1) www.constantvzw.com/vj6

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It may be said, but despite the ultra-realism of some games today, I still have as much fun playing old games that are rightly considered classics. How can you resist a game of PacMan or Donkey Kong? Impossible! One of the most exciting gaming machines in my opinion remains the good old Colecovision. Like many inveterate gamers, I spent (lost) hours and hours playing Donkey Kong, Burgertime or Q-Bert. A "gameplay" that is as simple as it gets, but you always want to play it again. How about a free ColecoVision? Come on! Let's emulate it all. - The ColecoVision console www.classicgaming.com/museum/colecovision/ - A ColecoVision emulator www.classicgaming.com/vcoleco/ - ColecoVision in Java www.classicgaming.com/vcoleco/JavaDemo/VColecoJavaDemo.html Various resources for Colecovision www.classicgaming.com/vcoleco/vc\_resources.html And of course, games, games and games!!! www.classicgaming.com/vault/colecoroms.shtml Swan song The Apple IIgs, the last representative of the venerable Apple II range, was the swan song for its designer, Steve Wozniak, the man who founded Apple with Steve Jobs. As the Macintosh was finally starting to find success with the Pagemaker/LaserWriter/PostScript combination, Apple launched the Apple IIgs with a user interface almost identical to that of the Macintosh. Easy to hack, easy to program, easy to use, with an incredible number of software packages to stimulate creativity, even today, I am convinced, the Apple IIgs could serve as a model computer to introduce children to computers at school. Fortunately, there are still plenty of resources devoted to this magnificent computer and in particular, a Mac OS emulator imitating in all the functioning of the IIgs: Bernie II. Download it, install the IIgs operating system, and search the Net to find the hundreds of applications still functional today. And watch your little ones play with this "new computer". Apple II forever! - The Apple IIgs www.old-computers.com/museum/computer.asp?c=71 - Bernie II www.bernie.gs/Bernie/ - The latest operating system for the IIgs as well as Hypercard IIgs www.a2central.com/stuff/applesoftware/filelist.html - The "mages" of the ROMs (01 and 03) of the Apple IIgs as well as many games. www.inwards.com/~fairway/ - Live resources for the Apple II on the Web dmoz.org/Computers/Systems/Apple/Apple\_II/ PDFfactory Reading a PDF document is within everyone's reach. All you need is Adobe's Acrobat viewer, available for all operating systems. However, to produce a PDF document, you had to buy the Adobe Acrobat software package, which sells for $249, or be a Linux or Mac OS X user, with the technology either built into the operating system or available under the open-source software model. The new product from software publisher FinePrint will certainly help put pressure on Adobe. PDFfactory, its new baby, allows Windows users to produce their own PDF documents for less than $50, a $200 difference from Adobe's flagship product. A trial version is available on the FinePrint website. - PDFfactory fineprint.com/software/pdffactory/standard/index.html michel dumais

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Arthur Gutch is passionate about Montreal. Having moved to his Westmount home with his family for a month now, the Californian appreciates the city for its quality of life and the "creative spirit" of its population. Mr. Gutch also, as you might expect, likes the Quebec government's tax credit program, set up last year for the downtown Montreal e-commerce zone. These incentives offer technology companies a refundable tax credit representing 35% of the salary of new employees for a period of 10 years. The Montreal firm Ideas et associés, chaired by Mr. Gutch, also hopes to take advantage of this program to create no fewer than 700 jobs over the next three years, he indicated in an interview with La Presse, in his very stylish offices on rue de Bleury. Specializing in software dedicated to the media and entertainment industry, Ideas et associés will participate with Premier Bernard Landry and Finance Minister Pauline Marois in a press conference this morning in Montreal. A dozen companies will be presented, which should create hundreds, if not thousands, of jobs in the e-commerce zone, if all goes well in the coming years. Long term "I'm not here to make a quick buck," said the American investor. "We want to set up a solid company that will grow thanks to its good products." Arthur Gutch, who has been an advisor to Fortune 500 companies, we can read on the Web, knows that the task will not be easy. To ensure Ideas' growth, he plans to buy companies and hire qualified personnel. He will also have to train new teams in the effervescent, and very risky, information technology sector. The first stage of the plan is complete. After several visits to Montreal in recent months, he found Ideas, a four-year-old company with about forty employees. He then reached an agreement with IC Capital, a Toronto investment bank, to gain access to $50 million in capital to buy companies and technologies. Financial partners also injected $5 million US into the firm's coffers. Following a recent merger with FreeSoftware Club.com, Ideas is listed on the NASDAQ electronic stock exchange. Its stock (FSWC.OB), which is still identified with the name FreeSoftware, is however traded over the counter since it does not meet all the criteria of the large market. It is trading around 10 cents US. A profitable company Mr. Gutch was attracted to Ideas for several reasons. First of all, it is profitable. With revenues of $6 million, the Montreal company rakes in a net profit of approximately $150,000. Next, it focuses on the world of media and entertainment, a sector with high potential, he explained, despite the economic upheavals and the collapse of the stock markets. Among its activities, Ideas designs applications, develops software and offers its consulting services. It covers in particular the aspects of email marketing, the management of advertising campaigns and promotional advertorials. Arthur Gutch's objective is to transform this web designer, originally, into a multi-product and service company. "As a subcontractor, we will offer solutions to increase revenues and reduce costs for our clients," he stressed. Ideas has just launched a new product to make life easier for advertisers in newspapers. Thanks to Easy Tearsheets, all the manual operations of placing an advertisement on a page are done electronically.

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APPLE is launching a new offensive on the enterprise server market, a segment in which the computer manufacturer only has a very marginal position compared to the Microsoft-Intel duo and the giants of the sector, which offer servers under Unix. Apple shares jumped 7% on Tuesday, May 14, following the announcement of its offensive on this new market with a new machine called Xserve. The Cupertino (California) manufacturer, which remains a secondary player in global IT (around 4% market share), has in recent months generated new enthusiasm for its innovatively designed products and its new software for the digital era (photo, video, music, DVD). Its turnover increased by 4% in the first quarter, while the European and American markets, hit by the crisis, declined by 3.5%. Its new iMac with a spherical base and flat screen sold 220,000 units in the quarter, more than the first iMac, launched in 1998. By investing in the highly competitive market of enterprise servers, Apple is nevertheless setting itself a considerable challenge. Faced with the steamroller Microsoft, which is also targeting this very profitable market and which is also a shareholder in Apple, the battle promises to be tough. Steve Jobs, Apple's CEO, therefore launched the charge on Tuesday, May 14, with Xserve, a rack server (with the possibility of stacking up to 42 central units of 4.5 cm thick in the same "cabinet" to multiply the computing power). This new server is intended for the implementation of applications making intensive use of inputs and outputs such as digital video, high-resolution digital imaging, databases, large scientific data sets and Web and email services. UNLIMITED NUMBER OF USERS This new machine from Apple is challenging Hewlett-Packard, Dell or Sun on their favorite turf. The market for rack servers is growing by 300% per year, while that of traditional servers (in tower form) is stagnating. But it is also a direct response to Microsoft's strategy, which recently changed its licensing system and requires users to pay annual fees and pay for each update. The Mac OS X Server license, included in the price of the server (starting at 3,600 euros excluding tax), authorizes an unlimited number of users in the same company. The Xserve is primarily aimed at Apple's traditional customers (media, publishing, video broadcasting, education), who were until now limited in their expansion plans by Apple's existing servers. But the group also hopes to evangelize other industries. Since the launch of its new OS X operating system, Apple has indeed emerged from its isolation by adopting the Unix architecture and flirting with the Linux free software community, which is increasingly finding affinities with the Apple universe. As a result, Apple claims to be the leading company in the Unix community today.

## ###ARTICLE\_START### ID:372

SOISSONS from our special correspondent - On the roadblocks set up at each entrance to Soissons during the "ghost town" operation organized on Tuesday, May 7 (Le Monde, May 9), the question comes up insistently. How many of the 450 employees of the Wolber unit (Michelin) closed in 1999 have found a job? 60, as the CGT union proclaims? Or more than half, as Edith Essrati, mayor (various right) of the city, claims? The quarrel is not insignificant in this city of 30,000 inhabitants where, before the end of May, 650 employees should receive their dismissal letters following the compulsory liquidation of the AR Carton printing works (200 people), the BSL boilermaking company (305), with their subsidiary Berthier (75) and the Pecquet-Tesson company (64) in the process. After a majority of women at Wolber, this time it is men, professional workers with an average age of around fifty, who find themselves without prospects of redeployment in a region that will have lost, in the space of a month, the equivalent of 12% of its industrial employment. "Will we have to go and look for work in Paris?" asks Claude Berthelot, from A R Carton. While acknowledging that "there is no miracle solution", he is concerned about "the powerlessness of the public authorities and local elected officials" to whom employees are turning to obtain improvements in social plans, and especially hopes of reindustrialization. "We strongly demand that the State appoint technicians authorized to implement immediately applicable exceptional measures": this is a new cry of alarm launched by Jean-Marie Paulin, president (PS) of the urban community. After the closure of Wolber, the Michelin group created a reclassification unit and promised aid for the installation of logistics platforms, with 250 to 300 jobs at stake. Only the Géodis company created about ten jobs, and two other projects are still under consideration. In May 2000, the interministerial committee for regional planning (CIADT) adopted emergency measures for the Soissonnais region. But, here too, it takes time to develop a new 63-hectare activity zone and carry out the restructuring of the Gouraud barracks in the city centre. In the still embryonic technology park, elected officials want to encourage the creation of companies in the field of free software. But, for Mr Paulin, a second "action plan" from the CIADT would be needed to deal with the "tearing apart of industrial employment". "When you knock 500 jobs out, regional planning takes a hit. "We see the effects of the State's disengagement when we let the economy do its thing," also deplores Jacques Desallangre, MP (MDC). "Soissons let the industrial revolution pass thirty years ago. It should have been anticipated," maintains, for her part, Ms Essrati. A rather calm and affluent city, Soissons woke up with an unemployment rate of 12%. And with nearly 24% of the votes in favour of Mr Le Pen in the first round of the presidential election, compared to 16% in 1995.

## ###ARTICLE\_START### ID:373

A NEW form of spyware is lurking on the Web: spyware. Their mission is to spy on the actions of Internet users, to note the sites they visit and to collect the keywords submitted to search engines. Or to collect the information entered on forms, including, where applicable, the credit card number when making online purchases. Nothing or almost nothing escapes them. Enough to feed commercial databases, in order, in particular, to place targeted advertisements on computer screens. Thus, it is useless to be surprised if, when visiting the site of an online bookseller, an advertising window suddenly opens on your screen, extolling the merits of a competitor: spyware is lurking. It will have infiltrated the Internet user's hard drive without his knowledge. And some go much further than what the famous cookies already know how to do, these files placed on the hard drive by most sites. Some spyware actually allows its authors to take complete control of the infected machine, or to discreetly use the computing power of the computer, always obviously without the knowledge of its owner. Completely illegally of course. To install themselves on hard drives, they discreetly mix with another software - generally freeware, a free application available on the web - when it is downloaded. In other words, when you think, for example, that you are only downloading an MP3 music player from the Internet, in reality you are also downloading spyware. The author of the free software hosts the spyware for a fee, but does not always take the trouble to clearly indicate its presence. And unless you never do the slightest download, there is little chance of avoiding it. Privacy Defense According to various sites specializing in privacy defense, between 800 and more than 1,000 free software programs are "infected" by one form or another of spyware. To name just the best known: Babylon Translator, AudioGalaxy, Cute FTP, EuroConverter 2, Free MP3, Gator, Zip express 2000, or even ICQ (instant messaging), RealJukebox (audio file player)... The latter thus transmitted to the publisher Real Networks a host of information on the software's users: categories of music tracks played, number of tracks stored on the user's hard drive, names of albums listened to, etc. Since the discovery of this spyware, and the disclosure of its existence, Real Networks has been forced to publish an update to remedy it. But spyware continues to proliferate nonetheless. One of the best known, Cydoor, published by the American company of the same name, is already installed on more than 20 million computers worldwide. Every day, 100,000 new Internet users fall under its control, despite themselves and without knowing it. With the freeware Gator (virtual assistant for filling out online forms), 8 million surfers have been trapped by a virtual spy, via Audiogalaxy (an application for exchanging music in the style of Napster), according to the monthly SVM. If it is therefore complicated to escape spyware, it is even more difficult to know its precise activity, the exact nature of the data it collects, the recipients of this data. Some publishers, such as Cydoor, admit in any case to using the databases thus created for advertising purposes. But, they swear, no personal data is transmitted during these exchanges. "It is still illegal, notes Yann Le Hegarat, an IT expert at the CNIL (National Commission for Information Technology and Civil Liberties). It is true that many software programs of this nature only send indirectly nominative data, such as the IP address. But without this being directly nominative data, we identify a computer, and therefore a profile. The problem with spyware is that we can practically not identify the person responsible. In addition, many companies are based in the United States, and French jurisdiction is not effective in this case. It is in fact impossible to enforce the law: legal impossibility, or practical impossibility." This shows that spyware still has a bright future ahead of it.

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THE social and productive practices developed by hackers, computer "pirates" for some, Network "activists" for others, are said to be shaking up capitalism. At least that is what the magazine Multitudes suggests in its March-April 2002 issue. Returning to Pekka Himanen's latest work, L'Ethique hacker (Exils, 2001), Pascal Jolivet, an economist specializing in new information and communication technologies, explains how the young Finnish philosopher contrasts in his essay a "hacker ethic" with the "Protestant work ethic" that is the basis of contemporary capitalism. Thus, while work, according to the Protestant approach, is defined as a moral purpose, an end in itself, the hacker ethic would be based on innovative social practices, such as the cooperative production of free software in a network, and an alternative relationship to work not motivated by money, but by passion, play or even pleasure. "The work carried out in these hacker communities, as it is presented in the Linux project for example, is directly cooperative and voluntary work, whose structure is that of a horizontal network", analyzes Pascal Jolivet, who adds that "the network society is not only determined by capitalism, but to an almost equal degree by "scientific communism"". In this spirit, Richard Barbrook, the inventor of the term "cybercommunism", believes he can identify in the generalization of the free exchange of MP3 music files on the Network thanks to "peer to peer" technologies, the emergence of an economy of "gift and cutting edge" or "high-tech gift". For the coordinator of the Hypermedia Research Centre at the University of Westminster, these transgressive practices that undermine copyright laws in the music industry are a sign of deeper economic and social transformations conveyed by hacker culture. Because, according to the various contributors to the journal, what free software activists, and more generally hackers, are challenging is one of the very foundations of the capitalist model, namely intellectual property and, beyond that, private property. In a way, we are witnessing a return to Proudhon's thinking: "Intellectual property is theft!" "We are all hackers!" "The failure of the net economy is due to the resistance to capitalist valorization (coming last, wanting to rake in the cash for collective work) posed by hacker ethics and user ethics, based on principles other than that of exclusive appropriation," writes Italian sociologist Maurizio Lazzarato. "The rhizomatic communication of the Web" (in capillary networks), he continues, not only draws the "outline of another globalization", but also reveals "the work of an immense qualified work which, like voluntary and associative work, is not exchanged with anything, if not the desire to communicate, to act together, to socialize and to differentiate oneself, not by the exchange of services, but by "friendly" relations". For Yann Moulier Boutang, director of the journal, this "technological revolution" is the consequence of a mutation of the wage earner, fruit of a shift from industrial capitalism, which is based on wage labor, towards a "cognitive capitalism", based on the production and exchange of knowledge and the processes of collective intelligence. To the demand of the "new neo-socialist and neo-Marxist thought" of "a job for all", Multitudes opposes a "guaranteed income" for all and replies: "We are all hackers!"

## ###ARTICLE\_START### ID:375

Whether you are a simple person who plays with HTML as an amateur, or a small company that wants to have a presence on the Web, there comes a day when free hosting solutions no longer meet your needs. How do you choose a service provider that will host and serve your precious Web pages on a money browser? This way please and don't forget the guide. For some time now, your ego has been growing at the same rate as Mario Dumont's the day after a partial. Your website works so well that the limits imposed by your "free my friend" host force you to look at providers who, for hard cash, will offer you more possibilities. However, after multiple visits to host websites, here you are, as usual, not knowing which plan to choose. Having shopped for hosting myself, I can tell you that it is almost as complicated as choosing a cell phone plan from Bell. Nah, after careful consideration, there is nothing as complicated as Bell's plans. By the way, a little plug that I commit voluntarily, and with the consent of the house cat, if you need advice on the world of cell phones, go kiss for me the cell phone guru in Quebec, Éric Bernatchez, who has a shop on the site About.com. Really nice, Éric will surely answer all your questions on the subject. But enough nonsense, and let's talk hosting, a subject as exciting as negotiating a mortgage, but which we will have to face one day. By the way, it is a question that has come back to me a few times in the readers' mail. Let's answer it once and for all. Issues When it comes to hosting, it is important to understand that the issue is not linked to the size of the site and its owner (individual, SME or large company), but more to the importance of said website. I woke the riotous Philippe Le Roux, Internet strategist at the VDL2 group, from his deep sleep to ask him, he who has been working in this field since the glorious days of the Minitel in France, what does not make him any younger and confirms to us that his few new gray hairs are indeed due to his honorable age, what to do to choose your host well. To say Le Roux, who is not redheaded at all, although I do not want to attract his wrath, "it is appropriate to ask yourself several questions and to define your priorities before even choosing your host. For example, how much would two, five or ten hours of prolonged outages on my site cost me in money or time and how much am I prepared to pay to avoid it". For most sites, the possible loss in the event of an outage is very small and is therefore not worth a premium of several hundred dollars per month that some hosts ask for guaranteed reliability. However, if the closure of the site really causes harm, it then becomes essential to choose a solution that guarantees the service. We must also ask ourselves what need for autonomy is necessary because shared approaches most of the time bring significant constraints on what we are allowed to do and not to do. To continue Le Roux, "we should question our delegation needs", because the more autonomy we have with our host, the more the technical responsibilities that come with them require a good knowledge of the host's server environment. Finally, we will have to think long and hard about the desired level of control, because most hosts require choosing a budget plan or a configuration that makes us responsible for guessing what our data consumption will be (in gigabytes) or what technical resources will be necessary, while in general, the goal of hosting is to get rid of technical considerations. A crucial detail according to Le Roux, "when shopping for a host, you must always plan for the worst. Indeed, if the host goes bankrupt, what happens to my site [have I backed up my data elsewhere than with my host]?" Ideally, the domain name and DNS should be independent of the host. For the same reasons, if the host closes and the DNS is elsewhere, it is then possible to quickly transfer your site elsewhere. Because if it is the host who also manages the domain name and the DNS, then the site is not ready to restart. Say goodbye to calves, cows, pigs and Loria. Four types of hosting There are four types of hosting service currently on the market. Four types that Le Roux dissects and analyzes for us. 1. Large farms such as 9avenue, Verio or others, which are most often based in the United States. These offer affordable plans from 10 to 50 US dollars per month and generally offer good service. This is often the perfect solution for those who want technological security (performance) at a low cost. On the other hand, the constraints are significant. If you want to go beyond the basic functions, you have to be competent in IT. In addition, they do not offer any service guarantee. 2. Local providers, such as CAM or iWeb, which offer shared or dedicated hosting services at affordable prices. Perfect solution for those who want local service and the ability to speak to someone who is live and in their language. The problem is that these providers provide a lower performance guarantee and are rather reactive to problems reported to them. They sometimes offer a 95% service guarantee or better (i.e. a tolerance of 36 hours of failure per month plus exceptions). 3. Large technology players such as Bell, Teleglobe, Versus or Telus who, in fact, rent infrastructure. They generally offer high quality performance and service but are often expensive (over $1,000) and leave the customer responsible for deciding the technological infrastructure (how many servers to rent, what brand, what configuration, etc.). They usually offer a 97% service guarantee (20 hours of downtime plus exceptions) 4. Site operators like VDL2 (columnist's note: what a coincidence, right?) who take charge of the site and not the server and take care of everything in exchange for billing on consumption. Advantage, the company gets rid of all the technological problems and responsibilities. On the other hand, the cost is generally higher (from several hundred to several tens of thousands of dollars). The operators must master the site's applications to maintain them permanently. They offer a 99% service guarantee (seven hours of downtime per month without exception). Of course, it is possible that the hosts in one or the other category offer more or less services. For example, a local provider could offer a 99% service guarantee while another, not at all. Some, for the same price as their competitors, could give you the possibility of doing RealAudio while others, not at all. So it's up to you, dear readers, to ask the questions, based on the information we've provided you, and to carefully examine the fine print of your contract before signing it. A question of services Recently, your columnist had to shop around for hosting solutions himself. From the start, there was no question of going to deposit his money in the United States, or asking for favors. I assume the nationalist in me and I believe that our local providers can be as efficient and offer as good a service as American or even Canadian hosts, just as, to answer the frown of some suspicious readers, the price I currently pay is the same as you would have to pay monthly for your hosting. In short, let's be clear, no special treatment for the columnist. Having several sites linked to several domain names to manage, domain names that another company than my host handles, MediaFusion in this case, I therefore looked at the offer of several local suppliers, by asking questions to a few people doing business with them. Because nothing beats a reference from a user. In addition to the price that I wanted to be competitive, I wanted my supplier to be able to allow me to manage my CGI myself, that its servers be OpenSource, that it offer me the PHP/MySQL couple, and that it agree to let me manage my email server, distribution list as well as all my other needs, through a Web interface. Similarly, not living in the same city as my host, an 800 number for 24/7 service was also an essential point. Note that I even have access at all times, with the host that I chose, to a technician, and this, in a very original way, that is by personal ICQ messaging. Finally, I wanted the company to be "small" enough that I could eventually speak directly to its owner, in case of major problems. I finally opted for iWeb, although some other local hosts were just as competitive. I found that this host's offer met all my needs, in addition to having the right to excellent service in French, which was another essential point on my list of requests. Since then, I have sometimes needed a little help: twice, on the weekend, I had the technician on the phone in less than a minute, and another time, by ICQ, I had one of the shareholders of the company who was able to solve my problem in less than an hour. And once again, I repeat, no preferential treatment for the columnist, who pays the same price as all the other customers for his hosting with iWeb. It is therefore also as a satisfied customer that I am speaking to you. mdumais@ledevoir.com - About.com cellphones.about.com/ - Verio www.verio.com - CAM www.cam.org - iWeb www.iwebhebergement.com - Bell www.bell.ca - Téléglobe www.teleglobe.ca - Versus www.versus.com - Telus www.telus.ca - MediaFusion www.mediafusion.ca

## ###ARTICLE\_START### ID:376

While all the candidates have integrated the Internet into their campaign, most of them have not made information and communication technologies (ICT) a central theme of their program. After Jacques Chirac denounced the "digital divide" and Lionel Jospin the "digital divide", the new fashionable slogan is now: "High-speed Internet for all". While Lionel Jospin campaigns for an active and fair France in terms of new technologies, Jacques Chirac promises to launch a national plan aimed at catching up with France in terms of equipment. In terms of results, the Prime Minister has increased tenfold the number of Internet users in France but has not achieved all of his legislative objectives. As for the candidates' sites, they are enjoying critical acclaim. BETTER than Loana! The record for connections recorded by Wanadoo during an Internet debate, held by the blonde heroine of "Loft Story", was beaten at the end of March by a chat with Lionel Jospin, which brought together some 33,000 European Internet users, according to the candidate's campaign team. An audience that is not comparable to that of a traditional meeting. Clearly, the Internet has entered French political life head on. The network had already been widely used by candidates in the 2001 municipal elections. But this is the first time that it has played a real role in a national election. However, while all the candidates have integrated this new tool into their campaign, most of them have not made information and communication technologies (ICT) a central theme of their program. At least the digital revolution does not appear as the promise of a brighter future. The bursting of the new economy bubble has dampened yesterday's enthusiastic outbursts. After Jacques Chirac denounced the "digital divide" and Lionel Jospin denounced the "digital divide", the new fashionable slogan is now: "High-speed Internet for all". In his electoral programme, the candidate-prime minister states the objective of "making France the most dynamic digital economy in Europe". Lionel Jospin develops this theme from two angles. First, that of "active France": "Mastering these new technologies for all must be a genuine public service", he states. We will develop it by focusing on equipping young people, in association with local authorities." He sets himself the objective of "one computer connected to the Internet for every five pupils in each primary school, one computer per family for middle and high school pupils, one laptop per student". Then, that of "fair France": he promises "voluntary action so that the entire territory is connected to high-speed Internet by 2005". Jacques Chirac, in his "Commitment to France", is more succinct. He simply promises to launch "a national plan to catch up on the equipment gap in French homes connected to the Internet and guarantee access to high-speed Internet in every municipality by 2007". Questioned by the Journal du Net, the two main candidates for the Elysée Palace clarified their proposals, which often turn out to be very similar, even interchangeable. Mr. Chirac sets himself the goal of "one computer for every three students in schools, one computer per student at university and one computer per family", all "by 2007". This national "catch-up" plan, he indicates, "will primarily concern disadvantaged families". Students will be "aided by scholarships that will have to cover the cost of purchasing a computer". The presidential candidate is also in favor of "extending tax breaks for companies that would like to give computers or Internet packages to their employees". The whole of this program, he estimates, would represent an effort of 300 million euros. a proactive policy Mr. Jospin, for his part, announces that his objectives will be achieved "by state support for the equipment of schools and, with regard to personal equipment, by support benefiting in priority the most modest incomes", but without specifying either the nature of this aid or its cost. Concerning access to broadband, he advocates "a proactive public policy, in order to allow the deployment of infrastructures in the zones where the operators will not go spontaneously", the renewal of the State-regions plan contracts, in 2003, constituting "an important meeting" to implement this policy. Mr. Chirac also considers that "in regions where the simple play of the market economy would not allow the installation of fast Internet, public intervention is necessary", within the framework of the same plan contracts. The other candidates reserve very diverse treatments for the Internet. Jean-Pierre Chevènement is one of those who present the most detailed proposals. To "democratize access to the Internet", the leader of the Republican Pole advocates "unlimited flat-rate access offers at prices comparable to that of a telephone subscription", with "specific assistance reserved for modest households". Regarding access to high-speed Internet in rural areas, where ADSL technology (on a classic telephone line) is difficult to implement, he wants the State to "encourage" operators to offer suitable solutions "on comparable financial terms". The former Minister of Research is also in favor of "free online access to all scientific literature" and proposes creating a CAPES and an aggregation of computer science. François Bayrou devotes 13 of the 260 pages of his program to measures that would allow "accelerating France's entry into the information society": tax incentives to encourage the purchase of connected computers by low-income families, associations and town halls of small communities; extension of the Messier amendment (offering of computers to employees by companies) to all socio-economic sectors and to the administration; Internet access points in the streets and all public places; "declaration of the rights of the digital human being"; creation of a ministry of the information society... For Alain Madelin, "the Net prefigures the new ways of organizing our society", according to "a self-regulated system based on freedom and responsibility". Robert Hue, on the contrary, raises the question of "the democratization of telecommunications regulatory bodies", which should include representatives of unions and associations and be "under parliamentary control". Noël Mamère wants to "encourage innovative practices aimed at developing a free, civic and supportive Internet" by offering "specific support for the creation of companies using free software." Corinne Lepage proposes preferential subscription rates for under-equipped regions, tax deductions to facilitate the penetration of broadband in homes, as well as the creation of a "national knowledge management website." Bruno Mégret is concerned with "guaranteeing freedom of expression and communication" on the Web, while the National Front insists on the protection "of national companies from competition by taxing all online purchases on a site operated abroad." As for Olivier Besancenot's advisor for technological issues, the representative of the LCR, he describes the Internet as a symptom, emphasizing that "the digital divide is only a secondary avatar of the social divide."

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The choice of an operating system, and consequently of a computer that will get the most out of it, is very often linked to the applications and the use that will be made of them. Mac OS, Windows or Linux, these operating systems all offer, without exception, the flexibility necessary to take advantage of increasingly powerful microprocessors. However, Mac OS X has two huge advantages over Windows and Linux: a deep integration of software and hardware components as well as extreme ease of use. As you know, dear readers who follow the very humble step in his computer wanderings, the sterile quarrels between Mac supporters and Uncle Bill aficionados leave him totally cold. As I always say to anyone who asks me this question, namely what to buy, a Mac or a PC, the choice of a computer, and consequently, of the operating system, is a question of knowing what you want to do with this tool. If the main application you will be using runs on Mac OS, then there is no question; you need a Mac. Conversely, if, for example, you need to exploit the virtues of a CAD software like Autocad, then only a Windows PC will satisfy you. One can also choose an operating system for a philosophical question, like the Penguin worshipers who decided to free themselves from the yoke of Steve or Bill by adopting a free and open source operating system. But again, for the not very humble, who tries as much as possible to get the most out of these three operating systems, the bickering of little boys with high testosterone and high frustration rates about who is the best of the three and that "my father is stronger than yours" leaves him totally cold. To all of them, take a few capsules of glucomachin, after all, there are still 800 milligrams of unidentified stuff in there. It can't hurt you. The best of both worlds My days are spent tossing and turning between a Linux computer at my feet, my laptop running Windows XP and Linux, and a beautiful titanium Macintosh G4 laptop running Mac OS X. And after a month of thoroughly experimenting with the virtues of Mac OS X, I have to admit that the very Holy Father Steve iJobs 1st and his engineers have done a thunderous job of integrating the power of Unix into a package that even the most novice users can easily use. However, more experienced users will appreciate being able to access all the power available under the hood of Mac OS X. Indeed, despite the superb AQUA interface, which some have nevertheless decried, Mac OS X is a true UNIX in Sunday clothes. Multitasking, multi-user, Mac OS X is a modern operating system that differs radically from its previous iteration, Mac OS 9.x. So different that many applications are not yet available in native OS X mode. This is why Apple offers to install a copy of Mac OS 9.x, to be able to run applications that have not been "carbonized". However, there is no need to restart your computer to switch to OS 9.x mode, as the two operating systems can run concurrently. Since Mac OS X is a real UNIX, applications designed for this operating system can now run under Mac OS X, provided they have been recompiled. Fortunately, many Internet users, crazy about UNIX and their Macintosh, have now launched projects on various Internet sites to offer the pilots of the virtual world precompiled UNIX applications for Mac OS X. Many applications from the world of free and open source software have now found new outlets. My colleague Jean-François Codère, from the Multimédium site, has also installed a few applications from the free software world, including the Gnome manager, as the visual at the top of this article demonstrates. Still a Mac Current users of Mac OS 7-8-9 can rest assured, Mac OS X is still a Macintosh, which means that "plug and play" is still the best on the market, installing software is still just as simple, in short, a Macintosh running Mac OS X is still a Mac, i.e. the easiest computer to use today. However, to harness this power and ease of use, there is a price to pay: you must have a Macintosh with at least a G3 processor (the latest generations of G3) and 256 megabytes of RAM, even if the very Holy Apple claims that 128 megabytes allow you to use Mac OS X. In any case, at the price at which RAM sticks are available, it would be stupid not to update to enjoy increased user comfort. Hats off to you very Holy Father Steve, after a year now, your Mac OS X is now mature, stable and highly trippy. Mac OS X should even make many people who wanted to switch to the world of the Penguin think again. Moreover, we can start to read on many Internet sites the testimonies of Penguin worshipers, all pleasantly surprised by the performance of Mac OS X and its proverbial flexibility. However, allow a very humble person to dream of a version of Mac OS X for PC. Let it be said, such an operation is possible, and I imagine that, in the nightmares that Uncle Bill occasionally has, this scenario is one of those that must surely prevent him from sleeping one or two nights a year. All it takes is a rumor announcing the arrival of Mac OS X on a PC platform, and those few nights will turn into weeks. Hats off to Apple for your Mac OS X. Fink: the site to find Unix software running on Mac OS Xfink.sourceforge.net/mdumais@ledevoir.com

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"An ideologue opposed to the market economy" BERNARD LANG does not like to receive people in his office. With an amused look, he points out "the weight of [his] guilt", an imposing jumble of magazines, books and reports that clutter his desk. "Everything that I have not had time to read or put away", he apologizes with a smile. Bernard Lang is singularly short of time. At 57, this research director at the National Institute for Research in Computer Science and Automation (Inria) has great difficulty in fitting into the same schedule his obligations as secretary of the French-speaking Association of Free Software Users (AFUL) and member of the board of directors of the French chapter of the Internet Society (ISOC-France). As part of this institution, he has been participating for the past two months in a study committee on computer monopolies, created during the last Internet Meetings in Autrans (Isère). A working group in which he sees an instrument for "raising public awareness of the need to protect the Internet, as it is". That is to say, for the researcher, a "free and open tool, allowing innovation" and whose technical standards are in the public domain. Obscure expert considerations? No, the project is above all political. "Making technical choices on the Network also means making choices for society," he insists. "Urban planning, for example, is never innocent: building a road between a rich neighborhood and a poor neighborhood is not insignificant. It is exactly the same for the technical planning of the Internet. And it is up to the States to take charge of it, not the companies!" His detractors assure him: Bernard Lang does not like companies. According to one of them, he is even "an ideologue viscerally opposed to the market economy". He vigorously denies this, arguing that IT monopolies do not originate in the market economy itself, but in its distortion. According to him, it is the high concentrations in the IT sector that prevent the emergence of any competition. The business world, however, has never really attracted him. After his preparatory classes, he joined Sup Télécom, an engineering school that generally offers its students prestigious careers in industry. But he preferred the austerity of research to the comfort of a position in a large group. "At the end of my studies, as soon as I learned about the creation of Inria, I knew that this was where I wanted to work," he confides. As soon as he arrived there, in the early 1970s, Bernard Lang worked on the tree structure and structuring of documents. Research that, despite the incomprehension it aroused at the time, foreshadowed a language that was the basis of the Internet: HTML... Later, in the mid-1980s, he changed disciplines and became interested in the computer processing of natural language. At that time, he experienced the "proprietaryization" of knowledge for the first time. "To do computational linguistics, you need a huge amount of data, grammars, lexicons, etc. Because to work on one link in the chain, you need the entire chain," he explains. But, already, American universities were encouraged to "protect" some of their results and the compartmentalization between laboratories weighed on him. He remains, even today and despite everything, responsible at Inria for the Atelier d'outils logiciel pour le langage naturel (Atoll) project. a clear conflict of interest But it is no longer in the guise of a researcher in linguistic computing that Bernard Lang is generally presented. When people talk about him, it is generally to designate him as an irreducible enemy of Microsoft. A shortcut that he disputes. "It is wrong to present me in this way. That Microsoft uses and abuses its position is, he says, of course scandalous, but I especially blame the political actors, who do not do their regulatory work. Microsoft is there to make money and that is the only thing we can expect from them." Between Bernard Lang and Bill Gates' firm, we can nevertheless speak of a clear conflict of interests. The privileged terrain of this opposition: the patent on software. The co-founder of AFUL, a militant user of Linux, is one of the fiercest opponents of what administrative jargon calls "the extension of the notion of patent to inventions implemented by computer". And this, contrary to the intense lobbying work carried out by Microsoft, but also IBM, Thales and other major industrialists. Unlike the fight against patenting on living things, which is the subject of vigorous public debate, this fight remains foreign to the general public. Technical, complex, the issue is not one that excites. "The difference with the debate on the patentability of the genome is religious," he analyzes. "As soon as we touch on nature, on Creation in short, the mobilization is always stronger." Despite this lack of interest from the majority, "inventions implemented by computer" are still protected, in Europe, by copyright alone. The European Commission, which is presenting a directive on the question of software patents, is coming up against the opposition of an ever-increasing number of activist groups. Bernard Lang is one of them. And when he talks about this fight, he becomes more voluble. He argues, gives a thousand examples, cites economists' reports in abundance, wants to convince at all costs. "The software patent will kill innovation by allowing large groups to place barriers around technologies that they consider important," he assures. "By wanting to patent an "intangible creation" like software, we end up patenting the problem rather than its solution!" Above all, he sees in such an extension of intellectual property a formidable weapon against free software - these free and open programs that compete with those of large publishers - whose distribution could be blocked by counterfeiting attacks. The defeat of free software would represent a major failure for him. Because this software is the guarantor of the technological independence of the Old Continent vis-à-vis American companies. "With free software we are able to achieve what it was impossible to do with Bull, with large subsidies," he explains. In some respects, this commitment is a fine bow to the institute where he has spent his entire career. Because Inria was founded in the late 1960s by General de Gaulle to ensure France's technological autonomy. In his own way, Bernard Lang says he is fighting, thirty years later, to preserve that of Europe.

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Nearly 400 participants at the FIHT-Comdex are presenting their new products in software, equipment and professional solutions. Their main target: companies that are expected to invest more in computer workstations this year after a dismal 2001. Visitors walking the aisles of Hall 3 at Paris Expo, where the show is being held, will easily imagine that after a gloomy year, the IT market is picking up again. Nearly 400 exhibitors are presenting a wide range of new hardware, software, products and services in the fields of the Internet, networks and professional equipment. All the products presented at Comdex demonstrate the exhibitors' determination to ward off 2001, which was marked by a serious decline in sales of IT products, particularly PCs. The research firm IDC estimates that the market recorded a decline of -1.6% last year, whereas it has experienced sustained and regular growth for twenty years. The phenomenon is even more marked in Europe, where sales fell by 12% between September 2000 and September 2001. In this respect, we should note the exceptionally good health of French IT service and engineering companies, even if their growth, estimated at +13.5% last year, could slow down. For Syntec Informatique, the slowdown in the global economy will begin to affect the software and services sector this year, with growth estimated at between +7% and +10%. However, the attacks of September 11 and the war in Afghanistan, which caused a slowdown in the global economy and called into question IT investments, have prompted business leaders to question the quality of their equipment, and in particular its ability to cope with attempts at destabilization. This is why they will devote a large part of their spending this year to improving IT security. According to the investment bank Merrill Lynch, strengthening security has become the main priority for IT investments this year, which should increase by 3% compared to last year. To address this concern, several manufacturers are presenting network solutions and peripherals designed to protect data or respond to hacking risks. Strengthening security Known for its Multimedia Internet keyboards, Cherry offers keyboards with smart card readers, fingerprint readers and bar code decoders, which can be used for various applications, from loyalty card identification to system security and electronic wallets. In the same vein, Eurequat Technologies is launching its new range of P205 PVC badge printers, which are particularly economical and can be used to produce loyalty, access control and membership cards and meet customer identification, security and loyalty needs. As for storage devices, they remain an ideal solution for recording, archiving and sharing data while protecting them from viruses and hackers. In this area, Iomega will notably present its Zip 100 and 250 MB backup units and its CD-RW burners. Merrill Lynch emphasizes that companies are also preparing to devote more efforts to ERP (Enterprise Resource Management) applications, Internet developments, operating systems and storage. Nearly half of the IT managers of the companies surveyed say that they will invest primarily in software. In fact, the evolution of economic models, linked to the emergence of e-business, encourages companies to adapt their software environment. Business management now involves better integration with the Internet and optimizing customer relations. On this subject, you will be able to visit the HotWare stand, which will exclusively present the new version of its HelpDesk software which now takes into account the Web client. This product is aimed equally at internal IT departments and structures dedicated to external support, integrating teams of 2 to 25 teleoperators and more. For its part, Nomino Technologies will exclusively present a range of tools designed to assist visitors who consult a website. Nomino Assistant Web is used to accompany Internet users with a virtual character during their navigation, Nomino Search allows you to carry out searches in natural language, Nomino Response to answer Internet users' questions and Nomino Email to automatically process electronic messages. "Web agencies" and multimedia creation companies will be particularly interested in the new version of Photoshop, Adobe's flagship software considered the best product for graphic creation and manipulation. Photoshop is enriched, in its version 7.0, with new editing tools, increased customization options and a powerful file management system. Specifically designed for graphic design studios, news organizations, and advertising agencies, Photoshop also makes it easier to produce high-quality documents for print, the Web, mobile devices, and other media. New tools for new strategies The concept of the mobile enterprise is increasingly appealing to industrial groups. Salespeople in the field, experts on the move, and employees on assignment are now equipped with mobile devices that allow them to access their company's information system, transmit information, order products, or query databases remotely. Professional software publishers such as Oracle, PeopleSoft, SAP, and Siebel have seized the opportunities of this trend. They are beginning to provide extensions that allow their applications to be integrated into laptops, PDAs, and cell phones. The deployment of the networked enterprise, both in terms of infrastructure and organization, is giving rise to a host of new applications, whether virtual private networks, voice-data integration, or wireless connections. Several exhibitors are unveiling their solutions that take advantage of the most cutting-edge technologies, from GPRS to Bluetooth, including ADSL, the local radio loop and UMTS. As for local networks, they are becoming easier to set up, as demonstrated by the USBnet network kit from the manufacturer Suza International, which allows two computers to be connected via USB ports. More and more publishers are looking at solutions designed to facilitate the circulation and processing of information within the company, whether via the Internet, an intranet or to manage data distributed across various information systems. Among the products in this category, CompuBase's new ASP mode service, the "PASS" offer, provides online access to the compuBase database made up of more than 100,000 companies in the IT and telecoms sector (publishers, services, resellers, manufacturers). The company will also launch its Platinum offer aimed at major manufacturers and publishers in the sector. For its part, GOTO Software, publisher of marketing and e-marketing communication products for companies and tools for Minitel and the Internet, will present a preview of Optiliste, a software designed to extract all e-mail addresses located on a computer or a company network. Finally, PTV Online, specializing in geographic information software and services for mobile devices, is launching "mapguide Intranet", the international version of its new route calculation solution intended for the Intranets of multinationals and large companies. Windows versus Linux But one of the challenges this year concerns the choice of operating systems, illustrated by the participation of Microsoft and a number of developers and resellers of free software. Present for the first time at this event, Microsoft is particularly emphasizing its Internet Appliance Server offering, its professional mobile solutions (Pocket PC 2002, Pocket PC 2002 Phone Edition) and its services for SMEs such as the IT consulting site bCentral, its licensing policy adapted to the needs of SMEs (Open and Open Subscription License) and its technical support. But Microsoft intends to take advantage of the occasion to extol the merits of its Windows XP operating system and its Office XP suite. A study by ZDNet reveals that 54% of companies want to migrate to Windows 2000 compared to 33% for Windows XP. The seniority bonus, according to specialists who emphasize the reassuring aspect of a solution that has already been tried and tested while XP has yet to prove itself. However, Microsoft's new operating system reconciles consumer and professional operating systems. Faster and more reliable than Windows 98 or Windows Me, it actually takes over some of the basic elements of Windows NT and Windows 2000, such as the 32-bit kernel, and is enriched with many functions that make it more user-friendly. Among its improvements, we will note the emphasis placed on the network with more efficient peripheral management, multi-user customization and Internet connection sharing. Linux fans oppose the software giant with arguments that are increasingly sensitive to companies. Linux has the advantage of being more economical (no license fees) and easier to customize (its code is open unlike Microsoft products or other Unixes). Supporters of this operating system can count on the new distribution of Red Hat Linux 7.1 Deluxe Edition, which is easier to install and comes with a series of ready-to-use software such as the StarOffice 5.2 office suite, the Mimer SQL 8.2 database manager or the InSight Portal Server 1.0 Web portal development tool. This version recognizes USB devices and is distinguished by increased security. Linux is no longer just spreading to a number of sectors, particularly Internet services, administrations and universities, it is gradually competing with Unix systems and Microsoft software. The research institute IDC estimates that budgets devoted to Linux-related hardware, software and services should grow by 9% in 2002. And several publishers and manufacturers such as IBM, Oracle, SAP, Intel or Corel are increasingly planning specific versions of their products for Linux. They no longer hesitate to praise its merits: IBM is said to have spent a billion dollars on Linux projects in 2001, and network and telecom operators are starting to take a close interest in it. Alcatel, Cisco and Nokia have just joined the OpenSource Development Lab group, which brings together Intel, IBM, Nec and HP, among others, and which aims to improve the stability of free GNU/Linux operating systems intended for high-end servers. For its part, the Prologue Software Group will present a new structure, Prologue Technologies, devoted in particular to the development and marketing of its Linux solutions. A study by ZDNet reveals that 54% of companies want to migrate to Windows 2000 compared to 33% on Windows XP. The seniority bonus, according to specialists who emphasize the reassuring aspect of a solution that has already been tried and tested, while XP has yet to prove itself.

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For several months, the World Wide Web Consortium (W3C) has been thinking about adopting proprietary technologies as Internet standards, the patents of which are held by private interests. This is a cultural and economic change that contrasts with the early days of the Web and worries associations such as Bernard Lang's Association francophone des utilisateurs de logiciellibres (AFUL) or the Association pour la promotion de la recherche en informatique libre (April). Such provisions could allow large companies to tax use of the Network and annihilate competition from smaller companies. The historic British operator British Telecom has thus unearthed a patent on the hyperlink and is currently trying to assert its rights in court by suing the access provider Prodigy for infringement. In the same vein, a consortium of IT giants, owners of the patents on the MPEG4 compression format, recently announced their intention to tax two euro cents for each hour of video compressed in this format and broadcast on the Internet!

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1945: born in Périgueux. 1964: preparatory classes in Strasbourg. 1965: entry to Sup Télécom. 1974: entry to the National Institute for Research in Computer Science and Automation (IRIA). 1987: start of research in computational linguistics. 1998: creation of the French-speaking Association of Free Software Users (AFUL). 1999: election to the board of directors of the French chapter of the Internet Society (ISOC-France). 2002: participation in a committee studying computer monopolies.

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The State and politics have not escaped the Internet, and the past year has seen France commit to a voluntary plan to "internetize" the administration. And the election campaign has seen digital promises flourish. In the process, a whole vocabulary of the e-state has been generated, to be mastered if we want to understand what it is all about. Electronic administration. Administration in short evokes dust and Courteline. Dubbed with the adjective electronic, it instantly switches to modernity. And gives rise to the multiplication of conferences. Do not forget to specify that new technologies are "a lever for the reform of the State". Act I: open lots of sites "to bring the administration closer to users" (see Networked State). Act II: faced with the chaos generated, harmonize and unify. Act III: wonder if we have not forgotten to train civil servants. Bercy. Sometimes called the Ministry of Finance, it is a factory of funny slogans. "Bercy is cyber" (Dominique Strauss-Kahn). "The e-ministry" (Laurent Fabius). When you work for another ministry, saying: "We should train civil servants in the Internet, but it costs a lot of money, Bercy would be pissed off." NTIC advisor. Usually a man in his thirties who is not a big shot. Any prominent politician (minister or candidate in an election) must hire an "NTIC advisor" (new information and communication technologies). Advantage: he can respond by e-mail to interviews with specialist journalists, pretending to be the politician himself. Generally gets annoyed at having to print e-mails so that his politician can read them. Report (to the Prime Minister). Before becoming an official specialist in electronic administration, the networked State or participating in conferences, you have to write a report, if possible commissioned by the Prime Minister. Patrick Bloche, Thierry Carcenac, Christian Paul and others have become "MM. Internet" thanks to their reports. Networked State. Opposes hierarchy, Jacobinism, pyramid. The networked State "brings the administration closer to users" and puts "the user at the center of the administration". Derived: reticular. Repeat three times in a row, out loud and without laughing: "The administration must move from a silo organization to a reticular organization." Specify that, to do this, it is necessary to think about training civil servants. Godefroy Beauvallet 30 years old. Advisor to Michel Sapin at the Ministry of Civil Service Polytechnician, engineer of the telecommunications corps, this great connoisseur of the Internet has the gift of expressing complex ideas with clarity. It is he who, behind Michel Sapin, gives birth to the online administration. His role: to give the minister good ideas to facilitate electronic contacts between users and the administration. He receives "lots of people who have great ideas", summarizes, submits to the minister, adjusts ministerial positions, orders reports, works with rapporteurs... In short, he knows everything inside out. The goal is that by 2005 his fellow citizens will have a full range of administrative services to consult, perform, monitor and archive online via the Web. www.fonction-publique.gouv.fr Patrick Bloche 45 years old. National delegate of the PS for new technologies During the 1997 legislative elections, no one remembers it, but the Socialist Party already had a small bit of an Internet program: it had been concocted by Patrick Bloche, supported by a few activists from the section of the 11th arrondissement of Paris that he led at the time. Five years later, the Internet is present in (almost) all programs and Bloche still wants to be at the forefront on the subject: co-host of the campaign site of candidate Jospin, spearhead of the PS program in terms of new technologies, he has continued to make this "niche" flourish, which he chose much earlier than most politicians. www.patrickbloche.org Thierry Carcenac 52 years old. President (PS) of the Tarn General Council Here is a man satisfied with the electronic turn taken by the State services. And for good reason, his recommendations were heard. In June 2000, Lionel Jospin had indeed asked Thierry Carcenac to lead a reflection on the means of networking the administration. The "Carcenac mission" had advocated the use of free software. Today, it is done: "And not only at the Ministry of Education or Culture. At Bercy too!”, rejoices the Tarn MP, not sorry to have converted the Finance people. One regret: “I thought it was possible to go further by appointing a minister or a secretary of state to oversee the development of new technologies. This revolution generates fears and questions. A ministry could be exclusively responsible for it.” Carcenac report: www.internet.gouv.fr/francais /textesref/rapcarcenac/ Sebastien Crozier 34 years old. NTIC advisor to Jean-Pierre Chevènement Why him? Almost all the presidential candidates have their Internet advisor. But the career of Sébastien Crozier, who joined Chevènement in June 2001 “when he was at 3%”, is original. Former telematics expert, founder of Internet Telecom, a specialist company sold to France Telecom for quite a bit of cash, and former member of the RPR, he believes that "the self-referentiality of markets can cause havoc", as proven by the "Internet madness". For Crozier, the nation is the only "counterweight" to the "brutality of markets". That's good: Chevènement defends the nation, precisely. As a result, Crozier put his knowledge of the sector at the service of the Republican Pole candidate: cat organisations to make it modern, contribution to a high-tech programme resolutely anchored in public service, etc. www.chevenement2002.net Jean-Pierre Mattenet 45 years old. Project manager at the Directorate of Teaching Personnel Initially, a mini meeting in Jean-Pierre Mattenet's office between three DPE employees and the Minister of Education. We discuss a way to facilitate the management of teachers' careers. Levels, transfers, inspection reports: teachers have repeated contacts with their administration. However, they often take information from where it is centralized: in the union organizations. From this observation, the i-Prof project was born: an Internet portal that allows teachers to access the information that the administration holds on them. They can intervene on certain data and communicate online with their correspondent. It is tested, for secondary school teachers, in 9 of the 30 rectorates and 12 of the 100 primary school academic inspections. I-Prof should be generalized in 2003. www.education.gouv.fr/personnel/iprof/present.htm Christian Paul 42 years old. Secretary of State for Overseas Territories In the stable of "young" socialist stallions, Christian Paul is part of the technoids, with Patrick Bloche in particular. Secretary of State for Overseas Territories, this year he led the note from the Jean-Jaurès Foundation (one of the PS think tanks), entitled Towards the digital city: a text intended to give political content to the information society and to highlight some divisions between a left-wing Internet policy and a right-wing Internet policy. A very important job, to say the least, during an election campaign. On the same subject, he was rapporteur for the bill on electronic signatures in 2000 and led the report On Law and Freedoms on the Internet, submitted to Lionel Jospin the same year. www.jean-jaures.org What does Jacques Chirac think of the Internet? Just ask Valérie Pécresse. If he stops getting his teeth into a tangle, it's thanks to his young research officer at the Elysée. Since her arrival at the President's side in 1998, she has brought the candidate-president back into the digital mood, with high-tech lunches with entrepreneurs and speeches on the "digital divide", a modern version of his social divide of 1995. Her knowledge of the subject quickly made her a rising star in Chirac's inner circle, very present during the campaign. www.elysee.fr Jean-Paul Faugeres Patrice Flichy Pierre Truche Average age 58. Studying solutions for protecting personal data in the administration An honorary president of the Court of Cassation, Pierre Truche; a sociologist, Patrice Flichy; and a Vendée prefect, Jean-Paul Faugères, have become work colleagues under the authority of Michel Sapin. The Minister of the Civil Service has asked them to think about protecting personal data with a view to networking the administration's services. Objective: to guarantee to citizens that their files will not be crossed behind their backs. A white paper, published at the end of February, proposes to provide citizens with a summary of the exchanges that have taken place on their subject between services. This "information report" would be included in a "citizen account", a nominative and secure document holder. The outlines of this are still vague. www.internet.gouv.fr

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The bubble has deflated. Start-ups, created in the hope of very rapid valuations, have had their day. And investors have deserted the new economy. Despite this generally gloomy assessment, French e-commerce experienced an unprecedented boom in 2001, with a doubling of online transactions. The paradox is only apparent: the emergence of young shoots with varied "economic models" is no longer the order of the day and standardization is looming. Today, there are no more than two or three of them sharing the cake in each category (travel, cultural goods, consumer electronics, food, etc.). However, the French market, limited to 1% of retail trade, remains much lower than in the English and German markets. The low growth in the number of Internet subscribers and high-speed connections is another illustration of this French backwardness. Those who remain are either a few rare specialists in online sales relying on strong technological know-how like Amazon or eBay, or large retailers like Fnac who see the network as a new sales channel, albeit secondary, but complementary. Last year also saw the breakthrough of new e-tailers specializing in a single niche, and who are sticking to it. This is evidenced by the success of Nomatica, the largest online seller of digital cameras. The search for profitability at all costs has become the golden rule. No more question of increasing losses to gain notoriety and market share: it is necessary to e-qua-li-brate. Which very few companies will have succeeded in doing in 2001. Finally, a few activities have succeeded in reinventing themselves on the Net. The market for exchanges between individuals has found a new lease of life with online auctions, the second-hand market a more flexible sales channel without handling. Chapitre dans les livres or Priceminister for DVDs and records are the delight of virtual bargain hunters. The past year has also been marked by a few disappearances. Bol, the online bookseller jointly set up by Vivendi and Bertelsmann, had to close its doors. The same penalty for Cmescourses, the Casino group's food cybermarket. The collapse of online advertising and therefore of free services has brought projects with a very strong technological component back into fashion. The innovations of Exalead in search engines or those of In-fusio in mobile phone games open the way to new applications. Beatrice Bihr 29 years old. President of the Bande passante association She would like her small monthly meetings to last a little longer than the First Tuesdays, which in 1999 and 2000 brought together all those curious about the "new economy". Béatrice Bihr, a young business lawyer, intends to continue to raise awareness of the development of the Internet in businesses and the general public. Between a club for alumni of leading schools and meetings for insiders, Bande passante organizes meetings on specific topics, such as transaction security or online music. www.bandepassante.org Ludovic Bonneton 33 years old. Founder of Manufacture du Web He left a start-up that he had created to found another one. But between Immostreet, the real estate classifieds site launched in September 1999, and Manufacture du Web, a service provider in the creation and management of websites for SMEs, created in April 2001, there is nothing in common. The first had garnered considerable investments: 18 million euros, provided in particular by Europatweb, the fund created by Bernard Arnault. Today, a change of method, Ludovic Bonneton refuses to use venture capital and claims one obsession: profitability in order to be able to self-finance. He says he reached it in October, with a team limited to four people, seventy clients, and a simple idea: "Simplify the language to the extreme for SMEs that do not have an IT director." www.lamanufactureduweb.com Francois Bourdoncle 37 years old. CEO of Exalead This former director of a laboratory in Mines who worked at Altavista in California would never have imagined that he would one day become a business leader. The close interweaving of research, finance and business specific to new technologies nevertheless led him to take the plunge after having finally "raised" 1.5 million euros in September 2000. Specializing in the design of search engines for the Internet, his company of fifteen employees has just pulled off a great coup by landing a contract with AOL France. Unlike the American Google, where "you search for a term a priori," he explains, Exalead allows you to "choose a posteriori" how to direct your search from a quasi-exhaustive table of contents offered to users. A more advanced approach to Internet research that François Bourdoncle also sells to companies for their internal networks. "The portal market is no longer sufficient today, technological projects need outlets to companies to be profitable." www.exalead.fr Fabrice Cavarretta 36 years old. Founder of iPropi His friends wonder if his iPropi site, launched in November, is not too late. In 1999, his idea would have unleashed investors. But he was then running the online bookseller BOL. Today, he is struggling to attract attention. The basic idea: Internet users help you solve a problem. You place your request on the site, Internet users propagate it. we reward the one who provides the solution and the intermediaries. "In 1999, I would have found money faster, but I would have had ten competitors within a quarter of an hour, who would have done anything..." www.ipropi.fr Pierre Chappaz 42 years old. CEO of Kelkoo An almost unique case. An Internet start-up that succeeded with the methods of the boom years: an idea stolen "by looking at the American market", recognizes its founder Pierre Chappaz, several massive fundraisings (30 million euros in June 2000 alone), European development... Pierre Chappaz does not regret having left his position as head of marketing for France and Western Europe at IBM in November 1999. The Internet shopping guide Kelkoo, present in eight European countries, today claims a turnover of 7.7 million euros. The recipe: direct Internet users to merchant sites for their online purchases and take a commission when a visitor lands on a merchant site through it. After colossal investments, the site has been profitable in France since September, explains Pierre Chappaz, now head of a company with 115 employees. www.kelkoo.comC.A. Christophe Cornuejols 41 years old. CEO of Nomatica Growth in the niche. Unlike these e-commerce generalists who see their salvation in the multiplication of products offered, Christophe Cornuejols is ploughing his furrow as a specialist. Created in 1999 with a few thousand euros, his Nomatica site is today the largest French online seller of digital cameras and camcorders. In just two years, this former aeronautical engineer based in Toulouse has made a remarkable breakthrough in this booming market, well in line with the new uses of images that have appeared with the Internet. With a quadrupling of its turnover in 2001 to 13.2 million euros and a result still profitable, Nomatica is already no longer a small player on the Internet. After a successful establishment in Great Britain where this SME of 32 employees realizes a quarter of its activity, Nomatica now plans to grow in Germany and in Hispanic countries, as far as South America. www.nomatica.fr Yseulys Costes 29 years old. CEO of millemercis. com A good idea and a lot of tenacity. This is how this marketing researcher who has been to Dauphine and Harvard and is a teacher at HEC managed to impose her millemercis. com. However, the project was not at all obvious: a gift list service on the Web. 300,000 Internet users subscribe to it for free and spread their gift ideas "virally" from one person to another. Gifts that can be found on more than 70 partner sites, which pay a commission to millemercis.com on purchases made. A specialist in collecting personal data and purchasing behavior, Yseulis Costes also resells her highly qualified files to other e-retailers. "Only if subscribers want it," she swears. Two years after its debut, the site has been breaking even since the end of 2001. A success that it owes in part to Marc Simoncini, its very wealthy business angel, who has become a multimillionaire since the resale of Ifrance to Vivendi, and who put in 1 million euros to get the machine going. www.millemercis.com Carlos Da Silva 36 years old. CEO of Go Voyages Having arrived in France from his native Portugal at the age of 18 without a penny or the slightest diploma, this formidable poker player climbed all the steps that led him to the head of one of the most profitable companies in French tourism (5.7 million euros in profit for 126 million euros in turnover in 2001). If the success of this wholesaler of cut-price flights cannot be explained solely by the Internet, Go Voyages already generates 30% of its business there, with a search engine and "white label" flight reservations from 400 portal sites, travel agents, e-tailers... A more profitable strategy than that of Travelprice and other Anyway companies that have relied on their own sites to impose their brand. "The cost is too high compared to the margins, it is better to multiply on the Internet, even if it means seeing your name disappear." www.govoyages.fr Jean Davoust 57 years old. President of Musique en ligne For about ten years, he has been one of the only Europeans in the establishment of major record labels to promote the rapprochement between the world of new technologies and that of publishers. A true craftsman in France before 1995 of the sale of musical scores by interactive terminals and the rapprochement with producers of musical software, he was long caught between the rigidity of his traditional publisher colleagues and the ignorance of the trade of works by the young bosses of the Net-economy. This ex-boss of Warner Bros, then until 1998 of Warner Chappell Music France (the most beautiful editorial fund in the world, with Brassens, Gainsbourg, Vian for France), came back in force in 2001 by launching www.musiqueenligne.com, while music on the Internet was lacking an economic model. It offers scores and MIDI or MP3 files to download, online courses, details the production chain of the works, and provides information on the rights to be respected. www.musiqueenligne.com Juan de Corbion 40 years old. CEO of Chapitre He loves books as much as technology. He brought them together on chapitre.com, an online bookstore with 40 employees whose particularity is to carry out 75% of its business in old and out-of-print books. After nine years spent "managing the technical side" at the publisher Actes Sud, this Belgian had the idea of setting up this online store combined with a network for searching for out-of-print books to which 2,000 booksellers representing 15 million works have joined. Between his activities as an intermediary for the profession and those of a seller of new books, he brought in 5.3 million euros in his coffers last year. And transformed a Parisian bookstore in the Latin Quarter into a research cybercafé to better pamper its many bibliophile customers. "I weave the web of books in all directions, on the network as well as in store," he says, "I am a bookseller of my time." www.chapitre.com Henri de Maublanc 51 years old. President of Aquarelle The multi-card of the commercial Internet. President of the first French online florist, he has also invested in various start-ups and represents electronic merchants at the head of Acsel, the Association for online commerce and services. Formerly in telematics, he raised 15 million euros to develop Aquarelle and reached 5 million euros in revenue in 2001. An active lobbyist, he advocates for high-speed packages, "of the order of 20 euros per month." "E-commerce needs more comfort of consultation," he says, "the trust is there. » www.aquarelle.com Claire Gourlier 27 years old. Consultant For nearly four years, she designed websites for large companies in a Web agency. In 2000, while consulting firms were experiencing a hemorrhage of their executives towards start-ups, she joined McKinsey. By launching her own firm, Euclyd, in September with two partners, she sought to reconcile the best of both experiences: rigor and creativity. www.euclyd.com Jean-Christophe Hermann 40 years old. CEO of Fnac.com President of Fnac.com, this salesman keen on new technologies is at the head of one of the heavyweights of French e-commerce. His virtual brand is among the top 20 largest Fnacs in France and generated 40 million euros in revenue in 2001, equal between high-tech and cultural products. A tireless promoter of his "click and store" model, he sees his online doorstep as an opportunity to bring new customers to Fnac, "and vice versa, of course". A steamroller with colossal investments, but whose first profits are not expected before 2003. www.fnac.com Pierre Kosciusko-Morizet 24 years old. Chairman of Priceminister A sort of Fnac of second-hand goods, this post-bubble start-up has specialized in second-hand sales on the Web. Founded in 2000 on the model of the American half.com, it is run by this young entrepreneur trained in the Internet in online banking. It now generates 700,000 euros in monthly turnover, solely in commissions. Internet users have put 400,000 second-hand products (books, records, DVDs, etc.) up for sale there at half price at most. 450 publishers and wholesalers sell their unsold items more discreetly there. "An intermediary activity in which prices must remain low and commissions reasonable, around 15%." With its 3.4 million in venture capital and a balance announced for June, Priceminister is targeting Europe. "We are the only ones in this niche," he notes. www.priceminister.com Jacques Le Marois 33 years old. CEO of Mandrakesoft Jacques Le Marois created Mandrake Soft in 1998 to create and distribute a home version of the famous Linux, the alternative operating system to Microsoft's Windows. He is trying to reconcile the way free software works, based on volunteering and free services, with the capitalist mode of production. www.mandrakesoft.com Thomas Lot 42 years old. President of Amazon Europe and Amazon France He is on the most beautiful ejection seat in French e-commerce: the presidency of Amazon. fr, combined with that of the English and German sites, leaders in their countries and balanced. After exhausting two captains in three years, Amazon called him to get the French bad boy out of the red. When? "The sooner the better." www.amazon.fr Christophe Poupinel 34 years old. CEO of Château Online Having worked in cosmetics and consulting, this pure salesman joined the company in 1999, recruited on the advice of his financial backers. Former sales director, he must bring the site to balance, "around 15 to 20 million euros in annual turnover" (compared to 10.5 million euros in 2001). With the former sommelier of the Ritz in charge of vintages, he plans to continue to expand the offer, particularly in New World wines, strengthen its presence abroad and better serve major customers who love primeurs. www.chateauonline.fr Gilles Raymond 33 years old. CEO of In-Fusio The boss of this SME with 130 employees sells video games for mobile phones as far away as Asia. Representative of the wave of start-ups that appeared with Wap, In-fusio survived its commercial flop and developed a system that allows you to download games onto your mobile phone before playing them once disconnected. This strategy opened the doors to telephone operators. With 89 games in its catalog, In-Fusio hopes that new telephony standards will boost the emerging market for paid mobile games. www.in-fusio.com Denis Wathier 41 years old. CEO of Voyages-SNCF.com This engineer by training did not make many friends by organizing the online marriage of the SNCF with the American e-tour operator Expedia. "There is a creaking in the profession," he admits, "proof that we hit the mark." "But if the SNCF has proven its efficiency in selling tickets on the Net (170 million euros in turnover in 2001), it still has to demonstrate that the new version of the site, enriched with stays and plane tickets, will meet with the favor of customers. The site aims for 300 million in revenue in 2002, "of which 10% is non-rail". www.voyages-sncf.com

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Washington - The opening salvos rang out yesterday in a Washington courtroom as the new antitrust trial against Microsoft opened, with the states' plaintiffs saying they "were not here to destroy Microsoft," but Microsoft arguing that their demands would have "a devastating impact on the PC ecosystem." "Microsoft knew that extreme measures were necessary to preserve its monopoly" and "used a virtual arsenal of illegal weapons" to do so, said Brendan Sullivan, the states' attorney, in his opening argument. Dan Webb, Microsoft's attorney, said the sanctions sought by the states "would force the company to take Windows off the market." He said that possibility would be raised by Bill Gates, the company's co-founder and current chairman, who will testify at the trial. CEO Steve Ballmer will also take the stand. The nine plaintiff states (California, Connecticut, Florida, Iowa, Kansas, Massachusetts, Minnesota, Utah, West Virginia), joined by the District of Columbia - a territorial entity of the federal capital Washington - had refused last November to join the amicable agreement concluded between Microsoft, the American government and nine other states, considering that it was too favorable to the world number one in software. These states sent yesterday to Washington several of their attorneys general (Ministers of Justice) most involved in the proceedings against Microsoft, in particular Richard Blumenthal (Connecticut), Tom Miller (Iowa) and Tom Reilly (Massachusetts). "Sanctions must create a favorable environment for competition and they must be fair and effective", declared Brendan Sullivan before federal judge Colleen Kollar-Kotelly in charge of the case. The states are primarily demanding that the company be required to offer a "modular" version of Windows, which would be customized to users' wishes, in addition to the traditional version that includes other functions such as Internet browsing and e-mail. "Your honor, that is impossible," Webb told the judge, estimating that this would require Microsoft to provide "4,096 versions" of Windows, counting all the possible permutations between the different software integrated into the operating system that equips nine out of 10 computers in the world. Dan Webb also said the states' request to make Windows' Internet Explorer open source software and its source code into the public domain would "unfairly confiscate billions of dollars of Microsoft's intellectual property." Microsoft's lawyer, who asked the judge to dismiss the lawsuit on the grounds that the Justice Department "has exclusive authority to set national competition policy," argued in favor of the settlement, which "without a doubt addresses every single anticompetitive practice" the company committed. Steve Kuney, another attorney for the states, argued that Microsoft's top executives, including Bill Gates, were directly involved in the illegal practices, providing evidence of internal Microsoft emails discussing positions with partners such as Dell, Intel and Compaq. This new legal phase, launched almost three and a half years after the opening of the original trial at first instance, should last six to eight weeks.

## ###ARTICLE\_START### ID:385

Comrades of the multitudes, the network is a nest of rebels. This is the subject of the Thema presented by Arte. The first report focuses on hacktivists (a contraction of hacker and activist), evangelists of liberation through the PC, digital Zapatistas and other clickbait immersed in anti-globalization movements. We discover some of the leading figures of "electronic civil disobedience", such as the electrohippies, tanked in front of their machine on a farm in Wales to prepare a "cyber sit-in" (submerging a website until it collapses). Or the actors of the "toy war", which in 2000 pitted the online store eToys.com against the network activists. Smear sites, massive connections to the site to slow it down... eToys will see its stock price plummet by 25% under the blows of the mouse fanatics. Clever, Ian Walker's report alternates street scenes and interior interviews. Without dodging the difficulty of connecting the street and the Web, the offline and the online. Witness this scene where the Canadian Nart Villeneuve finds himself in the middle of a demonstration, standing on the road, tapping away on his laptop. As if disconnected from the agitation around him. La Thema continues with another mix of politics and IT: the saga of Linux, this alternative operating system to Bill Gates' Windows and the fruit of the collaborative work of thousands of volunteers around the world. Connected by the Internet and the desire to thumb their noses at Microsoft. The story of a nice guy and some bearded guys. The nice guy is Linus Torvalds, the computer scientist who initiated a project that will transform him into an icon. The bearded guys are the heirs of the protest on the West Coast of the United States, keyboard addicts who politically carry the project. Like Richard Stallman, a sort of official guru, determined, according to a close friend, to "annihilate the corrupt capitalism of the American computer industry." Failure: the documentary dwells on complicated technical details, or on simple-minded people. And only sketches out what is at the heart of Linux's success: the proof that cooperative, non-commercial production can supplant the pure capitalist mode of production promoted by Gates. Without dwelling on the links woven between these opponents of the commercialization of software and the Seattle generation. And yet, during the Porto Alegre summit, Stallman talked about patents, non-commercial exchanges and GMOs. Thus proving that the "network of networks" (the Internet) is one with the "movement of movements" of the anti-globalization struggle.

## ###ARTICLE\_START### ID:386

Should we be against software patents? Yes, almost all the presidential candidates answer. But each has his own argument, revealing his political convictions. Inventory. Jospin: "a brake on innovation" Whether at Matignon or within Lionel Jospin's campaign team, this is the main argument: "Software patents slow down the diffusion of innovation." In other words: if they were implemented, they would force companies to check that each brick of their software does not encroach on the territory of a product already protected by a patent. Companies would have no choice but to move forward tentatively in their developments. Candidate Jospin's position will not be official before March 18, the date of the disclosure of his program. But, it is specified within his team, this position will merge with that of the government, recently formulated by Christian Pierret, the Secretary of State for Industry: "The French government wishes to reject any project that would have negative consequences for innovation in Europe." Chirac: "no to vassalization" Authorizing software patents, according to candidate Jacques Chirac, would put Europe under the thumb of American companies. These are already large consumers of software patents, in the United States, of course, where they are authorized. And in Europe, where they are the headquarters of the European Patent Office. Chirac, by opposing a no to patents, refuses "technological vassalization vis-à-vis the United States", explains Pierre-François Mourier, at the candidate's campaign HQ. According to him, we must support "free software, the creativity of French and European IT and our technological independence". Chevènement: "The big guys are taking advantage" For candidate Jean-Pierre Chevènement, the introduction of software patents would be "for the benefit of multinationals", underlines Sébastien Crozier, advisor to the candidate of the Republican Pole, shocked by the decision of the "technocrats of Brussels, the antechamber of liberalism". Defending one's patents or challenging those of competitors in court costs money and he underlines that small businesses will be unable to cope. In a press release issued at the end of February, Chevènement stigmatized "the cumbersomeness of the patent filing procedure", which "reserves it mainly for large companies" while "innovation in the software sector often comes from SMEs". Hue: "against selfish commercial calculation" Free software has demonstrated that an alternative mode of production to capitalism is possible. Like the Linux operating system, a competitor to Microsoft's Windows and designed by thousands of volunteers around the world. A mode of production based on sharing and the free circulation of ideas. For the Communist Party and its candidate, Robert Hue, software patents have only one goal: to stifle these new possibilities, "to put scarcity back into a system that allows abundance", as explained by Jérôme Relinger, national delegate in charge of new technologies at the PCF. "The European Union's desire for patents reflects the antagonisms between the centralizing logic of the market, opportunely aided here by public authorities, and the participatory logic of the network, he observes. On the Internet, the possibility of distributing all digital content (knowledge, culture, training, information, software) free of charge opens up horizons opposed to those of selfish commercial calculation." Patents would thus aim to return to a new way of producing wealth made possible by the Internet: "Free software shows that a cooperative mode of production gives more effective results than a mode of production based on drying up and regulation." Mamère: "No to commodification" Software, ideas, medicines, same fight! For Olivier Blondeau, member of Noël Mamère's campaign team (Green candidate), software patents raise this question: "What do we do with knowledge?" Two logics are opposed: the one at work with software patents, which "tends to commodify knowledge." And the one defended by his opponents: "Knowledge has a different nature from material goods. We are obliged to use that created by others to build our own." By granting a twenty-year monopoly on an invention, "the patent blocks the creation of this knowledge." In a press release published on March 1 on his campaign website, Noël Mamère warned: "The draft directive introduces unlimited patentability of all ideas, those of computing, but also methods of organizing work, education, health..." Madelin: "against protectionism" If the candidate of Liberal Democracy, Alain Madelin, has not yet spoken out on software patents, his party's website gives the unambiguous message: it's no. It includes a call to sign a petition against said patents. And for a simple reason: patents and the "monopoly" given on an invention for twenty years are only the manifestation of "protectionism in information services", as François-René Rideau writes in a text published on the party's website. This one calls upon the 19th century French liberal economist Frédéric Bastiat, in order to show that patents, like all "intellectual property barriers" are just as good as "customs barriers at the borders of countries, at the entrance or exit of cities; both are opposed to the free exchange of goods and services."

## ###ARTICLE\_START### ID:387

In the space of a week, what was a confused melee has become a huge mess. At stake: the millions of Internet users who will get free music and films on the network, thanks to file exchange systems. What's new: the companies behind these networks have launched into score-settling that reveals an unfriendly side of this miraculous fair. Decentralization. Successors of Napster but more difficult to pin down because they are based on decentralized architectures, called peer to peer, where each PC is a file distributor, exchange systems are roughly divided into two camps. On one side, that of Gnutella, from the open-source (non-commercial) environment, where players like LimeWire, MacTella or BearShare frolic. This is the camp of the diehards, with interfaces that are sometimes a little rough for neophytes. On the other side, the FastTrack camp, named after the software developed by clever but greedy Dutchmen, with more commercial aims. Kazaa, the creator of the software, Grokster and Morpheus, who live off advertising, are among them. The fight came from Morpheus, the leader. At the end of January, the American company that operates this system (StreamCast Networks) decided to create a technical bridge between the Gnutella and FastTrack communities. Enough to gain a decisive advantage over the competition. Kazaa's immediate response: a technical manipulation allowed it, last week, to crash the entire Morpheus network. An impenetrable thicket. As a result, Morpheus decided to join the Gnutella camp, dragging its crowd of followers into this impenetrable thicket. From 91,000 last Friday, the instantaneous number of users of the Gnutella network jumped to 353,000 over the weekend, according to the Redshift Research firm. Conclusion of Matt Bailey, president of Redshift: from now on, "pirated music can never be eradicated (...) and paid services will have to live with it". After having tamed Napster, the entertainment giants have certainly taken Kazaa and Co to court. But destroying Gnutella will be more difficult. "We are raising a generation for whom stealing will be OK", choked Peter Chernin, CEO of News Corp (Murdoch group), according to whom a million films are exchanged every day on the Net. Hypocrisy. In the meantime, the public authorities in France as elsewhere continue to encourage Internet users to connect to broadband, while knowing full well that this TGV Internet is primarily used for exchanging music and films (with a classic modem, the thing is tedious). With the modesty of a virgin, the French cable and ADSL operators refuse to communicate the share of broadband traffic due to exchange systems. France Telecom only agrees to say that this traffic is "increasing sharply". On university networks, before they were filtered, its share was over 80%.

## ###ARTICLE\_START### ID:388

AT THE TIME of the presidential campaign, the Internet is not just a medium: it is also an issue. The Jean-Jaurès Foundation, a think tank close to the PS, has just published a long note on "the information society", with a preface by Dominique Strauss-Kahn. "The Internet is neither right nor left," says the Secretary of State for Overseas Territories, Christian Paul, who co-chaired the National Assembly's study group on new information technologies. "However, there are political choices to be made and a left-wing vision of the information society to defend." Written by a dozen specialists, including Lionel Jospin's advisers, the document formulates 50 proposals ranging from a ban on patenting software to doubling the back-to-school allowance to provide families with computers. Because, for Mr. Paul, this note is also intended to provide candidate Jospin with a "work plan for the next five years." The ideas put forward in the Jean-Jaurès Foundation note are found in the series of "proposals for the Internet and information technologies" adopted by the national secretariat of the PS. The project proposes to support innovation, in particular by financing public and private research, sets the objective of providing each student with a laptop or making "the online posting of essential public data from local authorities mandatory". Jacques Chirac, for his part, should not take up in his project the "50 proposals to bridge the digital divide", presented in 2001 by Alain Joyandet, but be content with a "symbolic commitment to guarantee each municipality access to high-speed broadband", even if, Mr. Joyandet swears, "Jacques Chirac is very up to date on the subject". For his part, Jean-Pierre Chevènement has published on his site and in the daily newspaper La Tribune a text summarizing his position. The MDC candidate proposes in particular to create a CAPES and an aggregation of computer science and plans to authorize the government to give general objectives to the Telecommunications Regulatory Authority (ART). Noël Mamère defends the "free, civic and united Internet". He thus proposes to consult Internet users to develop an international constitution of the Internet and to create a fund to develop free software. Even if the other candidates for the Elysée have not taken such a clear position on information technologies, several projects nevertheless contain a point on information technologies: whether it is to democratize the Internet to avoid social division, to promote its development to support the productivity of companies or to generalize its use in education. "We would be in favor of the rapid implementation of an unlimited Internet connection offer for less than 15 euros," assures Aurélien Sallé, Alain Madelin's Mr. Internet, who also calls for opening the telecommunications sector to competition "as widely as possible" in order to "rapidly and massively develop high-speed Internet access." UDF MP Pierre-Christophe Baguet, close to François Bayrou, advocates "a computer in every class, from kindergarten to university." Robert Hue promises to "act against the digital divide" by proposing to "lower VAT on computer products." The PCF candidate wants to create a "vast movement of popular education and training around the Internet." As for the National Front, it insists on the need to establish rules to "protect national companies from competition, by taxing all online purchases on a site operated from abroad."

## ###ARTICLE\_START### ID:389

France yesterday officially took a stand against software patents, as defined by a draft directive from the European Commission. Authorizing software patents would have "negative consequences for innovation [...], free software [...] and SMEs," wrote Christian Pierret in a letter sent to the European Commissioner, Errki Liikanen. Many researchers and activists believe that such a project would allow large companies to lock down key functions of the Internet by multiplying the filing of abusive patents.

## ###ARTICLE\_START### ID:390

IBM, the world's number one in IT, is changing its president. Lou Gerstner, who has reached the age limit, is unsurprisingly giving way to Sam Palmisano, a pure in-house product, who was at the head of the services business. In nine years, Mr. Gerstner has straightened out the company's accounts without dismantling it, contrary to what the experts recommended. Today, IBM has regained its former glory and its place on the podium in all market segments. Above all, it makes 40% of its sales in services, a sector with higher margins and recurring revenues. Its competitors are all imitating this repositioning. The merger of Hewlett-Packard and Compaq should make it possible to create a rival to "Big Blue". But the CEO of Hewlett-Packard has a lot to do to convince his shareholders. FRIDAY, March 1, Louis Gerstner, president of IBM for nine years, is retiring at the age of 60. True to his reputation, the man the media nicknamed "Silent Man" did not want to celebrate his departure. He handed over to Samuel Palmisano, 50 years old. A smooth arrival for this eighth CEO of "Big Blue" in ninety-one years. On the man's side, no surprises: Mr. Palmisano is a pure "IBMer". On the company's side, no worries a priori: in 2001, IBM resisted the IT crisis with a slight decline of 4.4% in turnover and 3% in net profit. Mr. Palmisano will therefore have to manage where Mr. Gerstner had to lead a real revolution. When he took over IBM, on April 1, 1993, the world leader in IT was moribund. The inventor of the first PC (personal computer) was overwhelmed by the rise of microcomputing, walled up in his arrogance, undermined by power struggles, entangled in his bureaucracy. From 1990 to 1993, the company accumulated losses of 16 billion dollars and saw its turnover plummet by 10%. A dismantling plan was even initiated to save what could be saved. Mr. Gerstner was appointed as the man of last resort. For the first time, the new leader had not made his career at IBM, he did not have "blue blood". Worse: he came from Nabisco - and was therefore only a "cookie merchant" neophyte in computers. But he was not a business novice. In the early years, Mr. Gerstner was above all a tough manager, shaking up the company culture, breaking the independence of subsidiaries, closing half of the factories, cutting costs and staff. In 1994, "Big Blue" returned to sales growth (+2%) and profits ($3 billion). Over the decade, cutting costs remained a priority: for example, by making 90% of its purchases via the Internet, IBM saved $400 million per year. Only research and development expenses (IBM holds the world record for patent filings) were allowed to grow faster than turnover. Lou Gerstner also proved to be a visionary. His first, crucial decision was to rule out any dismemberment. "Far from the theories of consultants, he listened to the customer," notes Julie Giera, an analyst at the research firm Giga Group. "And companies are looking for turnkey solutions. IBM is one of the only ones who can offer them, as a prescriber, supplier and operator all at once." In this IT bazaar with its disparate activities, it remained to bring synergies into play to present a coherent offer. masterstroke Today, IBM's size and its omnipresence in hardware (from infrastructures to PCs and printers, including components and chips), in software (systems management tools, application integration, Web services, collaborative work, etc.) and in services (consulting, installation and maintenance) are its main strength. The first activity provides IBM with a loyal customer base, the second is the most profitable, and the third drives growth. In addition, its scale protects it from difficulties in this or that market segment. While IBM fell behind Dell in PCs in 2001 and grew more slowly than EDS in services, it nibbled away at Hewlett-Packard and Sun in servers, BEA in application servers, EMC in storage, and Oracle in databases. Mr. Gerstner's second strategic move was considered his masterstroke, envied and copied by his rivals: moving the company toward services. "He understood that computer products were going to become commoditized, leading to fiercer competition and price wars," explains Tom Bittman, an analyst at the Gartner Group research firm. "The value was going to come from service, from supporting products with expertise." In this area, IBM has taken a gamble on a certain neutrality. The world's leading computer manufacturer, it nevertheless includes machines marketed by its competitors to adapt to customer needs; King of the major home operating systems, it also relies on open standards, offering compatibility with its rivals' products (IBM notably invested $1 billion in Linux free software in 2001). Today, IBM has become by far the world's leading IT services company (SSII) and generates 40% of its turnover in this sector. Through the service, IBM can encourage customers to buy its hardware and software, and, since the contracts last five to ten years, it collects recurring revenues. The order book exceeds $100 billion. In the end, IBM is worth almost double that of any other IT company and also posts the biggest profit, neck and neck with Microsoft. As for the stock, it has soared by nearly 900% since 1993, while the Dow Jones has grown "only" 157%. Lou Gerstner, nicknamed "Resurrection Man", will remain the one who made "Big Blue" proud again. Sam Palmisano can therefore count on a solid company, but must face one of the worst economic times for the computer industry, while PC sales are falling and companies are cutting back on their investments. It is difficult, in this context, to turn around IBM's two currently loss-making activities: PCs and components (hard disks and semiconductors). Even more difficult to tackle the only real problem not solved under the Gerstner era: the anemia of sales. Since 1993, the rise in profits has clearly exceeded that of turnover, which has only progressed by a small 4% per year. To remedy this, Mr. Palmisano has indicated in particular that he intends to build offers aimed at SMEs, whose demand for equipment and services is growing by 12% to 13% per year, faster than the overall IT market. This will require a big effort from a company accustomed to selling vast and expensive IT plans to multinationals. And there, the first competitor is... Microsoft. A big challenge.

## ###ARTICLE\_START### ID:391

"Everyone knows pavu.com, but no one knows what it is," asserts Clément Thomas in the preamble to the epic interview with two of the most acerbic and turbulent net artists of the moment, himself, "general officer" of the Pavu.com division and Jean-Philippe Halgand, its "executive director". With its jargon-filled home page in perfect Franglais, mixing hazy economic terms and nebulous artistic concepts, and its hard-hitting actions to create a "free territory of the Net", Pavu.com is perhaps the most ignited site in French cyberspace. The participation of the Internet user is required: "By giving a piece of your server space in the form of bytes, we will be able to gather the Gnu troops in the event of an attack" (1). They both wear the cap, round for the Bordeaux-based Jean-Philippe Halgand, raven goatee and sparkling blue eyes giving him a prankster air; stretched out for the Parisian Clément Thomas, more slender and caustic, borderline mean, the fake creators of the Web are getting their comeuppance, like cultural institutions that are behind on a revolution. These two get on like thieves at a fair to spread a grain of madness wherever they operate: at the Bordeaux School of Fine Arts, they duplicate the official diploma with their PITY ("the Pavu.com Institute for Talents Young"), whose slogan is clear: "Forget the Avant-garde, get ready for the En-garde." The first session, in November, in front of third-year students who we imagine were stunned, was a "cleaning up." In the courtyard, computers on the floor had to be "rebooted with boots." A way of going against the grain of teaching new technologies in art schools? The workshop continued with the mottos: "You copy, you take one" or "Go forward and watch back." Then, to "learn how to get by with the Web", a close-combat exercise, just to "let young people know that a domain name can be stolen from you". The third stage, which will depend on the students' support, is based on the university calendar: a P-degree will sanction "entry into the jungle of information, into the more is less". Will the first graduates be as switched on as their masters? l (1) The GNU project, recursive acronym the GNU's Not Unix, has been developing an operating system similar to Unix, but in free software, since 1984. The zazous of Pavu.com have therefore invented a logo featuring the Gnu...

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The three of them, penniless, Niklas, Janus and Edwin invented Kazaa, a software for exchanging music, photos, videos and novels so popular that it has already overshadowed the famous Napster. KAZAA does not mean anything, but we wanted to give our software a name that was easy to pronounce in all languages. Our company has a more understandable name, Fast Track: here, the message is clear, we like things to go fast. Niklas Zennström, 35, Janus Frijs, 25, and Edwin Matselaar, 27, are not yet rich or famous, but in less than a year, Kazaa has become the most frequently downloaded program on the Internet worldwide. It is the latest in the family of peer-to-peer sharing software, which allows Internet users to directly exchange an unlimited quantity of digital works - music, photos, videos, novels, software - thus creating informal distribution networks beyond any control. In December 2001, Kazaa had 70 million users who exchanged billions of files day and night, mostly songs copied from commercial CDs... Niklas the Swede and Janus the Dane met in Copenhagen in 1997, when they were working for the Internet branch of a telecom operator. Tasked with creating subsidiaries in Northern Europe, they quickly formed a close-knit team: they went together to Luxembourg, then to Sweden, Estonia, the Netherlands... At the same time, the two friends dreamed of independence: "We hatched dozens of grandiose projects, during entire nights, in all the bars of the North Sea and the Baltic." At the end of 1999, while they were living in Amsterdam, they discovered Napster, the first major system for exchanging music between individuals, which would soon become known throughout the world, because it bypassed the entire music industry chain and flouted all laws on copyright and copyright. In Niklas' mind, something clicked: "I understood that, thanks to Napster, the Internet was going to establish itself as a daily entertainment medium for the general public. It was a complete upheaval. » At the same time, he immediately identified Napster's weaknesses: "It worked thanks to a single, centralized catalog, hosted on a single server. All it took was to unplug it and everything would stop." But Niklas knew that, elsewhere, different teams were developing other "peer-to-peer" networks that were much less vulnerable, because they were encrypted and decentralized. But they had little chance of appealing to the general public, because they were very complex to handle. So, one evening, the brilliant idea came quite naturally: they had to invent software that was as easy to use as Napster and as invulnerable as the systems reserved for specialists... Now, there were three of them making grandiose plans, because Niklas had just married Catherine, a French woman who also worked in telecommunications. In the spring of 2000, Niklas and Janus decided to set up their company in Amsterdam and devote themselves full-time to Kazaa: they had some money set aside, and Catherine would continue to earn a salary... To create the ideal software, they knew they would need help. They contacted groups of freelance programmers on the Internet and put together a team of Americans, Balts, Romanians, Scandinavians... They were expensive, but they worked quickly and well, Kazaa took shape. Then Niklas and Janus hired their Dutch friend Edwin. The Internet was one of his two passions - the other being experimental underground techno music. During the week, he worked tirelessly for Kazaa, but on weekends he was a DJ at Amsterdam rave parties. In September 2000, Kazaa was ready. Niklas and Janus opened a showcase site, Kazaa.com, where Internet users came to find out more and download the software: "We were counting on the dynamics of the Internet, Kazaa was the best, everyone would know about it very quickly. Even a beginner could master it without any problem in a few minutes, whether to obtain a work or to give it to others." Behind the scenes, the system was more complex. All the computers equipped with Kazaa formed a decentralized network, practically invulnerable, because it operated without a central server or obligatory passage point. In each geographical area, Kazaa automatically detected a computer with a good connection and assigned it a specific role: it became a "supernode", the center of a temporary mini-local network bringing together users in the area. If a supernode disconnected from the network, the system found a replacement for it in a few milliseconds. Once the requested file had been located, the transfer was done directly. Fast Track therefore did not intervene in the process: "We simply distributed software. The network itself creates itself and operates outside of us." The reality is more ambiguous, because, on a commercial level, Niklas and Janus intend to maintain a key role. For music, their model is simple, it is that of the radio: "People listen to music without paying, but in exchange, they consume advertising. Then, the radio pays part of its earnings to the rights holders. It will be the same for us: as soon as an Internet user opens Kazaa, ads appear on their screen, because they connect without their knowledge to an advertising server. Advertisers pay us for this. Like the radios, we will also pay a share of our revenue to the rights holders." To legitimize their company, they contacted Buma-Stemra, the Dutch authors' society, and offered to pay them royalties based on their future revenue. The initial reception was rather favorable. HOWEVER, at the beginning of 2001, this scenario was still theoretical, because Kazaa was not taking off, money was starting to run out. Catherine found a better-paid job in Stockholm, Niklas decided to follow her. As a result, Janus returned to Copenhagen, Edwin remained alone in Amsterdam. The three friends then created a "virtual office": thanks to the Internet and mobile phones, they continued to work together from morning to night. In the spring, a small company in Tennessee, Music City, offered to buy a distribution license for the American market. Niklas, who was penniless, accepted immediately. In the United States, Kazaa changed its name and became Morpheus. Niklas repeated the operation with a Californian investor, and the software acquired a third name, Grokster. Despite these multiple labels, the system, technically, remained unified. Suddenly, in the spring of 2001, everything changed: word of mouth finally worked, Internet users discovered Kazaa, a first contract was signed with an advertising agency. This success coincides with the decline of Napster, entangled in its lawsuits against the music industry: "Napster users emigrated to us spontaneously, we don't know how they found us." By the end of the summer, Kazaa had tens of millions of users. It contains the complete works of all the fashionable Anglo-Saxon groups, but also stars from previous decades, rock classics and even crooners of yesteryear: "From Britney Spears to Frank Sinatra. Old people don't come directly to Kazaa, they ask their children to find their favorite songs or to put them into circulation." Kazaa users also like Mozart, Vivaldi, Chinese opera. Little by little, music from all over the world appears. French artists are very present, from NTM to Georges Guétary. In addition, Kazaa carries everything that can be digitized, starting with images: "The majority of the photos show athletes, cars and naked girls. This is proof that we are reaching the general public." Internet users with high-speed connections exchange copies of DVDs, mainly of recent American films, such as Matrix or Moulin Rouge. A few texts of fashionable novels appear, and, of course, pirated copies of video games and software abound. EXCITED by success, Niklas and Janus decide to go to Los Angeles, in the hope of opening negotiations with the major music and film companies, on the same basis as with the authors' society Buma-Stemra. They obtain appointments with senior officials, but the negotiations drag on. After a month, they learn from the press that they have just been sued for copyright infringement by the very people with whom they were negotiating in good faith! The shock is harsh, but they decide to stand their ground. Their Dutch lawyer jumps on the first plane: "I must admit that the summons impressed me," he says. "There are about fifty plaintiffs, including all the big names in Hollywood: Disney, MGM, Fox, Paramount, Time Warner, Sony, Virgin..." However, after analysis, the situation is not so tragic: "The complaint was filed in California, but not in the Netherlands. However, one of the principles of civil law is that a company must be able to defend itself in its own country. It will take months for the complaint to reach Amsterdam through official channels... In the meantime, I have contacted American colleagues, who will help me." Niklas finds it hard to believe that the Majors are so blind: "If they managed to eliminate us, our successors would be much worse. Already, a group of hackers, libertarian activists, has set up a project called Gift. They have started to break the encryption of our system and are creating a clone of Kazaa. Their version will be free and open software, which anyone can modify endlessly. If we are no longer here, no one will control anything." Back in Europe, Niklas and Janus discover that Buma-Stemra, no doubt intimidated by the Americans' action, has broken off negotiations. Without hesitation, Niklas files a complaint with the Dutch courts: "Buma is not a private company, it is a parapublic organization, which is obliged to accept the money we want to give it." Meanwhile, on the Net, Kazaa's progress is dazzling. The consultancy firms are talking about 2 million Internet users connected simultaneously, 350,000 new users per day... An access provider from Amsterdam comes to inquire, because he has trouble believing the figures from his own servers: Kazaa represents 11% of the city's total Internet traffic! Edwin reassures him: "It's nothing, a university in Ohio told me that 90% of its traffic was generated by Kazaa." The business proposals are pouring in, it's time to get back to work. Niklas and Janus return to Amsterdam to Edwin. Their new HQ is a New Age vegetarian restaurant in the city center. Between the psychedelic posters, the neon green Buddhas and the stools made of construction boards, Edwin finds a little space to spread out the account books, the checks, the urgent contracts: "A service provider from Beijing is going to buy a license from us... A small American label would like to advertise on our site... A Belgian CD distributor wants to set up a shop on our home page..." Niklas does his best to forget the lawsuits and moves forward. To prepare the next version of Kazaa, he hires a second employee, Andreas, 26, who arrives from New York. Janus, for his part, has decided to remain optimistic: "The American majors are powerful, but they don't rule the world, and European laws are more favorable to us... In any case, nothing will stop Kazaa. When I take the tram in Amsterdam or the bus in Copenhagen, I hear schoolchildren talking about Kazaa as if it had always existed. It is part of their daily life, it belongs to them, it has no more secrets for them. They are the ones who will decide its future."

## ###ARTICLE\_START### ID:393

BRUSSELS from our European office - After three years of controversy, the European Commission has decided to propose a directive intended to impose a patent on "computer-implemented inventions" in Europe. This decision, supported by industry, is clashing with free software developers, grouped in the Eurolinux Alliance, who believe that it is a brake on innovation. Eurolinux, supported by more than 100,000 petitioners, argues that it would be impossible to write a program without falling under the scope of a patent. The large IT firms want to reap the commercial benefits of their research. The Union of Industrial and Employers' Confederations of Europe (Unice) asked that at least software "which makes a contribution to technology" be patented. American companies wanted more: they asked that European law be aligned with that of the United States to patent computer programs "as such". The Commission has chosen the Unice path. It proposes to harmonise national patent laws by making mandatory the case law of the European Patent Office, which has already issued more than 20,000 patents concerning computer-implemented inventions, when the program had a "technical effect", i.e. when it was inextricably linked to the operation of a machine. "The directive will not allow computer programs to be patented as such, i.e. without taking into account the machine that executes them", insisted Frits Bolkestein, Dutch Commissioner for the Internal Market, on Wednesday 20 February. Brussels wants to authorise patents when they make "a contribution to the state of the art". This definition is considered too vague by Eurolinux, which fears that it would "open the door to an unlimited extension of the patent". The ball is now in the court of the Council of Ministers and the European Parliament.

## ###ARTICLE\_START### ID:394

"The world is going to change its base": a few cables away from the elections, the Socialist Party does not hesitate to bring out flashy symbols to "shift left" its vision of the information society. This is the first impression that emerges from the note "Towards the Digital City" by the Jean Jaurès Foundation, one of the PS think tanks, made public yesterday. Is there a way to define a left-wing policy on the Internet? An old question, to which, until now, the answer was negative, as recognized by Christian Paul, Secretary of State for Overseas Territories, who piloted the note: the networks lack a "social, cultural and therefore political project", and only provoke a "great silence" in the French political class, "apart from a few slogans". This is a form of self-criticism, if we consider the role played by the authors of this text in the development of the government's Internet policy. Jean-Noël Tronc was thus a technical advisor to the Prime Minister. Intervention. Over nearly 200 pages, the note notes some emerging divisions between the right and the left on the subject, and attempts to define a "political software", the foundations of an e-left, without promising a "great digital evening". It includes classics: the primacy of public freedoms ("the main revolution introduced by the Internet is (...) the radical democratization of the power to publish"), the rejection of "self-regulation" and laissez-faire in favor of "public intervention", the call for a "participatory democracy", or the fight against inequalities of access. Electronic voting (via the Net, from home, as the UDF André Santini calls for) is rejected, because "political participation requires ritualization and secrecy of the vote." Other avenues are more original. The authors thus recall that the Internet (via forums, collective sites, so-called "peer-to-peer" systems) has allowed the development of practices "based on exchange, sharing and pooling, (...) contrary to the description of the Internet as a giant shopping mall". Property. They thus cite free software, programs designed by following "the ways of doing things in the world of research and universities: exchange, emulation, distributed cooperation". To protect these collective practices, and not to hinder the "sharing of knowledge and the circulation of works", which "feed research as well as cultural creation", they recommend a clean-up of intellectual property laws. And recall certain writings by Jean Zay, Minister of Culture of the Popular Front, on the "intellectual worker". It borders on an old slogan: intellectual property is theft! The text does not escape the vocabulary of the business world, such as "efficiency", "back office" and "front office". A lexicon that also makes Strauss-Kahn's preface amusing: it oscillates between references to stock options on the one hand, and to the "world that is going to change its basis" on the other. And what if it were the left itself that was changing its basis?

## ###ARTICLE\_START### ID:395

FUSEES The subtitle of this luxurious publication shows the full extent of his interests: "literature, art, cinema, gastronomy, sports...". Christian Prigent, member of the editorial board, introduces, at the start of this fifth issue, five young authors who, if we had to situate them, would be at the extreme edge of the avant-garde: "Everything about them refuses the FMP (primary media French) language," writes their sponsor. Each one seeks his language in a rhapsodic shift between sophisticated knowledge and idiocy (idiolectal affirmation and insubordination to the common intelligence of positivized discourses)." In the same issue, files on Bernard Noël, Georges Franju, Jacques Villéglé. And also the translation (by Catherine Prigent) of a surprising text by the Russian writer André Biély, Glossolalia, from 1922, where the author from Petersburg invents "a gesture of sounds". Fusées, no. 5, Carte blanche editions, 29, rue Gachet, Auvers-sur-Oise (95), 27, 44. CONFERENCE A beautiful austerity: this is the first impression that comes to mind when leafing through this journal which delivers every semester, on 500 to 800 pages and on bible paper, superbly produced volumes, intended to take their place in libraries and to nourish in-depth reflections. No boundaries between knowledge or eras: recent studies or contemporary texts coexist with translations of authors neglected by publishing or of unobtainable classics. That this thirteenth issue of Conférence is the second devoted to "tradition" will not come as a surprise. No concession to the spirit of the times. Thus, Sophie Iturralde's analysis attempts to identify an idea of education where the role of the school institution would be specified in relation to that of the family: between the two spaces, the break would even be most beneficial. There is also a text from the youth of the great Swiss Catholic theologian Hans-Urs von Balthasar (on the musical idea), a text by Gustaw Herling, poems by Geoffrey Hill and Jean-Pierre Le-maire, translations of Petrarch, Horace... Conference, no. 13, fall 2001, 25, rue des Moines, Meaux (77), 23. EVIDENZ "... Questioning the relationships between politics and aesthetics, community and singularity, and various disciplinary practices between them, today", such is the project of EvidenZ, according to Mehdi Belhaj Kacem, who directs this review with Chloé Delaume. "Lucidity": the theme of the second issue is explained in the editorial of this notebook which is not signed but where one can recognize the style of its director: "The adventure of EvidenZ aims to be the most exciting of existing games, competing absolutely with everything that the world offers in terms of entertainment and leisure, as well as radical enterprises or subversive intellectual or literary productions." And to conclude: "The game is virtually everywhere, non-violence is a decoy." It must be noted that "excitement" is not the immediate consequence of reading this issue, even if several of the texts it contains give, as they say, food for thought. EvidenZ, no 2, éditions Sens Tonka, 2, rue des Haudriettes, Paris-3e, 12, 5. R DE REEL The animators of R de réel, a "generalist magazine", one day had this idea, both simple and infinitely open: take the alphabet in order and devote an issue to each letter. We are at "L", and therefore the twelfth issue. This constraint, far from preventing fantasy, encourages it, even if the end of the adventure is programmed from the outset. Literature remains their main concern. Thus, we move without difficulty from considerations on "free software", tools of the computer utopia, to discussions on the notion of leisure, to end with a joyful dictionary, which mixes Loana with lizards and Lichtenberg, the one who, in the middle of the 18th century, "had given names to his two slippers" and aimed to "invent new errors", with lions. The whole thing is very happily illustrated and laid out, which does not spoil our pleasure. R de réel, no 12, January-March 2002, 31, rue Saintonge, Paris-3e, 6, 40.

## ###ARTICLE\_START### ID:396

With the new tools currently available, publishing on the Web has never been easier. These tools now allow contributors and editors to focus on the content, while ignoring the technical side. But allow the not very humble a little digression, just like that, hop! Last week's column, and more particularly the SPIP software, generated several emails and a few comments on the Devoir website. And it is fitting for the not very humble to give Caesar what belongs to Caesar. As for Brutus, if he has any complaints, let him contact the complaints department. "E tu quoque" my friend. Indeed, the SPIP software was first developed for the management of the uZine2 site by the Minirézo, a portal composed of an informal association of webmasters as well as several members with various skills. You should also read the Independent Web Manifesto, published by the Minirézo, on this subject. But that's not all. In addition to the people at Minirézo and the many contributors who collaborate on programming the tool, Le Monde diplomatique also participates in developing this tool, which becomes more and more powerful with each new version. As Philippe Rivière, from Le Monde diplomatique, who uses tools entirely derived from free software to manage the site of the major French-language weekly, points out, "we participate in programming the tool and we have financed part of the work that is made freely available. This should be mentioned to encourage companies not to be only "consumers" of free software, but also to be producers and to return the improvements to the common pot." Furthermore, it is with a "very limited" budget that Le Monde diplomatique achieves astonishing traffic rates (19% of what its neighbor LeMonde.fr obtains with a daily news site - figures certified by Diffusion Contrôle for January 2002). Our friend Rivière also states that "this could shed light on the debates on so-called professional solutions." We believe so, and that is why we allow ourselves, in this humble column, to draw the attention of our venerable patrons to the possibilities of SPIP. To blog or not to blog? Let's leave the world of SPIP for that of blogs. But what is a blog? According to the definition given by the Office de la langue française, a blog is "an evolving and non-conformist Web page presenting information of all kinds, generally in the form of short messages updated regularly, and whose content and form, very free, remain at the complete discretion of the authors". Let's say more simply that it could be a daily Polaroid of the moods and favorites of the columnist(s) who animate the blog and which brings together comments, hyperlinks, analysis texts, images, in short, everything that can cross the editor's mind. Certainly, the formula works because thousands of blogs now abound on the great Web. And with the tools currently available, it is possible to launch your own blog in less than a few minutes. The all-Web solution With Blogger, it is possible to publish from anywhere on the planet. A simple access to a computer connected to the Internet allows you to take possession of extremely powerful, but easy-to-use publishing tools. All you have to do is enter your username and password on the Blogger site. From your browser, you are faced with an interface reminiscent of a word processor as simple as WordPad. You enter your comments, typographical enrichments, one or two hyperlinks and no sooner said than done, your content is online. Forget HTML, programming, you just have to concentrate on your content. You can publish on the BlogSpot site or on any other host. And for a few dollars, you can decide to subscribe to the Blogger Pro service giving you access to many additional features. Radio VolksBlog If after experimenting with Blogger for a while you find that its features are limited for your needs, then you are ready to make the jump to Radio, the most powerful blogging application available today. Based on Frontier, an extremely powerful development application, Radio is the quintessential blogging application. While version 7.0 was free, version 8.0 is now on sale for $39, but believe me, Radio is actually worth a lot more than that. Easy to use, Radio is an application that must be running on your computer, unlike Blogger which requires only a simple browser and runs on the Blogger server. Radio automatically builds your site, organizes and archives your posts, and edits your content - without any knowledge of HTML, FTP, or graphic design required. All you have to do is install the software and start editing. And all in less than a few minutes. Radio allows you to access other bloggers' content, or to make your content available to other blogs according to the well-known principle of syndication. The graphic canvases available are very beautiful, but nothing prevents you from designing your own layout, and reviewing the entire structure of your blog. The possibilities with Radio are unlimited. This is why I advise serious bloggers to switch to Radio immediately. To convince yourself, it is possible to download the software for a 30-day trial period. Do not hesitate if suddenly, the idea of publishing your blog takes hold of you. Do not hesitate to tune in to Radio. mdumais@ledevoir.com - SPIP www.uzine.net/spip - L'autre Rézo www.rezo.net - uZine2 www.uzine.net - Manifesto of the Independent Web www.uzine.net/article60.html - Le Monde diplomatique www.monde-diplomatique.fr - Blog - definition of the OLF www.olf.gouv.qc.ca/ressources/ internet/fiches/8370242.htm - Blogger www.blogger.com - BlogSpot www.blogspot.com - Radio radio.userland.com - Frontier frontier.userland.com

## ###ARTICLE\_START### ID:397

Potentially explosive remarks. On Thursday, in Libération, Bill Gates, the founder of Microsoft, confided that the next version of the Windows operating system would be launched "jointly" with that of Office (the office software package, text, calculation, etc.) "so that they can both move forward together." Bill Gates is adamant: "The integration of an increasing number of functions in products is the basis of economic progress." However, it is precisely a story of integration that has earned the firm, for three years, its trial with the American State for abuse of dominant position: that of its Internet Explorer browser with the same Windows. A bit like if car manufacturers started selling their models equipped with their own baby seat and car radio, say Microsoft's detractors. Integration. Should we conclude from Bill Gates' remarks that Windows and Office will merge? "The question is not settled," replies a spokesperson for Microsoft France. In any case, it is not even certain that the launch will take place before 2004." Which is true, however: "The next version of Office was supposed to come out much earlier than Windows. We decided to push it back to make it consistent with Windows. It's a whole." Thus, Microsoft is once again on the path of integrating its products. Once Internet Explorer was digested, a host of multimedia and messaging software followed, supplied by default with the latest version of Windows, released in October. However, "when people find the default software in Windows, they no longer look at the competitors," observes Bernard Lang, of the French Association of Free Software Users. The Netscape firm was the first victim of this logic, its navigation software finding itself crushed as soon as Explorer was integrated into Windows, which equips nine out of ten computers in the world. A fact admitted by the American courts. Now, it is Microsoft's competitors in the office suite niche that have cause for concern, such as Sun with StarOffice or Corel with WordPerfect Office. Agreement. The change of direction by the American federal government is probably not for nothing in the pursuit of Microsoft in its logic. On November 2, 2001, it dropped its proceedings against the firm in exchange for a minimalist amicable agreement that did not provide for any financial penalty. A far cry from the dismantling of the company decided by Judge Jackson in June 2000. Only a handful of states refused to ratify this agreement and are asking Microsoft to sell a standalone version of Windows stripped of all integrated software. The European Commission also suspects the firm of harming competition by incorporating its in-house audio-video playback software into Windows and is continuing its investigation into the matter.

## ###ARTICLE\_START### ID:398

The ultimate ego trip on the Web will always be publishing your own website. Whether it takes the form of a more traditional website or a blog, Internet users now have powerful publishing tools that allow a single individual or an organization to publish relevant content in less than a few minutes, while isolating the webmaster from the "HTMLesque" poutine. At the very beginning of the Web, there were only simple text editors like NotePad or SimpleText. These required an intimate knowledge of the HTML language. Then came content automation and dynamization software, based on database management software packages like SQL. Unfortunately, their prices put them out of reach of mere mortals and even the vast majority of companies did not have a budget of several hundred thousand dollars necessary to acquire said software. In short, until very recently, small publishers could not afford these automated publishing tools. Products like Vignette, a heavyweight in the field of web publishing, are far from being within everyone's reach ($60,000 US and up). The arrival of tools like Microsoft's FrontPage, despite their imperfections and limitations, had the great merit of allowing many Internet users to focus on the content, while leaving aside the complexity of HTML language. Powerful tools However, the non-commercial Web, that of personal pages, often contains little gems of sites with diverse content. The same is true for many initiatives from small independent publishers. And some of these sites, like the Chez Maya phenomenon, receive so many visits that they far exceed the numbers of sites that are nevertheless impressive, like that of Cyberpresse, or, of course, that of the newspaper you are reading right now. Hence the need for powerful tools. Today, thanks to the strength of the OpenSource software movement, with great tools like SPIP or PHPNuke, or to initiatives by gurus like Dave Winner, the father of Radio, or Evan Williams, the father of Blogge, it is possible to download extremely powerful publishing tools, and if not free, costing just a few dollars. "Let's assume", just for fun, that you are a non-profit organization, or even, at the limit, a media like Le Devoir and that you want to have a presence on the Web. So you meet a consultant who offers you his dynamic and automated publishing tools. Tools that, without a doubt, and for a ridiculous sum of X tens of thousands of dollars, will be customized for your organization. So, while knowing that I will shock these nice consultants, let me ask myself the following question: Why should your organization pay the high price for these tools, when open-source tools, and even, oh joy oh happiness, available in French, exist and allow the publication of content, while being based on the "publisher-editor-in-chief-contributors" model? The example of Le Monde Diplomatique Take SPIP for example. One of the best-known users of this assisted publishing software is the very chic Monde Diplomatique. Yes! Le Monde Diplomatique only uses open-source tools to publish their content on the Web, the big advantage being that it does not have to pay for the development of its tool, SPIP, the only costs being related to the customization of the site, a very simple and much less expensive operation, given that the SPIP source code is available. And do not think that SPIP is a second-class tool, far from it. With its integrated forums, its keyword search, its integrated search engine and the sending of a weekly newsletter by email, SPIP is a tool that can compete favorably with all the greats of this world. In addition, SPIP can be installed in less than five minutes on a Linux server. As soon as it is installed, you are ready to publish, a big thank you to the basic templates included in the distribution. Do you want to completely revamp the look of your site under SPIP? You only have to modify the dozen HTML templates for it to be completely revamped. Although SPIP is aimed as much at an association, an organization or a media as at a simple individual or a group of friends, next week, we will take a closer look at tools like Radio or Blogger, tools designed for the simple user. In addition, rejoice my brothers and sisters, the not very humble is back in service with its questions and answers section. Thank you Convergence. michel.dumais@videotron.ca - FrontPage www.microsoft.com/frontpage - Maya www.chezmaya.com - SPIP www.uzine.net/spip - PHPNuke www.phpnuke.com - Dave Winner davenet.userland.com - Radio radio.userland.com - Evan Williams www.evhead.com - Blogger www.blogger.com - Le Monde Diplomatique www.monde-diplomatique.fr/diplo/logiciels

## ###ARTICLE\_START### ID:399

Sony's flagship PlayStation II will soon be running Linux, the open-source operating system. The Japanese company announced last week that a Linux installation kit will be available in May in Japan, and the following month in Europe and on this side of the Atlantic. Sony's foray into open-source software is part of a strategy to expand the console, which will soon have word processing capabilities. Sony's kit, which will cost around $300 (US$200), will include a 40-Gigabit hard drive, a USB port, a keyboard and a mouse. Launched more than a year ago, the PlayStation II has been a hit. Just this past holiday season, it sold five million units. Its rival, Microsoft's more recent Xbox, sold a million and a half times in the last quarter. Microsoft expects to have sold between five and six million of them by June. zdnet.com.com/2100-1103-825801.html

## ###ARTICLE\_START### ID:400

"Is it the hard drive or the floppy disk drive?" Nicole, an administrative agent at the town hall of Plessis-Trévise (Val-de-Marne), asks one last question before taking her passport for the Internet and multimedia (PIM) in the town's public digital space, a first in France. This optional exam set up by the Mission d'accès publics à l'Internet (Mapi) tests and certifies the most basic knowledge of novice Internet users. After four hours of initiation, she and her colleagues try out the first part of the exam. ABCs. Not quite a surfing license, the PIM is the crowning glory of the ABCs of the Internet: it consists of a poorly worded multiple-choice questionnaire ("www.monsite.fr is: 1) the address of a site on the Web; 2) what allows me to access a site"), and a series of basic operations to be carried out (naming the components of a computer: screen, printer, mouse, floppy disk drive, etc.). "It may raise a smile, but it helps to clarify things for those who take the CD-Rom drive for a cup holder!" jokes Jean-Luc Raymond, multimedia animator at the Plessis-Trévise media library, who supervises his troop of administrative agents to help them get through the PIM ruts. Other operations required: turning on the computer, launching a word processing program, in this case Microsoft Word, saving a file, opening an attachment to an e-mail and finding information on the Web by typing a web address into a browser... Nothing insurmountable, in short. Although. Nadine doesn't really need this certificate. She simply doesn't want to feel "completely out of touch" with her daughter using a webcam to communicate with distant family. Marie-Thérèse, who works in the city's payroll department, doesn't need the Web in her job. On the other hand, she is fed up with being "banned" from computers at home: "My husband and son have set up a password. When I want to use it, I'm blocked. They don't want to teach me anything." Hence the interest in coming to a public digital space (EPN) to have the basics of navigation explained. The PIM is "the cherry on the cake. It's good, it shows that I've understood certain things," she continues. The Plessis EPN, with its walls decorated with iMac posters and its five computers connected to the high-speed Internet, is one of the hundred or so spaces designated in France to evaluate the PIM for three months and suggest possible modifications to the Mapi. The first observation of Jean-Luc, who supervises each stage of the exam: the PIM is time-consuming and energy-intensive. "It lasts about twenty minutes per person. You can't do it in a group," he says. Then the answers are "left to the judgement of the examiner," that is to say, his own. Quite a few things are left to his judgement, such as the initiation that precedes the exam. "Distinguishing between search engines and directories, an overview of free software or Microsoft's monopoly, high and low speed, I try to talk about everything with a critical eye," says Jean-Luc. "I try to make people understand that the Internet is not just a virtual store." Attributions. The PIM test is handled by the EPNs in France. Issuing this passport is part of their attributions. The PIM still has to make a real place for itself in the string of "tests" of the same ilk: the B 2 I (computer and Internet certificate) of the National Education reserved for middle and high school students or the Internet navigation certificate issued by the Ministry of Employment and Solidarity to job seekers. For these three "tests", the objectives are identical: "To offer an introduction to new technologies and ensure a minimum level of competence to the people who attend our EPNs", specifies Alain Giffard, president of Mapi. Once you have the PIM, you can happily add it to your CV to show that you have mastered surfing the Web. But the passport attests to the neophyte's abilities without certifying them. For now, Dolores, Nicole, Marie-Thérèse, Nadine and Emmanuel have been given an A4 sheet of paper, decorated with at signs, with names and signatures, the date of issue, etc. But that's for fun: in two months, the lucky holders will receive a real passport that looks like a driving license.

## ###ARTICLE\_START### ID:401

Fifty years old, twenty-eight of which were spent in the bowels of Big Blue: Sam Palmisano earned his stripes as CEO of IBM on merit. Official heir apparent since his appointment as number two in 2000, Lou Gerstner's successor, 59, will take up his duties on March 1, in circumstances very different from those that presided over the arrival of IBM's iconic boss. Recruited in 1993 to head a manufacturer that was then in full collapse, the former American Express and Nabisco executive was able to turn things around with an iron fist, with success applauded by the stock market: the stock gained 800% in eight years. Today, sufficiently diversified and innovative to withstand the vagaries of the economy, Big Blue has no reason to change its strategy under the leadership of its new boss, who was already one of its key players. Sam Palmisano, however, offers a very different profile from Lou Gertsner: he arrives in particular with an in-depth knowledge of the company, where, unlike his predecessor, he has built his entire career. A simple representative at the start, in 1973, he has held positions of responsibility in Asia and managed several divisions, including that of services and servers, which has become the group's golden goose. "Over the last ten years, Sam Palmisano has taken on many of IBM's most important challenges," acknowledges Lou Gertsner, who will remain at his protégé's side throughout 2002 and could then inherit a position as a consultant. A father of four children and a passionate promoter of Linux free software, Sam Palmisano also displays a much more sociable approach than the outgoing director, lending himself more readily to the spotlight. This does not prevent him from having a solid reputation as a go-getter manager and "cost killer", which has earned him the reins of the world's leading IT group today. In 2001, IBM made a net profit of $7.71 billion, on a turnover of $85.8 billion, and filed, a record number among American firms, 3,411 patents.

## ###ARTICLE\_START### ID:402

"Disobey!" A radical slogan for the No-Zelig Conf, held this weekend at the International Center for Popular Culture in Paris, but it seems to be on a par with the concerns of defenders of freedoms on the Internet. Thus these second "European meetings of digital counter-cultures" were an opportunity for the cream of the associative, alternative and militant Internet (the associative host Globenet, the GIE Gitoyen, the association L'Autre Net, the alternative online daily Samizdat, etc.) to denounce the "liberticidal" measures adopted within the framework of the law on daily security (LSQ). Unnoticed. When the text was voted on at the end of October, Parliament ratified the principle of the conservation by access providers of Internet users' connection data (their "digital traces"), for a period of up to one year. The implementing decrees determining the exact nature of the data that will be mandatory to keep (list of sites visited, time and duration of connection, addresses of correspondents, etc.) are still under study. Furthermore, the LSQ limits the use of encryption, the only means deemed effective for guaranteeing the confidentiality of exchanges on the Internet. "The purpose of these meetings is above all to make as many people as possible aware that the provisions of the LSQ infringe on individual freedoms, whether on or off the Internet," explains Judith, an activist at Globenet and l'Autre Net. "What happened with the LSQ went almost unnoticed," worries Sébastien Canevet, law professor and member of the jury of the Big Brothers Awards, presented yesterday evening (read opposite). "If we imposed an electronic bracelet on every French citizen to track them, everyone would be out on the street. The LSQ amounts to doing the same thing on the network. But, as the issue is very technical, few have been aware of it." It is true that the debates at No-Zelig remain limited to a population that is both technically savvy and very committed to defending individual freedoms. That is, about a hundred people (computer scientists, hackers and activists) who, for two days, exchanged "tools to fight against the surveillance of citizens", as Pedro, from Samizdat.net, summarizes. In premises with walls covered with posters calling for resistance, workshops were offered on tools to escape Big Brother: how to install and use cryptography software (which encodes e-mails); how to use surfing "anonymizers" (which mask the origin of the computer connecting to a site), how to use networks as part of an activist action, etc. A young hacker came from Amiens to learn about cyberdissidence with a very precise set of specifications: "I want to protect my private correspondence, I refuse to be filmed in the streets when I do my shopping, I want to escape the financial dictates of software manufacturers. In short, I want to be free to install free software on my machine, free to use encryption software, and free to do my shopping without being spied on." Free software enthusiasts and Act Up activists exchanged their points of view on the issue of patents, whether for software or medicines. "This mix is highly beneficial," believes Sébastien Canevet. "Traditional activists are very aware of violations of fundamental freedoms in real life. It's up to us to make them understand that these problems also exist in cyberspace," continues the lawyer. Repeat. For its organizers, No-Zelig was a cyberpreparation for the future Forum of Insubordination and Civil Disobedience, during which (for ten days, starting on February 22) all the associations defending fundamental rights, such as the LDH, AC!, Ras l'front, etc., will invite French citizens to carry out acts of "civil disobedience." www.no-zelig.org

## ###ARTICLE\_START### ID:403

At a time when everyone is talking about "control" and regulating the Internet, you say that the computer codes that underlie its operation, what you call its architecture, are at the center of the debates... Architecture has always been used as a regulatory tool. In the 19th century, Napoleon III understood that the French revolutionaries had benefited from the narrow streets of Paris, where barricades could easily be erected. He asked Haussmann to build wide boulevards to make it impossible for the insurgents to control the city. This example clearly shows the relationship between the way space is organized and political objectives. In cyberspace, architecture is the computer code: the communication protocols and software that make the entire network work. And which therefore define what can be done there, who can publish there and what. The Internet is still an open network, no Haussmann came to police it... Of course... Its basic architecture also explains its rapid development. From the beginning, in the late 1960s, its designers adopted a type of network architecture that meant that the owners of the pipes had no control over how it developed. So it was left free, and individuals were able to build visions independent of any power. This is the opposite of the Minitel model: the Internet was designed in such a way that no central authority controlled either the content or the work of the developers. What are the benefits of the open architecture of the Internet? The most obvious is the birth of the World Wide Web (the "magazine" part of the Internet, the websites, editor's note) itself. In the 1980s, many people talked about modifying the basic architecture of the Internet to optimize it and adapt it to the needs of telephony. Its designers were opposed to this. And Tim Berners-Lee was able to design the protocols of the Web in 1989, which were based on the Internet, but added a new feature to it, which allowed anyone to publish without hindrance. But it took a few years for people to understand that this was important. Why do you talk in your latest book about a "counter-revolution" going on against the Internet? This original architecture has endangered existing interests, here in the United States and around the world, including the telephone companies and content owners, like Hollywood. These industries do not like an architecture in which they cannot control the way that innovation develops. There is now a strong counter-movement to allow these vested interests to exercise a kind of veto over the development of content and applications on the network. And thus to steer them to the benefit of these industries. Does this mean that the way the Internet is built can be changed to increase control? Yes, and this is nothing new. As we saw with Napoleon III, there are many examples in history of a recomposition of a physical space in order to control it. In the United States, Robert Moses, in charge of public spaces in New York, redesigned the roads leading to Long Island. Some of them, leading to beaches, could not be used by public buses because the bridges were too narrow, while on other roads to other beaches, buses could pass. The goal of this architecture was to ensure that people who took public buses, and therefore rather African-Americans, would have to go to certain beaches, and people who would take cars, whites, to other beaches. This is an architecture used to organize segregation between blacks and whites. Do you have examples of these attempts on the network? For example, high-speed Internet in the United States is mainly in the hands of cable operators. These people have developed technologies with companies like Cisco that allow them to choose what kind of content goes fast or slow, what content will be allowed, what software will be banned. This is the kind of architectural power that the original Internet did not allow, it was impossible. This change in the fundamental design of the network allows operators to exercise more control over the way the Internet develops. So the Internet would be threatened today by modern regulatory architects? For a long time, architecture has represented, in some cases, a technique for regulating behavior. But the difference with today is that it is very difficult to use architecture in this way in the physical world, it requires significant effort. Moreover, in the physical world, most architectural constraints are visible, like speed bumps on the roads to make cars slow down. On the contrary, in cyberspace, it is very easy to impose invisible constraints, and this is a danger for our societies. Internet technology is much more plastic, much more easily manipulated, and it can become the source of much more lasting regulatory power. If people don't know that regulation exists, we are faced with an invisible law. Where is democracy? Is changing the architecture of the network enough? No, it is a mixture of architecture and law. The content industry has managed to obtain substantial changes to American laws to increase its power to control the use of content on the network. Take the Digital Millennium Copyright Act (DMCA), which came into force last year. This text does two things: first, it makes it illegal to develop technologies that could interfere with copyright protection systems. Even if the purpose of these technologies is to protect what is called fair use (private copying for educational purposes, for example, editor's note). The second thing is that this law gives Internet Service Providers (ISPs) an incentive to remove very quickly what they suspect is an infringement of copyright. Rights holders contact ISPs to report the presence of contentious content on a site. And the ISPs have to remove it very quickly, or they can be held liable for infringement, just like the pirate. This allows the content industry to control very easily what is published on the Web, thanks to this combination of technology and law promoted by the DMCA. But these laws are made to protect creation... It is true that you do not have the right to be a pirate... But the copyright laws in the United States were never designed to give rights holders the possibility of perfect control. Rather, they gave them a kind of weak control, intended to preserve a balance between rights holders and consumers. It is this original balance that is being modified today. This means that any innovation in the use of copyright can only appear if it has been encouraged by the rights holders. We saw this with the Napster affair, this music file exchange system, closed by the lawsuits of the majors: the development of new online distribution systems will be conditioned by the approval of the multinational record companies. And, of course, they do not have much interest in developing such systems, because it does not give them as much power on the market as they have today. This is why the development of online music is so slow today. Another example is the explosion in the number of patent applications for software. This phenomenon is very recent, the American law on this subject is not very old. Until then, software was designed without worrying about patents. We now have to deal with patents to design programs. This obviously does not affect everyone in the same way: the big American firms can deal with this without difficulty. But small firms and independent programmers of free software (programs designed by volunteers, editor's note) do not have the financial means or the legal support to get by. This is an example of a change in the law that will have the effect of modifying the field of competition in favor of large American proprietary software companies, and against small non-American free software firms. Only commercial interests want to regulate the Internet? Of course not! An alliance has been formed between commercial interests and governments to modify the basic architecture of the Internet. Governments would like to be able to identify people much more easily when they do things on the Internet; they can achieve this result by promoting the emergence of identification technologies. This is one of the indirect consequences, for example, of the Yahoo trial in France, where the court ordered the American portal to block French Internet users from accessing part of its site, in this case the auctions of Nazi objects. The effect of this decision is to encourage companies to develop technologies that will make it possible to know whether an Internet user is French or... whether an American is American. With these technologies, Yahoo would have found it easy to exclude French Internet users from its site, as the French court asked it to do. This is an incentive to develop a certain type of technology that will have the consequence of modifying a function of the original architecture of the Internet, that of maintaining relative anonymity on the network and during navigation. How do you see the Internet of the future compared to that of today if all these interests converge towards more control? There will be several substantial differences. One of them is that people, when they use the Internet, will be much more easily identified: who they are and where they come from. And their behavior will be much more easily tracked: there will be sorts of digital traces everywhere, exploitable by governments or companies. Then, the Internet will become a much less neutral platform for publication. Today, anyone can publish a website if they want to. This possibility will be reserved for a certain type of publisher and for a certain type of pages; access will be filtered in favor of commercial access. The neutral platform will be replaced by a very commercial and discriminatory platform. Finally, the development of applications and the emergence of new uses will be much more regulated by the large institutions or companies that control the network. The more they concentrate, the more they will be able to exercise control over what is allowed on the network. Microsoft's new operating system, Windows XP, does this very explicitly. If you want to program software to be able to connect any device to your computer, it must be approved by Microsoft. Otherwise, when you try to install it, the computer will block you. This is an example of how those who control the architecture will control what is designed for the architecture and how it develops. Are these trends reversible? Without a doubt. We still have a choice. The question is whether governments and individuals will act to defend the original values and architecture of the Internet. If they don't, things will change very quickly. The problem is that people, particularly politicians, don't realize how fundamental the architecture of the network has become as a tool for regulation. We need a change of attitude and perspective. And it's because this is not the kind of thing that politicians are used to doing that I'm rather pessimistic.

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Amazon, the company that symbolises the new economy, has come out of the red and has just announced its first profit since its creation: 5.6 million euros for the fourth quarter of 2001, after years of huge losses. Despite the recession hitting the United States and a slower growth in online commerce across the Atlantic in 2001, Jeff Bezos, the founding CEO of the world leader in e-commerce, has therefore succeeded in his bet: to prove that Amazon could generate profits before the end of the year. The turnover of the group's five sites (United States, Japan, Germany, England and France) was 3.53 billion euros in 2001, an increase of 13%. Over the year, Amazon remained in deficit with losses of 642 million euros. To achieve this result, Amazon drastically reduced its costs, in order management among other things. The company has opted for less expensive IT solutions, such as Linux free software, and has revised its marketing expenses downwards, after the bankruptcy of several competitors. Finally, to boost its sales, Amazon has continued its discount policy and reduced its prices on books by 30% in the United States, a sector in which the e-tailer is already profitable with margins of around 10%. "There are two types of merchants, those who work hard to raise prices and those who work hard to lower them," commented Jeff Bezos, "both models can work, but we have chosen the second." As proof, he announced that delivery would now be free in the United States for all orders over $99 (111.94 euros). "Improving our competitiveness must benefit consumers," he concluded, "that's how we win customers." However, once the holidays are over, forecasts for the first quarter of 2002 are less optimistic, ranging from 18 million euros of losses to breakeven.

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It is difficult to sketch out a political map of the debates related to the Internet: many of the divisions are imported from the United States, where the left and the right readily clash between "public regulation" and "laissez faire" (the market). But it is already possible to find divergences between the right and the left in France, by studying certain speeches and certain political measures. Examples. Rather right-wing Online voting Several right-wing personalities are in favor of voting via the Internet, from a computer at home. This is the case of André Santini, UDF mayor of Issy-les-Moulineaux, but also of Alain Ferry (affiliated with the UDF), author of a bill on the subject in the spring of 2001, who sees it as a way of "reducing the level of abstention". And Chirac proposed to experiment with it with the French abroad for the upcoming elections. On the left, on the other hand, they are not keen, and "we are wary of push-button democracy" (Yves Attou, PS). Equipment bonus. A tax reduction or a bonus to buy a computer? This type of measure is mentioned from time to time by the right ("creation of a student grant for computer equipment", proposes the RPR program), because "the appropriation of the tool is individual", underlines a close friend of Jacques Chirac. On the left, on the other hand, the emphasis is on collective equipment: schools, town halls, public access points. Rather left-wing Tax on digital media. This is the spirit of the Lang law of 1985: a tax is levied on blank audio cassettes and paid to the authors' representatives, to compensate for the copies made by Internet users. In return, "private copying" (for family use) is authorized. The debate has obviously exploded recently with the advent of digital technology and free music exchange systems, in the wake of Napster. The left wants to maintain this system, by extending the tax to all digital media (CDs and DVDs, which has been the case since the beginning of 2001, and soon hard drives). On the right, on the other hand, they are against this tax and are instead arguing for technical solutions preventing copying. Free software. Free software (these programs designed by volunteers outside of any company) have become Microsoft's biggest competitors, particularly via Linux, the challenger to Windows. The government has been encouraging the administration to use them since 1998. In addition, their design method (decentralized, based on cooperation and not competition) appeals to certain fringes of the left who are nostalgic for a time when competition was not the only political horizon of production. On the right, however, they also like Linux, but because it allows "guaranteeing the technological independence of France" (by avoiding buying 100% Microsoft, 100% American), as people close to Chirac point out.

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"The Internet is neither left nor right." This is what the left says, in this case Yves Attou, national delegate for training at the PS, and for once the right is in agreement: "Where do you want to find divisions? I don't really see it," wonders the national secretary of the RPR in charge of new technologies, Alain Joyandet. However, some subtle divergences are beginning to emerge, perhaps just waiting for a little reflection within the parties to turn into real clashes: online voting, copyright on the Web or free software (read below). For the moment, "the French parties do not understand the Internet well," notes a close friend of the Greens. "As a result, they are seizing on the simplest aspect: equipment." On the right as on the left, the political horizon of the network is equipment and connection for everyone. Neither right nor left, wired. Even if the vocabulary reveals slight nuances. On the left, we readily speak of a "digital divide". On the right, we speak rather of a "digital fracture", an obligatory reference to Chirac's lexicon of the social divide of 1995. In both cases, it is the same refrain sung: "We must increase our efforts to resolve inequalities of access and use (according to the PS program, submitted to the vote of activists next Saturday)." Or: "Every citizen has the right to be able to access these fantastic new possibilities. Who questions the right to drinking water, electricity, telephone? (RPR program)". French softness. At a time when many activists are alarmed by the rampant commercialization of the network, the growing control of certain companies (Microsoft, AOL, first and foremost) over the very organization of the Internet, where the Web is suffering the shock of international legislation on freedom of expression, it is an understatement to say that the main French parties are losing interest in it. Where does this weakness come from? French politicians are multiplying blind spots in terms of digital policy. First, many debates related to the Internet oppose a liberal-libertarian vision of society to a more statist vision. However, this divide crosses the parties. "The PS is in trouble because of the libertarian side of the Internet, very foreign to its culture," admits a member of the party. On the right, there is the same problem: the most established parties, RPR or UDF, have still not decided between their most interventionist components and their liberal fractions. Green strategy. More comfortable, on the other hand, are parties like the Greens (a fringe of which is quite libertarian) or Liberal Democracy. Noël Mamère made a speech on January 11, denouncing the "commodification" of the network, in particular by denouncing software patents (now banned, but which Europe is tempted to authorize), which, according to him, risk accentuating the privatization of key tools of the Net. "Mamère has chosen to capture the community against the commodification of the Web. It's a real strategy," says Arnaud Dassier, member of the political bureau of Liberal Democracy. He also regrets that his party is not more committed to attracting the votes of network entrepreneurs, those who see the Internet as a lever for a liberal market economy. Second blind spot: the international side of the Net, with distant power centers, outside the scope of the Franco-French political scene: ICANN, for example, this organization responsible for the topology of the network, the addresses in ".com", ".net"... , under the supervision of the United States Department of Commerce, is the scene of struggles for influence between States and industrial lobbies, which are fighting to obtain more visibility. Without any French party worrying about it. In addition, France lets itself be dictated the pace by the European Union (a major provider of regulations: electronic commerce, online privacy, copyright, often quite liberal) and by the United States (whose weight is important in international negotiations). Too fast. There remain a few sketches of politicization, outlined here and there. On the left, the "real time" Internet section of the Socialist Party is trying to imagine new rights, such as access for unions to companies' internal networks, for example. Or again, on the right this time, the thoughts on online mediation, where it would be a question of entrusting private organizations with the settlement of certain disputes on the network. Without these lines of thought being taken up by the parties' programs. As Yves Attou, of the PS, confesses, "there is a telescoping of political rhythms with the rhythm of the Internet." In other words: it's going too fast. I promise, in 2012, there will still be time to worry about Internet policy. Until then, snore, youth.

## ###ARTICLE\_START### ID:407

New York from our correspondent - Attacked on its own turf, AOL Time Warner, the American media giant, is preparing to respond by competing with Microsoft, the world's number one software company, in PC operating systems. According to the Washington Post, the group is in negotiations to buy Red Hat, the leading distributor of the "free" Linux system. Both companies have refused to confirm or deny this information. Developed voluntarily for twenty years, Linux - named after its founder Linus Torvalds and Unix, the professional system from which it originated - has managed to take some 30% of the market share in Internet servers or corporate networks. But, due to its complexity, Linux remains marginal among the general public. The so-called "free" software model is based on free software and the provision of manufacturing secrets (the source code). Conversely, Microsoft refuses to make public what it considers to be its main asset and intellectual property. To survive, Red Hat markets software suites that it aggregates around Linux. A model that is difficult to make profitable. Red Hat lost another $15 million (17 million euros) in the last quarter. a real alternative On the scale of AOL Time Warner, Red Hat is a small company with a $1.45 billion market capitalization, 600 employees and a turnover of $68.2 million for the first nine months of its 2001 fiscal year. But by combining Linux and its own AOL software, used by more than 33 million subscribers worldwide, the communications giant could create an alternative to Windows for the general public. This is not the first attempt by AOL Time Warner to counter Microsoft's monopoly. AOL bought Netscape in 1999. This company develops the Internet browser of the same name, engaged for years in a fight against Microsoft's Internet Explorer. The legal proceedings and convictions of the world's number one software company for "abuse of a dominant position" are directly linked to its desire to eliminate Netscape - which it has almost succeeded in doing. Microsoft controls about 90% of the world market for PC systems. The strategy of the group founded by Bill Gates is to make Windows the obligatory interface for Internet distribution and the use of all digital documents. AOL Time Warner, whose ambition is, according to its president Steve Case, to "build a global media as central as the telephone or television", cannot accept depending on Microsoft. In cable, Internet access (AOL versus MSN), navigation software (Netscape versus Explorer), messaging and online services, the two groups are direct competitors. AOL Time Warner has just recorded a bitter failure. AT&T preferred to sell its cable television subsidiary to Comcast. A success for Microsoft, present in the capital of both Comcast and AT&T. By attacking Windows, the heart of Microsoft's power, AOL Time Warner hopes to take its revenge.

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It's becoming clearer: there should be a bit of digital and Internet in the socialists' program for the presidential and legislative elections. A quick review of the three high-tech themes that are about to be included in the PS's projects. Software patents. The "probable" presidential candidate will oppose the creation of software patents in Europe. While the measure seems technical, it is essentially political: these patents, non-existent in Europe but common in the United States, are accused by their many opponents of being a weapon in the hands of large companies, which use them to block any inconvenient innovation. And to limit the use of software designed and distributed by volunteers outside of companies. For the PS, it is also a way to counter Noël Mamère, the Green candidate who is leading a campaign against software patents, in the same way that he opposes patents on living things. Household equipment. This would break a taboo: it would involve financing the equipment of homes with computer equipment, in order to reduce the "digital divide" that is growing between technophiles and those excluded from the Internet. It could involve making the State pay for a computer for any household with a child in secondary school and receiving the back-to-school allowance. The measure, not yet arbitrated, comes from the Socialist Party's think tank on new technologies, the "real time" section. It could land on the PS program, in the form of an amendment to the Aubry project, before ratification by activists on January 26. A Linux law. The same timetable is possible for the measure that aims to strengthen the French choice in favor of "free" software, these programs designed by volunteers from all over the world and freely copyable and modifiable, like Linux, the competitor to Microsoft's Windows operating system. It would involve favoring "free" by voting on a law.

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COMPUTING Born in the early 1980s, the "free" Linux computer operating system is starting to worry Microsoft, the world leader in this field with its Windows system. The company created by Bill Gates is mainly faced with a culture and an economic model that are the opposite of its own. LINUX and other free software are developed transparently by volunteer developers, and their source code, published on the Internet, can be modified by anyone. PUBLISHERS in the Linux world do not make a living from the marketing of licenses but from the sale of services related to the use of software. IBM has chosen to make its computers compatible with Linux. A NEW European regulation, replacing the current copyright on software with a patent, could threaten, if adopted, this "free" economic model. "LINUX is a serious competitor for Microsoft. The question we have to ask ourselves is how to bring value in the face of this phenomenon." Coming from Steve Ballmer, CEO of Microsoft, the statement, launched at the end of October, is unexpected. More than a competing operating system - there are others - it is a culture and an economic model that are the exact opposite of its own that the publisher headed by Steve Ballmer and Bill Gates is facing. Microsoft develops its software in great secrecy and at the cost of billions of dollars; Linux and all software called "free" are developed in transparency by communities of volunteer developers. The source code - the "recipe" - of Microsoft software is jealously guarded; that of free software is published on the Internet and can be modulated at will. Above all, Microsoft draws most of its revenue from user licenses, whereas in the world of Linux and free computing, the use of software is in principle free, only the related services are marketed. Although it is not very present in general public computing, free software is, however, increasingly interesting governments and businesses. According to the Computer Club of Large French Companies (Cigref), the movement, which has been really noticeable for two years, is now gaining momentum. The research firm IDC confirms this: in 2000, more than 27% of servers sold worldwide ran Linux, compared to just over 40% under Windows. Born in the early 1980s in American teaching and research circles, free software is above all a militant movement. Based on the values of sharing and disseminating knowledge, particularly technical knowledge, it has greatly benefited from the emergence of the Internet. On the Web, structured communities of developers have gradually formed, who create and improve software, for the simple pleasure of collective work and technical prowess, like the Finnish Linus Torvalds, the creator of Linux. These computer scientists (professional or amateur) are generally estimated at nearly 300,000 people in the world. The number of software projects, whether completed or not, is around 30,000. Among these products, the Internet user finds not only the Linux operating system, but also office suites, anti-piracy software, or even very specialized programs. Free, the use of these programs is nonetheless regulated. It is generally subject to the General Public License (GPL), written by Richard Stallman, former researcher at MIT and spiritual father of free computing. The GPL guarantees the freedom to use, copy, distribute and modify this software. On condition, however, that the modifications made are subject to the same regime. If today, "free" software is leaving universities and research centers to reach businesses and administrations, it is, according to Bob Young, CEO of RedHat, the main publisher of Linux solutions, because "businesses want to regain control of their computer system" from the big publishers. With this wave of "free", the software industry is seeing new players emerge. Linux publishers, such as MandrakeSoft or RedHat (respectively listed on the free market and on the Nasdaq), collect software suites that they aggregate around the free operating system. These ready-to-use solutions - called "Linux distributions" - are marketed, while leaving users free to copy and distribute the products. Survival, for these publishers, does not depend on the marketing of licenses, but on that of services linked to the use of this software. Updates, technical support, advice and training, form the bulk of their income. The viability of such an economy is not obvious. "Linux suffers from a model that requires living on services, analyzes Alain Pétrissans, director of the software division at IDC France and author of a report on the economic model of free software, commissioned by the Secretary of State for Industry and to be published in early January. However, margins are generated on a case-by-case basis according to customer projects. In addition, Linux specialist service companies find themselves in competition with service giants." For Frédéric Lau, research officer at Cigref, "the price of licenses is not in itself a determining factor in migration to Linux. It is more the quality of developments and security, and the stability of Linux, that arouse interest. For example, when a security flaw is discovered, the corrective program is available very quickly after being submitted for approval by the developer community, which is a guarantee of transparency and quality." The system, however, has the flaws of its virtues. Of course, the development community of a free software will only make changes if technically necessary, and not to inflate the operating account of a publisher, but the sustainability of these communities, based on volunteering, is not guaranteed. This point, according to Mr. Lau, could dissuade companies from choosing free solutions. To respond to this possible volatility, RedHat or MandrakeSoft, but also young service companies linked to free computing, are doing "sponsorship" by paying some members of these communities. But it is above all the arrival of the big names in IT services (Cap Gemini, IBM) on this market that will really allow the free software sector to take off.

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THE PATENT is the sworn enemy of all economic players claiming to be free software. In Europe, it is one of their most serious concerns. Recognized in the United States and Japan, the software patent is not currently accepted in Europe, under the Munich Convention, the founding act of the European Patent Office (EPO). This only authorizes patenting on systems involving a physical action, which theoretically excludes computer programs and all "intangible creations". Software is protected in Europe by copyright. The stakes are high not only for innovation in software, but also for freedom of competition in electronic commerce and exchanges on the Net. Amazon.com, for example, filed a patent that describes a simple operation of ordering a product or service via the Internet. Such a patent thus puts most online commerce companies at the mercy of an infringement attack. Free software promoters are all the more worried because the European Commission is preparing a directive that they fear will follow in the footsteps of Japanese and American legislation. The EPO has even allowed itself to move faster. The office already accepts such patents, even if the approximately 20,000 acts of this type registered to date are still inoperative before European national courts. "Most of these patents are foreign and are a time bomb," emphasizes Bernard Lang, secretary general of the French-speaking Association of Free Software Users (AFUL). If they are legalized, European companies will be very badly affected. "If the patentability of software were to be legalized on the Old Continent, publishers who offer Linux-based solutions would be exposed to counterfeiting attacks by traditional publishers. "We are perhaps violating 2,000 patents," emphasizes Jacques Le Marois, CEO of MandrakeSoft, a publisher of the "free" operating system. PATENTABILITY, HOW FAR? For their part, the major traditional publishers are mostly in favor of such an extension of the notion of patent. "With copyright, it's a bit like if it were only possible to protect the design of a car, but not the mechanisms that allow it to function," argues Olivier Ezratty, head of the .net division of Microsoft France. But even among its supporters, it is conceded that software patents can present risks of excess. "We know that there are abuses in software patent filings," explains Mr. Ezratty. "But it is in any case necessary to find ways to protect companies that invest in research." The debate goes beyond IT. The patentability of software opens the door to that of intellectual or commercial methods. "It would become possible to patent the distribution of cooking recipes in a supermarket, as long as the process would involve a computer," affirms Mr. Le Marois. The issue of software patents would then become a public debate. Noël Mamère, the Green candidate in the next presidential election, has also promised to make it one of his campaign themes. Because the adoption of software patents would have an impact on state policies in favor of technological innovation, as well as on the control of public information systems vis-à-vis American companies. "With Linux and free software, we could achieve what our governments have never been able to do with subsidies with Bull: gain technological independence, says Mr. Lang. Destroying all that with software patentability would be a real political betrayal."

## ###ARTICLE\_START### ID:411

THE STORY could be titled: "When software bigwigs team up with free software troublemakers..." At the end of November, IBM had to pay $120,000 to erase nearly 300 graffiti promoting the free Linux operating system from the walls of San Francisco. On the sidelines of the official campaign celebrating the presence of Linux on its new servers, the American computer giant had initially considered that spray-painting the walls of San Francisco was necessary to announce its union with the new wave of free software! The story is amusing, but nonetheless reveals the interest, and the tentative steps, that Linux arouses among the big names in computer science. With the notable exception of Microsoft. "Most of the giants in the sector have followed the movement launched by IBM, which not only put Linux on its machines, but also invested heavily to make its software compatible with it," explains Franz Meyer, Southern Europe director of RedHat, a publisher of the free operating system. To meet market demands, Sun, Oracle, Hewlett-Packard, Compaq and Dell are thus ensuring the compatibility of their products (hardware or software) with Linux. "The first announcements were made about two years ago and were generally implemented in 2000," continues Mr. Meyer. For IBM, the movement is painless, on the contrary. "The adoption of Linux allows it to sell more machines and services, which represent the largest share of its turnover," estimates an analyst. On the other hand, Sun sees its Solaris operating system facing tough competition from Linux and Oracle could see its dominance in the database software market challenged by free programs which, in the wake of Linux, are trying to attract new customers. "A DENIAL OF THE MARKET" Reluctant to any compatibility of its products with the free operating system, Microsoft has been lighting the counter-fires for the past year. The Redmond firm, notes the Cigref, "has developed an argument against the economic model of free software". The use of volunteers, the cornerstone of this economy, is particularly criticized. As for the operating license for free software, the Redmond firm sees it as "a negation of the market economy". Bill Gates' company, while not mincing its criticisms of the proponents of "free", is observing the phenomenon carefully and attempting timid cultural changes, such as making the source code of Windows 2000, XP and CE available to its customers, formalized in May 2001.

## ###ARTICLE\_START### ID:412

A pleasant surprise at the Bandits-Mages festival, from December 13 to 16 in Bourges, the "carte blanche" given to the Belgian association Constant has drawn up an unusual panorama of digital creation (Libération, 17/12/01). Patience, tinkering and crashes are on the program of the ten links proposed by WYHISWYG (What You Hear Is What You Get), a snapshot of autonomous diffusion, artistic peer-to-peer (hard disk to hard disk exchanges like Napster), audio interfaces, diverted search engines, radio creations by SMS. "These artists, some of whom become programmers, use the metaphor of software, creating a game between the world of art and the representation of data as so many abstract landscapes", explains Nicolas Malevè, from Constant. They are German, American, British and often work in the spirit of free software, questioning computer tools as pop art did with advertising. "The artist is not just a consumer, but someone who can influence the evolution of the software," says Nicolas. The world they give us a glimpse of has nothing to do with the web pages we know, with their boring design, their sappy content and their clickable ads....

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It seems that while there is no shortage of money to buy new computers in our schools, the same cannot be said for teacher training and maintenance. However, with no training, no use of computers in schools. And no use, there are the beautiful computers sleeping in a corner. Are we really obliged to continue investing in new machines, when training, as well as a real computer culture, are sorely lacking? A few weeks ago, columnist Jean-Pierre Cloutier, in a column published on the netmag Multimédium, rightly challenged the Minister of State for the Environment, André Boisclair, on the issue of computer recycling, more specifically the recovery of components. Indeed, in addition to certain precious metals, the manufacture of a computer contains substances that are harmful to the environment, such as lead, cadmium, barium, lead oxide and mercury. A subject that our friend Louis-Gilles Francoeur also addressed. Allow us to pursue his reflection a little further. Reuse Instead of sending all these computers to the scrapyard and recycling, would it not be a good idea to focus on reusing them, in order to save substantial amounts that could be reallocated to training and the establishment of a computer culture in our schools? Professor Jean-Claude Guédon, in a text published in 1998, made a pertinent reflection, with which I totally agree and on which we have discussed at length. An intelligent government, with a certain political courage, could from the outset resolve the issue of enormous investments in equipment by implementing a national policy for the recovery of computer equipment. Screens, mice, keyboards, printers and all peripherals that have a lifespan of more than eight or ten years could be recovered and redistributed in the school network. What does it matter whether a keyboard is white or blue, or whether a printer spits out its sheets at four pages per minute or 16 pages per minute. As long as these peripherals work, why retire them? Similarly, according to Guédon, the ever-same intelligent government (one can dream) "would offer companies the possibility of amortizing the full cost of their computers in two years, on condition that they give them, at the end of this period, to educational institutions. This would obviously result in a loss of income in taxes, but this could be deducted from the envelope intended for the computerization of schools. Before being distributed to school boards, these two-year-old computers could be distributed among various computer science departments in CEGEPs and universities for a general upgrade, carried out by students." Once these students have put these computers back in shape (what wonderful practical work, right?), these computers could be redistributed throughout the school network through a program like that of Computers for Quebec Schools (OPEQ, www.opeq.qc.ca ). Free Software Next comes the question of software and the operating system. Contrary to what one might think, there is more than just Microsoft or Mac OS. You see where I'm going with this, I obviously want to talk to you about Penguin, Linux and free software. As Mr. Guédon says so well in remarks that I not only support but that I propose to borrow with his permission, an operating system is only there to "communicate" with the different components of a computer. We use applications, software, not an operating system. It would therefore be a shame to offer our students only one type of word processor, one type of spreadsheet, one type of database and one type of drawing software. The only result would be "rapid obsolescence of know-how, a passive attitude towards unknown situations and therefore training in a consumer mentality rather than that of a responsible and autonomous individual, in short, a citizen". Linux is a free and open source clone of Unix, an operating system that inspired (a little) Windows NT, 2000 and XP, and (a lot) Mac OS. Linux runs on a number of free and open source applications that are almost identical to those of proprietary software publishers. For an Office suite, there is an OpenOffice or KOffice suite that is almost as powerful, but free. In short, by recovering and recycling computers and treating them as X terminals, students could work in parallel, as if they had much more powerful computers. The multitasking qualities and protected memory of Linux therefore make it possible to manage each terminal as if it were an independent computer. Result? The cost of computerizing a class drops considerably. A Montreal institution, the Félix-Leclerc school, has brilliantly demonstrated this. In a letter sent to the Minister of Education, François Legault, Réal Gingras, a teacher at the school, presents some very real figures: By connecting old 486s and obsolete Pentiums to a network, and taking into account networking and manpower, the Félix-Leclerc school managed to connect 60 computers for less than $13,000. Since Mr. Legault's ministry estimates that for the purchase of 35 computers with proprietary software, it is necessary to budget nearly $80,000, Mr. Gingras estimates that with this same $80,000, he would have managed to install nearly 280 machines in his school, enough to increase the computer/student ratio devilishly quickly. Imagine the miracles that the $11 million announced by Minister Legault on December 1st could do... In conclusion to this series of columns, and as Guédon said so well, who persists and signs, and which, once again, I fully support, the thesis defended here comes down to saying something like this: "By using free software, not only do we make spectacular savings on hardware, not only do we free ourselves from the logic that the large IT multinationals are trying to impose, but, in addition, we connect with one of the most vibrant centers of the society that is being created, that of distributed intelligence. This distributed intelligence has already produced some spectacular results. Scientific research is the most striking historical example, but, closer to home, the Internet, Linux, the Web also testify to the validity of the concept. This distributed intelligence, in fact, is only just beginning to make its effects felt and they will be major. Big surprises await political and commercial authorities that do not fully grasp the issues. The massive networking, in original ways, of hundreds and thousands of minds will lead to new forms of territories, identities and therefore achievements. The diagram offered above, while allowing us to function better than ever in today's society, is already preparing the society of tomorrow. Now this corresponds exactly to the fundamental challenge of a real education policy."

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Created by computer enthusiasts or designed by companies that use them as a means of baiting consumers, shareware and freeware form an incredible group. Sites make it their duty to list them and, depending on certain tasks to be performed, offer selections of software. "Good, beautiful and cheap" is often heard. On the Internet, it is still possible to find hundreds of programs that are "good, well made and free!" In a world where free has become suspect, it is good to know that these applications (another word for program) are often very high-quality products that have nothing to envy their commercial competitors. On the contrary, these products have often been developed to fill the gaps and defects of the latter or to make them even more user-friendly. The production of this software reflects an undeniable spirit of creativity and illustrates "Internet solidarity": individuals develop products and distribute them for free. Better still, some manage major sites on which they make information available to visitors and even agree to lend a hand to those who are struggling with a problem. Be careful, these sites offer both free software (freeware) and shareware. The latter are products that you can use for a certain amount of time before deciding to buy them or remove them from your computer. Generally, the designer of shareware programs the product so that it works for a set period (usually 30 days) before it refuses to work. You must then send a payment to the designer to obtain a key or access code to reactivate the software. As for freeware, there is no payment to be made except that some authors ask that you send them a postcard or that you give a little money to a community organization. How to find freeware? For example, by launching a search query with the words freeware and download on Google at www.google.com . An impressive list of 6,500 Web pages immediately appears! Here are a few, which generally offer products for PC and Mac: http://www.telecharger.fr/index.htm, http://www.tucows.com/search, http://legratuit.com, http://www.zdnet.com/downloads/ The risk is not not to find anything, but to succumb to the frenzy of free downloads and make your computer gain weight. Here again, moderation is much better! FINDING NEEDLES IN THE UNIVERSE OF THE WEB Like the universe, it seems, the Web is constantly growing. Thousands of pages appear every day. The Web grows in all directions, the best rubs shoulders with the mediocre and the bad. The Web is so vast that this thought of the philosopher Pascal on the universe seems perfectly suited to the "virtual" universe of men: a reality whose "center is everywhere and the periphery nowhere." The problem is that this growing mass of information is not indexed like in a library. The Web is a library in which books are "thrown" pell-mell in millions of tiny pieces. Fortunately, there are search engines that index the content of pages and allow them to be found. But none of the hundreds of existing engines has managed to swallow the entire Web. Fortunately, there is Copernic, a "meta-engine" that will query several engines and bring back information by classifying it and eliminating those that appear twice. Fortunately, the free version of Copernic is capable of searching for information in large areas - the Web, the Web in French, the Web/Canada - and a few specific sectors - discussion groups, mailing addresses, book purchases, software purchases, computer hardware purchases. The Plus and Pro versions are obviously richer, but you can go a long way with the free version. Copernic: a "must" developed in Quebec by a company in the Quebec region. - Download: http://www.copernic.com/fr/ WAKE UP GENTLY IN THE MORNING Here is a very useful little software that I have been using for years. The strength of this software lies in its simplicity and tenacity because, once an alarm is set, it only stops when you turn it off. In short, this alarm is similar to those terrible alarm clocks that do not let go of their client until the latter has made the effort to turn off the alarm. This software can also be used as an alarm clock and you can even replace the alarm sound file with a piece of music of your choice. This last operation is done in two steps: you must first transform the piece in question into a WAV file and then, by going to the configuration panel, associate the new WAV file with the alarm. For the first operation, you can use a free program like MusicMatchBox Jukebox 7.0 (http://www.musicmatch. com/ ). Although Alarm95 was originally designed for Windows 95, the program works very well under other operating systems. I have used it under Windows 98, 2000 and now XP and it still runs perfectly. - To download it: Alarm95 at http://www. jfwlite.com/programs.htmlFREE ANTIVIRUS This is the one I use. It has often protected me from poisoned emails. What can I say except that the design of the dialog boxes is superb and that it has nothing to envy of its commercial competitors? Some features: scanning of incoming and outgoing mail, automatic updates, automatic file scanning, sending occasional emails to warn users of the opportunity to update its virus definition database (when dangerous viruses are active). - Download: www.grisoft.com A RUSSIAN DAVID PERFECTS THE AMERICAN GOLIATH AppSwat.exe is a tiny program weighing only 7 k (a feather in today's software world). Written by the Russian Dikiye Dvizheniya, this utility is capable of preventing heavyweights like Windows 95, 98 and Millenium from doing stupid things or, in other words, from crashing! A word first on these chronic crashes of these Windows: roughly speaking, let's say that these are affected by a genetic disease such that they are unable to properly manage the computer when there are many applications or programs open at the same time. The operating system ends up running out of resources, a phenomenon that occurs even when a user closes programs because these Windows are often unable to recover resources that are theoretically available since programs have been closed. In short, when the system suffers too much from a lack of resources, it freezes even though there is an emergency procedure planned with the simultaneous pressing of the three keys Ctrl+Alt+Del to "force close" the program at the source of the blockage. But unfortunately, we are very often forced to restart everything, which causes a loss of data and, always, a waste of time. It is precisely this forced closing operation that the Dikiye Dvizheniya program performs very well. It does not always succeed, but its success rate is significantly higher than that of Windows or the commercial program CrashGuard from Symantec. In short, it would be wrong to deprive ourselves of it, especially since this program installs in a second and leaves no writing in the registry; it is therefore totally safe! For those who use Windows 2000 or XP, Windows that rarely crash (or never like the new Windows XP), AppSwat can be used to quickly close applications because it allows, via its "dashboard", to close several programs in one go. - To download it: http://www.ddhomepage.nm.ru/html/appswat.html (be careful, the Russian programmer's site loads slowly, please be patient!). Another site for downloading: http://www.helloduck.com/logitheque/appswat.html DREAM WEB PAGES! I don't make Web pages, but I "consume" them continually. Some are magnificent, others much less so. But many are those who dream of "building" Web pages and sites. There are many Web page editors, but there is one name that keeps coming up: Dreamweaver by Macromedia. The software is at version 4.0, but version 2.1 can be downloaded for free from a site managed by French teachers. For those interested (teachers or not), this site is a goldmine of free software! As for those who think that version 2 is an "old" version, they only have to consult this excellent (free!) guide to information research developed by librarian Catherine Passerieux with Dreamweaver 2.0: http://www.bibliotheques.uqam.ca/InfoSphere/sciences\_humaines/index1.html - Download: h ttp://www.framasoft.net Serial number: DWW200-99987-50374-66457.

## ###ARTICLE\_START### ID:415

THE NINE states still suing Microsoft asked the judge hearing the case Friday to order the software giant to offer a lighter, cheaper version of its Windows operating system. The states are asking Judge Colleen Kollar-Kotelly to order that the Office suite be compatible with other operating systems and to order an "open source" licensing system for Internet Explorer.

## ###ARTICLE\_START### ID:416

Macif was in dire need of a makeover for its IT systems. Just a few months ago, the advisors in the agencies (who receive policyholders, draw up quotes and contracts, and process claims) were working on simple passive IBM screens. Terminals dating back to 1975 technology, still operating in character mode, i.e. with text form screens, without icons, without a mouse. No more interesting, no better presented, and especially no more flexible than a vulgar Minitel! "Old machines," according to Frank Kopernik, deputy IT director at Macif. The change underway is radical: the Mutuelle assurance des marchands et artisans (Macif) has even adopted the free Linux software, a must for IT specialists. Of course, the old architecture had the merit of being simple: a computer center equipped with large IBM computers grouping all the computing power, connected to workstations with no autonomy. But, in addition to being astonishingly obsolete for France's leading insurer, it had several major drawbacks. For example, the system required agents to write out all the data for car loan and life insurance contract subscriptions by hand. Because their workstations could not be connected to the databases of the specialized subsidiaries; the techniques chosen were definitely incompatible. In 1999, Macif's management decided to completely overhaul its computer systems. The objective was twofold: on the one hand, to replace the agents' 6,000 passive screens with real, modern microcomputers that were pleasant to use thanks to their graphic presentation; on the other hand, to abandon the technical standards of the 1980s to adopt Internet computer protocols. "The priority was to make the advisors' work easier, to provide them with a more practical, more user-friendly tool," illustrates Bruno Marand, deputy IT director for the Centre region. An idea presented by passionate employees For Macif, organized into 11 departments and 550 reception offices, which has a portfolio of 4.3 million members and 13 million contracts, this project is large-scale. It mobilizes 40 people out of a total workforce of 300 IT specialists, costs 100 million francs and is spread over several years: after a technological monitoring phase in 1999, the IT specialists submitted their project to the mutual insurance company's strategic committee, which gave the teams eleven months to build the new architecture. This was implemented from August 2000 and its deployment is planned for another three years. The main originality of the new system is the use of free Linux software (see opposite). Why this choice? "In our specifications, we had set ourselves the priority of not finding ourselves in a situation of dependence on a supplier," explains Frank Kopernik. "And yet we have a few free software enthusiasts in the company. They managed to get this idea across." The change is, however, broader. Macif's IT systems are now organized into four different layers. At the first level, the most crucial, there are still very large IBM MVS computers, which contain the insurer's databases. All the information on insurance contracts, claims history, and member identity cards are stored in these memories. But the reorganization has made it possible to lighten the system: instead of the 12 computers of the old system, there are now only two. At the second level, still central, the IT specialists have installed 12 small "application servers", intermediate computers that use Internet standards: http and TCP/IP protocols and HTML language. Macif teams have developed ergonomic applications (software specific to a particular function of the company) that resemble Internet pages as much as possible. These are essentially applications for commercial use, to manage relations with policyholders: draw up quotes, record claims, take out new insurance contracts, etc. "Agents have a new application at their disposal, the member summary, which brings together information from various sources on each policyholder in a user-friendly presentation," explains Bruno Marand. "Thanks to search engines, they also have access to additional information." An example? A "memory aid" on insurance, a sort of cheat sheet that salespeople have online. This saves them from having to request information elsewhere when a policyholder asks them for complicated information. An Internet browser on each workstation It is for the third layer of IT that management has opted for Linux. Whereas previously each workstation was directly connected to the central systems, Macif has installed a local relay computer in each agency. There are more than 500 of these Proxy servers in total. What are they for? Frank Kopernik, the project manager, answers: "To improve performance, to speed up transmission speed, because we manage a lot of transactions. The proximity servers store all the static information." Space-saving and very flexible, these small servers contain, in a way, the new computer, graphic and ergonomic "forms" used by the agents so that, between them and the central databases, only the information essential to the transaction passes. Macif's Proxy servers run under the Linux operating system. Finally, at the fourth and final level of the IT architecture, Macif has equipped its employees with desktop microcomputers instead of the old passive terminals. Brand new, but very simply equipped, these PCs only have "browser" software to access in-house applications. "We deliberately restricted them," explains the project manager. "The agents have a blank blue screen, a start menu and an Internet Explorer browser." The insurer has dispensed with installing the classic office applications on the agents' workstations: only the secretaries need a word processor and a spreadsheet. "Ordinary" PCs can only open and view documents in Word or Powerpoint format. Technical solutions on Internet forums "That's the huge advantage of using Internet technologies," summarizes the IT director. "You don't have to install anything on the computers, the applications are immediately available and the workstations are cheaper to maintain." And a short day of training was enough for employees to be able to use the new functions. As for the use of free software, Macif says it is pleased with it today. The first advantage is autonomy and independence from the publishers, Microsoft in the front line, and manufacturers. "We can change machines without any problem because Linux runs on any computer. The system is not tied to the hardware, unlike the OS 400 system, for example, which only runs on an IBM AS 400 computer," comments the project manager. For Bruno Marand, it is almost a credo: "The operating system must be free, it is not good for a single publisher to have control over such vital software." Second advantage: stability, reliability and better control of the systems. "Technically, it works very well," says Frank Kopernik. Of course, Linux systems also have bugs, but the advantage, compared to Microsoft, is that a solution is found more quickly. "It can be found either traditionally, from specialist distributors, or... on the Internet, on discussion forums dedicated to Linux. At Macif, IT has acknowledged about ten incidents since the start of the project, all repaired in less than 24 hours. But to maintain these technologies, don't we need computer geniuses and free software enthusiasts? "No more than with more conventional software," replies the specialist: we also need very competent people to talk to the publishers.... A system that saves money Reliable, the system also has the advantage of costing less. "Given the number of servers that had to be installed, Linux was extremely profitable," notes Bruno Marand. In fact, the software is not entirely free: at Macif, it cost... less than 40 euros (250 francs!) from a specialist publisher to acquire the Linux CD-Rom before duplicating it for all the workstations. Jacques Le Marois, president of MandrakeSoft, a specialist service provider, explains: "We don't pay the price of the license. You can get a version of Linux for free, test it and validate it on a pilot site and then deploy it. Without asking for authorization." By opting to set up Linux proxy servers, Macif saved 50%. On the overall project, the saving is 4 million francs. Only 4% of the overall project? Certainly, but beyond that; the IT specialists consider that they have managed to get ahead of the game. "For us, IT is a production tool. You have to choose the right technology at the right time and make it last a long time. We opted for the Internet and took the Linux wave, because it will develop more and more," says Frank Kopernik. But isn't it expensive to change operating system to adopt such a standard? "In general," acknowledges Bernard Lang, research director at Inria, the National Institute for Research in Computer Science and Automation, "exit costs are very high when companies are linked to a publisher. A lot of training is required." But for Macif, which started with very old IT standards, the migration was easier. Next step: the insurer will study: switching application servers to Linux and is even considering experimenting with it for workstations. In a few years, the conversion could well be complete. THE PROBLEM Renew the totally obsolete IT of a major insurer, and reduce dependence on a supplier by reducing costs and improving user comfort. THE SOLUTION Replace the old machines with real computers with systems presented as Internet pages, and equip the servers with free Linux software. THE RESULTS The cost of the servers has been reduced by half, saving 4 million francs. And users have a workstation with better ergonomics.

## ###ARTICLE\_START### ID:417

Computers in schools. A delicate subject that never ceases to inspire passionate debates within the teaching community and among parents. Once the stage of acquiring computers is over, what to do with these marvelous machines? Isn't it time to appropriate this technology to learn how to use it intelligently, and this, for the good of our children? Last week's column earned its author many messages from all walks of life. Everyone notes with sadness that, unfortunately, even if our schools have never been so well equipped with computers, the same is not true for their integration into a teaching corpus adapted to the requirements of current school content. For example, Clément Laberge, an enlightened observer and creator of the excellent education website Infobourg (www.infobourg.qc.ca ), even offers an interesting and fair reflection (www.infobourg.qc.ca/AfficheTexte/Long.asp?DevID=1198 ) on the role of schools, teachers and technologies. "I read that the role of the teacher, which is already no longer the same as it was ten years ago, has not finished evolving towards that of accompanist, guide, mentor. I observe that information and communication technologies are profoundly transforming our relationship to knowledge and the ways of learning that result from it. "For this, we will certainly need a school that is radically different from the one we know. And to get there, we will have to practice questioning what seems self-evident, demonstrate constant ingenuity, accept taking risks, recognize the great value of innovation and allow ourselves to be disturbed by the ideas of others." Gilles Lemire, a doctor of linguistics and co-author of the book La Nouvelle Éducation, a fascinating work written with Pierre-Léonard Harvey, which we will discuss again next week, offers us an overview of very interesting avenues and solutions. According to Lemire, it would be appropriate to see what is offered to teachers in this area of ICT in school boards and put pressure on the MEQ to invest in teacher training. The MEQ should be more aware of its responsibilities in this regard and offer teachers a continuing education plan as engaging as the PPMF and PPMM - Programme de perfectionnement des enseignants de français, ou mathématiques - of the 70s, or the PPMEP of the 80s - professional education. The 1990s were the subject of much procrastination, but nothing had the impact of the investments of previous decades. For example, the $25 million for the PPMF should make Minister Legault react; in today's dollars, that's $50 million that would have to be invested to promote, as in other professions, training during working hours - three hours/week. Universities have, among other things, short programs of nine credits. Thus, in a year and a half, groups of teachers could have the essential introductions to new community tools; and this, in the perspective of the new education by basing learning on personal commitment. Unfortunately, their fear is of looking bad because they don't know how to use the computer and community tools and, consequently, they don't use them. Comments that Clément Laberge prefers to qualify because in his opinion, the fear of looking bad is not the only, nor the most important, factor that hinders the use of new technologies in schools. There are also, in particular, problems of access and reliability. According to Laberge, "there is a flagrant lack of examples of successful achievements to build pedagogical intuition/confidence regarding the services that ICT can provide in a learning context". "Teachers prefer to put their students in a context that they master well in order to be able to concentrate on their role as a support rather than that of a technician. Can we blame them for that?" says Laberge. Is it the fear of looking crazy? I don't think so. In my opinion, it is rather the expression of a form of responsibility that perhaps inhibits, it is true, the pedagogical audacity necessary to launch into ICT." Comments that leave one thinking and lead one to believe that solutions exist. All that remains for the MEQ is to apply them. Next week, free software, the other part of the solution.

## ###ARTICLE\_START### ID:418

Steve Jobs is not happy. The iMac pope also reacted strongly to the proposed settlement that would have Microsoft give underprivileged schools in the United States more than a billion dollars in software and other supplies. It must be said that the education sector is the preserve of the Church of the Holy Apple. In any case, Apple or Microsoft, are our schools sacrificing too much of their meager budget on the latest software packages and hardware, to the detriment of teacher training? The Marois plan had the advantage of allowing Quebec schools to catch up on their delay in computerizing classrooms. And we can only applaud Quebec for this initiative. Just like books, pencils and notebooks, the computer is now one of the essential tools for teaching knowledge to our little ones. However, to disseminate this knowledge, teachers must be able to use these tools as they wish, and with ease. However, it is sad to note that many of our teachers, due to lack of money and training, do not know how to do it. We therefore arrive at the following conclusion: our schools are now equipped with magnificent computers, which are too often underused. In our haste to equip schools, we have forgotten to put the necessary money into training. Only a few teachers with the required training, and especially enthusiastic volunteer teachers, helped by parents, who promote the integration of these computer tools, spend many hours designing projects to use computers to their full potential. It also happens that our schools receive their share of computers, but that they then sleep in a corner, victims of the meager resources allocated to the installation and networking of these machines. For example, at my daughter's school, several computers sleep in a corner, because the technician responsible for the school does not have time to connect them to the network. It must be said that with one visit per week, or even every two weeks, a technician already has enough to do to resolve common problems without being able to carry out a major installation that would take him several hours. But what will happen in a few years, around 2004-2005, when the budgets are exhausted, the question of hardware and software updates will resurface, guided in this by the commercial dictates of manufacturers and software publishers? According to Jean-Claude Guédon, professor of comparative literature at the University of Montreal and author of La Planète Cyber, "when the policy of computerization of schools is guided by considerations that are more statistical [recalling the old link between statistics and the State] than pedagogical, it condemns itself to smearing the traditional curriculum with a vague computer tint, quickly erased. Schools, it is true, have often taken pleasure in keeping alive fossil activities from bygone ages; they will doubtless shelter the lecture course for a long time despite the fact that computers reveal it as a picturesque residue of the industrial age. But we must not rely on latent forms of laziness to found good policies. "On the contrary, a serious policy of computerization of schools firmly takes the side of situating this computerization at the heart of the pedagogical process. It seeks in particular to transform this "living speaker" that is the traditional professor into a sherpa or a guide for the student. The figure of the teacher then disappears to reappear in the form of an active guide installed within a living dynamic where each student can actively manage his "learning career" in a context of mutual teaching. In addition, a policy aimed at a real appropriation of computer techniques and the Internet by education offers the opportunity to strongly reaffirm the idea that the school aims to train citizens and not consumers." It therefore goes without saying that the computer at school should raise "fundamental questions and lead to intense discussions". However, pedagogy remains almost in the background, while this is a fundamental issue. As a result, the student who finishes his courses corresponds to two distinct socio-economic profiles, depending on whether or not he has a computer at home. Jean-Claude Guédon notes that "in the first case, by dint of introducing mom and dad to the new family toy, the student appropriates the computer to such a level that school activities seem banal, boring and outdated. In the second case, it has acquired only a very superficial, largely passive and distant relationship with IT. Far from helping to reduce inequalities, the introduction of computers in schools can on the contrary accentuate the growing contrast between the information-rich and the information-poor, that is to say between rich and poor. Hence the importance of an intelligent policy in this area." We will therefore see next week what types of concrete proposals we could make to truly integrate IT into schools. And we will see that, in addition to humans, free software has an important place to take in this great movement.

## ###ARTICLE\_START### ID:419

In the coming weeks, federal judge Frederick Motz will have to rule on the amicable settlement of a hundred private lawsuits against Microsoft for non-compliance with competition. This agreement provides for Microsoft to pay more than a billion dollars in software, equipment and other supplies to educational institutions located mainly in disadvantaged areas. However, let us ask ourselves the question: does this agreement not offer a magnificent opportunity for the software giant to gain a foothold in a world traditionally reserved for the Church of the Holy Apple, but above all, to extend its monopoly even further? "This is a settlement that spares the company lengthy and costly litigation and, at the same time, will mark a change in the lives of millions of schoolchildren in some of the most disadvantaged schools in the country." - Steve Ballmer, president of Microsoft You speak Charles! This agreement, if accepted by Judge Motz, will likely put an end to a long legal process that began several years ago. But is it really the "slap on the wrist" that Microsoft deserves? Without believing in any kind of dismantling of the company, one would have thought that the American authorities would have been more vigilant, and above all, more severe, in the case of a company that has clearly violated American anti-monopoly laws several times. Several specialized columnists are asking the same questions. Michael Kanellos and Joe Wilcox, in an article published on the CNET/ZDNews site, believe that this agreement will rather allow Microsoft to extend its monopoly in an environment that traditionally was the one in which Apple was most established. Jean-François Codère, a journalist at the Quebec netmag Multimedium (www.mmedium.com ) also pointed out that "this offer was heavily criticized for several reasons. First, most of the value given to the donation is calculated on the basis of the sales price of the company's software, which is miles away from Microsoft's cost price. Microsoft was also accused of taking advantage of the opportunity to increase its market share in schools to the detriment of competitors". Fortunately, vigilant as ever, the Linux distribution reseller, RedHat (www.redhat.com ), has just changed the situation by offering Microsoft to donate only hardware, i.e. computers, for the initial value of one billion dollars. RedHat, for its part, is offering to offer free RedHat suites of free software, including the Linux operating system as well as office software, Internet navigation tools and several other useful and necessary software packages, to all schools in all districts in the United States. This proposal would increase the number of computers available to the school community in the United States from 200,000 to one million computers, or a ratio of 70 systems per school. Internet strategist Philippe Le Roux believes that RedHat's proposal makes sense and would allow the American government to "be able to use its computerization budgets more efficiently, like the French government, for example, which standardized Linux for government computer programs." Considering that there are more than one million students in school boards and that the goal is to have one computer for every ten students, this is a fleet of 100,000 computers. If we calculate an average of $300 per operating system (Windows XP Professional sells for $500), this is an expenditure of $30 million, enough to finance many ICT training programs! Especially when we consider that these operating systems have a lifespan of barely two to three years. Moreover, we note that the average cost of computers purchased by school boards is $1,483 (www.meq.gouv.qc.ca/drd/tic/pdf/bilan3.pdf) while a very good computer can easily be found for less than $1,000 without the operating system. And all this does not take into account the savings on free software offered on Linux that would replace the paid versions of this software on Windows. This could improve worrying figures, such as those on the use of NICT by teachers (less than 50% in 1999) for NICT self-learning activities or the dissatisfaction of more than 50% of teachers for everything related to support and pedagogy. At the government level itself, IT spending has not been compiled globally since 1996, but at the time it was $335 million (www.tresor.gouv.qc.ca/doc/acrobat/indic.pdf ), 45% of which went to the acquisition of hardware and software packages. It is a safe bet that the government's IT budgets have doubled or tripled since that time. A policy promoting the use of free software could therefore probably generate several hundred million dollars in annual savings, which would greatly help the education and health sectors serve us better. But the question to ask is this: are we ready to challenge Microsoft's dominance within the government apparatus? Are we ready to challenge the dependence of school boards on abusive price increases and other dictates from proprietary software publishers? Are we ready to make this major societal choice? We will talk about this again in the coming weeks.

## ###ARTICLE\_START### ID:420

Noël Mamère received the American pope of free software, Richard Stallman, on Wednesday at the National Assembly. The informal meeting was intended to enlighten the Green presidential candidate on the philosophy of "free", resulting from software, such as Linux, developed by volunteers and to which everyone can contribute. "For a long time, we have been fighting against the patenting of living things. And even if software is not part of living things, the appropriation of knowledge is a form of totalitarianism", the MP specified. Richard Stallman, in Europe until December 3, is the pro of the borderless evangelization of free software neophytes and one of Microsoft's bêtes noires. On Thursday evening, he donned a djellaba in front of students at Sup Télécom in Paris: "A program is like a cooking recipe. Between cooks, we exchange recipes, we adapt them to our taste, we perfect them, that's what free software is: sharing our knowledge with the community."

## ###ARTICLE\_START### ID:421

FREE PROZAC The American medical web magazine WebMD has launched a promotional campaign on the Internet and on television with the pharmaceutical group Lilly, which manufactures the antidepressant Prozac. Internet users who are taking fluoxetine (a generic version of the drug launched a few months ago) are being offered a free month's supply of the new formula Prozac, taken weekly. - (Reuters.) www.webMD.com FREE SOFTWARE Richard Stallman, historic founder of the free software movement and president of the FreeSoftwareFoundation based in Cambridge (Massachusetts), was to give a speech on Tuesday, November 20 at the National Assembly in Paris, at the invitation of Noël Mamère, deputy of Gironde and candidate of the Greens in the presidential election. The following day, Mr. Stallman plans to give a conference on the free and open source operating system GNU/Linux at the Ecole nationale supérieure des télécoms (ENST). www.fsf.org www.gnu.org

## ###ARTICLE\_START### ID:422

FORUMS The Usenet newsgroup archives, long managed by DéjaNews.com, have been bought by the Google search engine. Many users have protested the private company's control over these millions of messages. Some want the collection to be transferred to the United States Library of Congress, while others want to set up a free and open source, non-profit system. www.google.com www.dejanews.com MEDICAL RECORDS According to the Los Angeles Times, the complete medical records of sixty-two children and adolescents treated for mental disorders were mistakenly published on the University of Montana website, where they remained for eight days. Automatically detected by various search engines, the records were consulted by many Internet users. An investigation has been opened within the university. www.latimes.com www.umt.edu

## ###ARTICLE\_START### ID:423

THE CENTRE international de culture populaire (CICP), at 21 ter, rue Voltaire, in the 11th arrondissement of Paris, is a veritable hive of associations. From the Ras l'front collective to the Iranian Women's League for Democracy and the Movement for a Nonviolent Alternative, some thirty associations are crammed into its three floors. On the walls, posters calling for mobilization against the American strikes in Afghanistan remind us that the CICP is a hotbed of social protest. At the top of a spiral staircase, wedged under the eaves, five PCs are running at full speed and fingers are frantically typing on the keyboards. Clinging to the phone, Benjamin, twenty-four, makes his way between the computer carcasses lying on the floor covered with a dying carpet and fixes his gaze on the lines of code scrolling in front of his screen. It is 7:30 p.m. and Benjamin, without losing his calm, very methodically explains to his interlocutor - a union official entangled in the management of his emails - how to unblock his electronic mailbox. A confirmed computer scientist, the young man is not part of this cohort of small hands who ensure 7 days a week and 24 hours a day, the technical hotline of commercial Internet service providers (ISPs): he administers the network of the GlobeNet association. Stuck in the attic of the CICP, the structure hosts, on the Web this time, the sites of a multitude of actors of the civil society. The Center for Research and Information on Development, the Confédération paysanne, Emmaüs International, Droit au logement, Terre des Hommes, Peuples solidaires or Artisans du monde, nearly 200 associations have chosen globenet.org to establish their presence on cyberspace. There is nothing surprising in this success: GlobeNet has embodied and put into practice since its creation in 1995, the values of the solidarity and non-commercial Internet. "Our goal is to facilitate the appropriation of information and communication technologies by the third sector and to promote their uses in the service of active citizenship, international solidarity and local development", summarizes Florence Delahaye, volunteer president of the association. Because GlobeNet, which launched into hosting sites well before Wanadoo or AOL decided to make it their business, is not an Internet access provider like the others. SHARED INFORMATION This tiny structure that operates with four youth jobs, a solidarity employment contract and the dedication of a dozen volunteers including a few seasoned computer scientists who are free software activists does not just offer a refuge on the Web to its members. For an annual fee of 250 francs and a contribution to costs (210 francs per quarter, for example, for unlimited access to the Network) because salaries have to be paid, GlobeNet also offers its members the design and maintenance of their sites as well as training in the use of computers and the Internet. These are all valuable services for movements that want to invest in the Web to strengthen their national or even international visibility and improve their cooperative work both internally and externally, but rarely have the funds, technical skills or time to do so. "Associations express needs in terms of communication," explains Henri Galvan, treasurer of GlobeNet, "we translate them into tools." Thus, the alternative host has created a platform on its site that pools information and documents related to the themes on which its members are mobilized. "The Internet multiplies the actions of associations," concludes Florence Delahaye. The main interested parties also seem convinced of this. The association claims to be refusing new membership applications every day.

## ###ARTICLE\_START### ID:424

From November 8 to 10, the first Rencontres du multimédia, de l'Internet citoyen et solidaire (Remics) will be held in Haillan, near Bordeaux (Gironde). Whether they are involved in social, civic action or the solidarity economy, these activists, who share a non-commercial conception of the Network, will try to unite. AMONG THEM, Ken Lohento, a young Beninese president of an NGO, who is counting on new technologies to make Africa's voice heard and fight against the North-South divide. THESE ACTORS of the citizen Internet have written a book of proposals that they will present in December in Lille, before the Alliance for a responsible, plural and united world. THE INTERNATIONAL CENTER for popular culture, in the 11th arrondissement in Paris, is a hive of associations that is trying to build a non-commercial Web. IN THE KINGDOM of the Internet, citizens are determined to dispute the throne with merchants. Until now scattered, they are counting on the first European Meetings of Multimedia, Citizen and Solidarity Internet (Remics), which are being held in Haillan, near Bordeaux (Gironde), from November 8 to 10, to get into battle order. "Despite the setbacks of the net economy, few political leaders have realized that the Network does not only have a commercial utility", regrets Valérie Peugeot, one of the main architects of the meetings, member of the Vecam association (European and citizen monitoring of information highways and multimedia) and also one of the founding members of the Attac association (Association for the taxation of financial transactions to help citizens). WEALTH AND WEAKNESS Whether they are involved in the field of social, civic action or the solidarity economy, the players of the "citizen Internet" share this conviction that information and communication technologies (ICT), used well, can contribute to social and not just commercial progress. Thus, in a working-class district of Barcelona, the Ravalnet association is trying to get kids off the streets by putting them in front of computers. In Bologna, Italy, the municipality is trying out electronic democracy to involve its citizens more in the management of the city. And in France, the "digital hosting cooperative" Ouvaton is bringing Internet access providers into the era of the social economy. But this wealth in terms of actors and initiatives is also the weak point of a movement that is in full structuring. Indeed, what do the concerns of computer scientists who are activists for free software, of facilitators of public Internet access points, of local authorities or of leaders of non-governmental organizations (NGOs) struggling to democratize the Network in Africa have in common? "We expect the Haillan meetings to lead to the beginning of the organization of the multitude into collectives capable of weighing on public opinion and on politics in order to counterbalance the influence of those who see the Internet as nothing more than a tool for doing good business," summarizes Michel Elie, head of the Internet Usage Observatory. The movement is underway. In May, around ten organizations came together in the I3C association (Internet citoyen, coopératif et créatif, www.i3c-asso.org) to begin to connect at the French level all those who share a citizen approach to the Network and prepare the Remics. And in December, the second world congress of citizen networks will be organized in Buenos Aires by the global partnership of citizen Internet networks (EACN). Because citizen-Internet users first organized themselves at the global village level before thinking of coming together at the local level. Artur Serra, the Catalan president of EACN, thus expects the meetings to lay the foundations of "French digital civil society" and believes that "citizen networks are technologies of social change". The fact remains that citizens, even if they are digital, will have difficulty disrupting the progress of the world if they do not form more alliances with traditional civil society actors, starting with the liberal anti-globalization movement. In January, there were not many defenders of the citizen Internet who made the trip to Porto Alegre to participate in the first World Social Forum. "UNITING THE ACTORS" Conversely, few are the opponents of the global economic order who, like Laurent Jesover, webmaster of Attac, are present in Le Haillan. "We have not yet begun a deep reflection on the Internet, which, while it is a formidable tool for activism, remains at the heart of financial globalization and the commodification of the world," acknowledges the webmaster, who is counting on the exchanges - which the meetings should provide him - with "people who think about the Network" to catch up. "The whole difficulty is to unite actors who come from two different horizons: the social and the technical," summarizes Valérie Peugeot. The ability of "civil society" to make its voice resonate on the World Wide Web and to actively participate in the construction of a "global information society" currently largely guided by the appetites of the large telecommunications groups will depend on this synthesis. Valérie Peugeot therefore intends to take advantage of the Remics to "set up a small working group in France that can be articulated at the international level" in order to prepare the first world summit on the information society, which will bring together the main heads of the United Nations member states in Geneva at the end of 2003, and should grant a place - as yet undefined - to the third sector. But the young woman has few illusions. She has in fact had mixed feelings about her participation in the group of experts that the G8 had set up and, an unusual practice for this type of organization, open to the private and "non-profit" sectors, in order to consider reducing the "digital divide": the work was ultimately the subject of only a press release of about ten lines at the Genoa summit in July. "It is not enough to be invited to a discussion table to enter into a process of participatory democracy, believes the head of Vecam, we also need to invent the democratic conditions for this dialogue." For Bertrand de la Chapelle, responsible for governance issues at the French Institute of International Relations, it is up to the actors of the citizen Internet to make this effort. "They have a historic responsibility to make the public authorities understand that the Network is fundamental to setting up a new participatory democratic process," believes the man who until a few months ago headed the ICT division of the Quai d'Orsay. "The world today calls for new models of governance that will only see the light of day by associating the public, private and civil society sectors, of which the citizen Internet is an avant-garde."

## ###ARTICLE\_START### ID:425

The phenomenal capabilities of the Google search engine continue to impress and generate buzz. In fact, it is now possible, through very specific queries, to find and search the databases of companies whose content reveals the personal and confidential information of their customers. Since last Friday, the Google search engine has been listing and indexing, in addition to traditional Internet pages, Word, Excel, PowerPoint and Postscript documents. However, after an investigation conducted in collaboration with Éric Baillargeon, a specialist in Internet site referencing, Le Devoir discovered that it was also possible to search for documents from databases such as Microsoft Access and DBase. Although the vast majority of documents do not reveal any personal or confidential data, by combining a few judiciously chosen keywords, we were able to find other files full of private information in just a few minutes. Credit card and telephone numbers, email addresses, IP addresses, social security numbers (the American social insurance), it is possible, for those with some knowledge of research, to build a particularly eloquent file of personal data and, who knows, to defraud the companies issuing credit cards. According to Éric Baillargeon, however, this is only the tip of the iceberg. Indeed, "Google indexes a first layer of the Internet between four and six weeks and then reaches its full potential four months later. Assuming that the process of indexing the new files only began last week, with the entry into force of Google's new features, it is therefore logical to conclude that it is not for several months that Google will deliver a maximum of confidential information." Google's vice president of communications, Cindy McCaffrey, explained that "Google has a policy of not indexing any information located on secure servers. The only information that can be found in our index is information that is published on public servers. We cannot be responsible for any confidential data that may be listed by our search engine. As our engine grows, people will need to become aware of the importance of security. Our site also clearly indicates the methods to adopt to prevent our engine from indexing all or part of a website. If, however, through any error in the handling of a webmaster, it happens that Google lists strategic information, the site manager could send us a request for the permanent removal of this data from our index, and this, within 24 hours." According to what Le Devoir has observed, the owners of domain names ending in .qc.ca (Quebec) and .ca (Canada) are much more cautious than their counterparts across the border. However, domains ending in the suffixes .com, .net, .org (many of which are located in Canada) and .mil (military) are those that reveal the most secrets. For their part, the sites of the governments of Quebec and Canada seem as white as snow. Will this discovery not be enough to definitively discourage consumers and businesses that hesitate to use the Internet for e-commerce? René Barsalo, vice-president of the Montreal company Dynec, which markets software that facilitates e-commerce, does not think so. "There is no danger in doing e-commerce with serious companies and people, using proven technologies. It is clear that the problem raised today concerns companies and independents who do not respect the minimum security standards. Normally, any file of this nature must be stored on secure servers." Comments that Philippe Le Roux, Internet strategist and designer of several e-commerce sites such as Via Rail, confirms. "People will have to learn that there are enormous differences between tools like Access and powerful database servers like Oracle, Sybase or MySQL, an open-source software. In addition, even when using this software, it is important to verify that private information is encrypted to ensure maximum confidentiality."

## ###ARTICLE\_START### ID:426

There are lucky patients. One day, they are warned that they will have to amputate; some time later, they are told that a slightly unpleasant injection will be enough to solve the problem. This is a bit like what has just happened to Microsoft. In this case, the illness is a trial that has pitted the company against the American government since May 1998. And the miracle cure, a complete change of direction by the same government. After leading a fast-paced trial, it abandoned its desire to see the company dismantled in early September, before announcing an amicable settlement on Friday, with the aim of ending the proceedings. The draft settlement, which still needs to be ratified by the 18 states associated with the complaint, is excessively technical. It is far from the grand spectacle offered by a trial full of twists and turns, far from the flights of fancy of David Boies, the government's lawyer, tenacious and ingenious, who never stops until he traps the witnesses presented by Microsoft during the hearings. We are also far from the radical sanction imposed by Judge Jackson on June 7, 2000, before being overturned by an appeals court: the splitting of the company into two independent entities; no less. Latitude. Today, it is above all a question of giving more latitude to computer manufacturers in their relations with Microsoft and more information to its competitors who produce software for its Windows platform. Manufacturers are authorized to add to Windows the software of their choice. Microsoft is prohibited from penalizing those who would use competing products. Will these measures be enough to achieve the objective initially set by the American government? "This action will protect innovation by ensuring that each software developer can have fair access to the market," predicted Joel Klein, the head of the antitrust division of the Department of Justice, when launching hostilities. But today, Windows XP, the brand new version, with its host of pre-installed in-house software (e-mail, instant messaging, audio playback, etc.), is not affected by the agreement. Also unaffected: the Passport system, designed to centralize private data relating to users of Microsoft's Internet services. Competitors and opponents do not hide their disappointment. "It's a joke," complains Bernard Lang, the vice-president of Aful (French-speaking Association of Linux and Free Software Users), which seeks to promote the use of non-Microsoft software. "They are giving the company a big slap on the wrist by telling it: 'You mustn't do this again.'" And it is not one of the most original provisions of the agreement that comforts Microsoft's adversaries: three independent IT experts are supposed to monitor, within the company, compliance with the commitments made. "What are three experts monitoring all of Microsoft's software production?" asks Bernard Lang. Prosecutions. At Microsoft France, they were waiting on Friday to "see more clearly" before reacting. It remains to be seen whether the 18 states associated with the government's complaint will follow suit. Judge Colleen Kollar-Kotelly gave them until Tuesday to decide on the amicable agreement. Before the announcement, several states had said they were determined to continue individual prosecutions if they felt that the Justice Department was being too lenient. Today, they are under strong pressure to rally to the federal government's position. Without necessarily being convinced by its miracle cure.

## ###ARTICLE\_START### ID:427

Summit meeting yesterday at Matignon: Lionel Jospin received Lou Gerstner, the boss of IBM. According to official sources, the number 1 of the world's leading IT group had "wanted to talk" with the French Prime Minister on the occasion of one of his "regular visits to Europe", after having already spoken with Tony Blair and Gerhard Schröder. What did they talk about? The future. The evolution of IT and Internet technologies. Electronic administration and all those things. And then also the prospects for "e-business", dear to IBM's heart. The Prime Minister asked Lou Gertsner for his opinion on the "action programme for the information society", launched by France in 1997 but still relatively little known outside our borders. An opinion that we will not know: the IBM boss refrained from any comment on leaving Matignon. Option. Times are changing. Yesterday, when Dominique Strauss-Kahn was Minister of the Economy, it was Bill Gates who was consulted before paving the "information highways". Now, it is IBM that is being questioned. In other words, the opposing camp. Because, for some time now, Big Blue, as this large company is nicknamed, has been taking a malicious pleasure in singing the praises of "free" software, this anti-Microsoft missile (at Bill Gates, on the contrary, there is a cult of copyright). "One of IBM's strategic choices is to support the development of royalty-free software, which interests us because a certain number of important applications of electronic administration work on this type of solution", it was stressed at Matignon. France has therefore opted for "free", and suddenly Bill Gates is rare under the paneling of the Republic, this ungrateful one.

## ###ARTICLE\_START### ID:428

Until the software is released tomorrow morning in New York, a small counter will continue to count down the seconds, minutes, hours and days on the Microsoft website. The release of Windows XP, the new operating system from the company founded by Bill Gates, is being orchestrated down to the last detail. Security measures have been stepped up and the launch ceremony is still shrouded in the utmost secrecy. The receipt of a letter that ultimately tested negative for the anthrax bacillus at a Microsoft subsidiary in Reno, Nevada, even led the American company to further tighten the security measures put in place after the September 11 attacks. As serious as it may be, no event has been able to hinder the launch of Windows XP. This new program is a sign of the technological and commercial vitality of a company that has been in the crosshairs of the American Department of Justice for four years. It is accused of abusing its monopoly and therefore distorting competition. But thanks to an army of lawyers, the world leader in microcomputer software has so far escaped the worst. Its split into two companies, with operating systems on one side and other activities (Internet services, software, IT services, etc.) on the other, has been buried. Despite its conviction for abuse of a dominant position, the threat of a breakup was reduced to nothing with the arrival of George W. Bush, from the ranks of the Republican Party, at the White House. It was the Democratic administration that had initiated the trial in October 1998. Across the Atlantic, consumer associations, senators, elected members of the House of Representatives, competing companies such as Kodak and RealNetworks, and the American Department of Justice have tried to block the release of Windows XP. At the end of September, four consumer protection associations asked the United States government to include the new program in the case already underway. They justified their request by stating that "Microsoft's new set of software and services will develop and strengthen the group's illegal monopoly and significantly harm consumers." Their request has been dismissed for the moment. American parliamentarians have also been very virulent towards the new system. But the attacks of these elected officials, often Democrats, have been calmed after the compromises negotiated by Bill Gates' firm with some of its competitors, including Kodak, last summer. The photography firm demanded that changes be made so that functions related to digital images would not be reserved for Microsoft partners. The latter made a gesture. "The programs included in the Windows XP desktop cannot be deleted. They are an integral part of the operating system. But our competitors' software can be added," assures Alexis Oger, technical director of products at Microsoft France. However, the opening is limited. Windows XP contains several of the group's programs, in particular the MediaPlayer software which allows you to listen to music and watch videos. And here again Microsoft is continuing on its path while on this side, it must face the threat of the European Commission. After an initial investigation launched in August 2000, following the complaint filed in Europe by the American Sun Microsystems on Microsoft's operating systems for servers (microcomputers that control a computer network), Brussels is now examining the case of MediaPlayer. Investigators have discovered that Bill Gates' firm had engaged in highly questionable practices. Microsoft is said to have written testimonials in its favor or requested letters of support from its customers without explaining the use of these letters. Prudent, Mario Monti, European Commissioner for Competition, recently assured that no sanction has been decided for the moment. Microsoft risks, at most, a fine that would reach 10% of its annual turnover, or some 2.75 billion euros. This amount is considerable but is it dissuasive in view of its cash flow of 34 billion euros? However, "at this stage, the Commission is not investigating XP, officially or unofficially," assures Mario Monti's spokesperson. In the meantime, American judge Colleen Kollar-Kotelly, in charge of the antitrust trial since the end of August, is focusing on a single objective: finding an amicable agreement between Microsoft and the American Department of Justice. To facilitate the search for a compromise, the judge has just appointed a mediator Eric Green, professor of law at Boston University, proposed by both parties. The negotiations are due to conclude on November 2. If the discussions fail, Colleen Kollar-Kotelly has warned that she will take very severe measures against Microsoft next March. And then Windows XP might not escape the wrath of the American justice system. MC

## ###ARTICLE\_START### ID:429

ENCRYPTION California-based Network Associates, which sells the corporate version of the encryption software PGP, said it plans to stop doing so because demand has slackened. Sales have likely been hampered by the fact that a consumer version of PGP is available free on the Internet. Meanwhile, the independent FreeSoftwareFoundation of Cambridge, Mass., has developed a completely free version of PGP, called GnuPG, that is now compatible with Linux and Windows operating systems. www.networkassociates.com www.shareware.cnet.com www.fsf.org DOMAIN NAMES NeuLevel, which is selling Internet addresses in the new ". biz" domain, held a random drawing to decide who had applied for the same address. A U.S. court ordered Neulevel to refund the unlucky applicants. The ". biz" domain will be activated on Oct. 23. (Reuters.)

## ###ARTICLE\_START### ID:430

The prices of the latest updates to the Windows XP operating system have cooled the enthusiasm of many users, as evidenced by the email from the not very humble and the comments received on the Devoir website. Many are even wondering if there is an alternative solution on PC. Many readers, simple users and not professional tinkerers, have confirmed it: it is now possible to do under the Penguin everything that the majority does under Windows. At the end of 1999, with the collaboration of the netmag Multimedium, I undertook an experiment that people still talk about: living only under Linux. On that occasion, Jean-Claude Guédon, professor of comparative literature, member of the Internet Society, author of La Planète Cyber and apostle of the Penguin, wrote these few lines as a preface to the experiment. "Michel Dumais may not know it yet, but he is going to enter the community. He should not worry, it is neither about getting tonsured, nor about taking a vow of chastity. It is simply about establishing with his computer, and through it, another relationship with his fellow citizens, his friends, his neighbors. It is about abandoning certain forms of infantilization that consumer society engenders, also abandoning an attitude where individualism begins to resemble isolation, alienation, passivity, the ability to buy - and simply buy - services. "Entering the world of Linux and that of open-source software means wanting to participate in a movement that is trying to redefine computing in a way that is more favorable to the real needs of each of us rather than passively following the paths created by the Microsofts of the world to optimize their quest for profit. This decision seems urgent in light of recent events, such as the lawsuit that the Department of Justice of the United States government has brought against Microsoft. Michel Dumais, in trying to live with Linux, is not changing products; he is rather exploring the possibility of changing technological parties." (www.mmedium.com/dossiers/linux/guedon/ ) Today, in 2001, Linux servers have established themselves on the Web, and there is not a network administrator who does not consider installing a Linux server as the operating system of choice. But what about the desktop? I could tell you at length about the possible uses of the Penguin, but I prefer to let a reader, Raymond Ouellette, like you, a simple user, speak. "I have been using Linux for over three years and I have not missed any Windows software since I made the bet to use free, efficient software that is compatible with the planet, with standards such as those of the W3C, not with Micro$oft products. "I challenge anyone to install, from scratch, a computer with Windows and another with Linux, and you would be surprised to find that Linux is easier to install. Try a free Mandrake distribution (www.mandrake.com ) for example, or a Red Hat (www.redhat.com ) and you will see. When the operating system is installed (or pre-installed), the graphical interfaces all look the same and a new Linux user, ex-Windows or Mac, would not feel lost. Three years ago, I admit, it would have been different - Linux has come a long way since then. [Note from the PTH: check out the KDE interface, www.kde.org , you will let me know.] Linux lacks nothing. To convince yourself, take a look at the Freshmeat site (www.freshmeat.net ) for example." The almost common application for everyone, an office suite like Office, has its free equivalent and just as powerful and compatible with the Microsoft suite: Star Office (www.sun.com/software/star/staroffice ). The Word Perfect and Corel Draw suites are available in native Linux mode. But you can also take a look at K Office (www.koffice.org ) which even includes, for free, a Visio clone. Based on this same K Office suite, the company Hancom (www.hancom.com/en ) offers its office version, HancomOffice, which will work under Linux, Windows and Macintosh. Personal accounting is not left out with Kapital, from the company The Kompany (www.thekompany.com ), a little twin brother of Quicken. Also, Filemaker Pro makes its appearance under the sign of the Penguin. And we must not forget that the vast majority of Linux applications are offered in several languages, including French, internationalization being a characteristic of open-source software. And, once again, all of this software reads and writes in the common file formats of the Windows or Macintosh world. So, ready to test the alternative to Windows and Mac? PTH on the Web You have been asking for a long time: "How come the not very humble does not yet have his site? Laziness? Lack of time? All that and more?" Readers, I understand you. As of today, micheldumais.com will be online. At first, and unlike me, this site will be modest, but over the coming days and weeks, it will be enriched with several sections including practical advice, Penguin, Windows and Sainte-Pomme sections, a discussion forum, small surveys, etc. Lots of little things that unfortunately, the limited paper space of Le Devoir prevents me from delivering to you, and which will be an added value to the published articles. But be indulgent, as I told you, it will be a modest start.

## ###ARTICLE\_START### ID:431

The advocates of free software are not giving up. The AFUL (French-speaking Linux Users Association) and April (Association for the Promotion and Research in Free Computing) were received last month at the Prime Minister's office. They asked, in particular, for clarification on the government's position on the thorny issue of software patentability. For many, the fight against the patentability of "computer-implemented inventions" seemed, at the end of the summer, to be a lost cause. The report submitted on July 18 by the Academy of Technologies, in favor of patenting computer programs, had been perceived by defenders of open source as the beginnings of an official government position on this issue. Especially since the document submitted by this institution, created in December 2000 and emanating from the Academy of Sciences, had been highlighted on the official Matignon website - an "abnormal advertisement", according to the associations. Some people announced that the opinion of the Academy of Technologies would largely determine France's position at the European Commission, which must draw up a directive on the subject (see "Monde interactif" of September 12). Divergent reports On this point, the associations received some assurances from the Prime Minister's office. And these initial speculations are vigorously denied by Lionel Jospin's entourage. "The report of the Academy of Technologies was put online on the Prime Minister's website in the same way that all reports and opinions commissioned by the government are put online, explains a close friend of Lionel Jospin. This in no way prejudges the government's position on this matter!" However, specifies Stéfane Fermigier, president of AFUL, the press release relayed by the Prime Minister's office was "particularly biased". This press release, posted on the government website, stated as a conclusion that "all [of] the recommendations [of the opinion of the Academy of Technologies] should make it possible to put an end to current abuses and contribute to strengthening the legal security of patents for the future". A way to close the debate? The associations were convinced of it. In any case, this little sentence, which had stung the opponents of patents, disappeared from later versions of the text. However, those close to Lionel Jospin are surprised by the "intention trial made against the government" by the associative world. The creation of Atica (Agency for Information and Communication Technologies in the Administration), on 22 August, is particularly highlighted. An agency which, it is specified in the Prime Minister's entourage, "encourages administrations to use free computing". "Given this, I think it is not possible to say that this government is against free software and those who use it," continues this official. In cooperation with the AFUL, this agency, which reports directly to Matignon, has notably set up "free software workshops", places for raising awareness and training in open source in administrations. For Frédéric Couchet, president of April, associations are nonetheless "systematically kept out of debates and consultations". The president of April also denounces the "very strong pressure exerted by large industrial groups to have the idea of a software patent accepted". In fact, the Academy of Technologies did not see fit to consult defenders of free software prior to drafting its opinion, preferring, to a large extent, managers of large companies. A Pandora's box Users of free software, as well as companies that have built their development plan on open source or software SMEs, are nevertheless on the front line. The possibility of patenting "computer-implemented inventions" would, according to them, sign the death warrant of any collaborative and voluntary development activity. For them, authorizing such an extension of the notion of patent would amount to opening Pandora's box: all "intangible creations" would therefore be patentable and, as such, algorithms, mathematical and intellectual methods, etc. All things which, under European law, cannot be the subject of a patent, but which are protected by copyright. However, it is recalled in the Prime Minister's entourage that the opinion given by the Academy of Technologies is not, far from it, the only contribution to the debate. During their meeting with the associations, the Prime Minister's advisors recalled that not only was nothing set in stone for the time being, but that bodies other than the Academy of Technologies were looking into this matter. A working group of the State Secretariat for Industry is due to submit a report on the subject shortly. As for the one commissioned by the General Council of Mines, it believes that the software patent would have a negative impact on innovation and competition. The opinion of the Coordination Committee for Information and Communication Sciences and Technology (CCSTIC) - a department of the CNRS - is of the same opinion. As for that of the Economic Analysis Council, it is still awaited.

## ###ARTICLE\_START### ID:432

"When the Tycho Rebellion began in 2062, the universal right to read soon became one of its main goals." Richard M. Stallman, The Right to Read, 1997. "Hurry up and buy FrontPage 2002." This call is somewhat surprising when you consider that it is being made on Linuxfr.org. In fact, it is less Microsoft's website creation software itself than its user license that arouses the ironic, if not annoyed, admiration of the Linux community. While the practice is not exceptional in itself, one of the legal clauses, appearing in the end-user license agreement (EULA) of the latest version of FrontPage, is at least surprising. This clause stipulates that it is forbidden to "use [certain components of this software] on a site that disparages Microsoft, MSN, MSNBC, Expedia or their products or services, infringes the intellectual property or other rights of these parties, violates a federal or international law, or promotes racism, hatred or pornography." While this affair has now sparked an outcry among developers and webmasters, it should nevertheless be remembered that this is not Microsoft's first attempt to protect its image at all costs and thus nip any dispute in the bud. Last January, ZDNet magazine already revealed that Hotmail/MSN (a Microsoft subsidiary), under the pretext of fighting spam, was filtering posted messages based on an unknown list of words and expressions and even allowed itself to throw away some of them without bothering to notify the sender. Technical procedure for controlling users, regulations that infringe on freedom of expression, these revelations can only worry users of the products of this company which, let us remember, aims to hold a monopoly position on the market. Beyond the ridiculous, if not puerile, nature of such an approach, this affair illustrates a major shift in the way companies think about selling software products. Today, it is no longer a question of selling software strictly speaking, but of renting its use under conditions previously defined by the company itself. Use it, don't own it. This shift from a right of acquisition to a temporary right of use, to a rental in other words, constitutes, according to Jeremy Rifkin, one of the fundamental elements of the revolution of the new economy in which the license no longer specifies only the conditions of the transaction, but also the conditions of the use of the product itself. The new Office XP professional license, considered by many as a transition to the ASP (Application Service Provider) model, is a perfect illustration of this principle: the company no longer buys a software tool but rents its use for a given period. From a legal point of view, therefore, it could possibly be an abusive clause, but in no case an attack on freedom of expression defined by the First Amendment of the American Constitution, as some have tried to put forward. In these conditions, in fact, freedom of expression is no longer necessarily part of the field of public law, but can also be the subject of a private law clause between the service provider and the user.

## ###ARTICLE\_START### ID:433

As in good establishments, the frontage mentions: "cafeorbital.com, since 1995". In other words, in the world of the Internet, since prehistory. In six years of existence, this pioneer of Parisian cybercafés, located opposite the Luxembourg Gardens, has serenely witnessed the proliferation of its counterparts, in parallel with the development of the Internet universe. When he decided to embark on the adventure, Nicolas Jardry, thirty-five years old today, was still a photographer. The world of the Net was totally foreign to him, as it was to most French people. By chance during a stay in London, he discovered the European ancestor of cybercafés, Cyberia, in 1994. "It was a shock," Nicolas still remembers. "Everything we talked about afterwards, the Web, email, communication, everything was already in place. But at the time, it was new and underground." He returned from the British capital with a four-page report... and the idea of opening the first cybercafé in Paris: "When I talked about it to people around me, people said science fiction!" But that didn't stop him from raising a start-up capital of 100,000 francs and surrounding himself with three people. Above all, he followed an intensive, on-the-job training course in IT and new technologies. Especially since, from the start, he opted for free software: "In the six months before opening, I dove into it completely." At the same time, he also managed everything related to the creation, concept and monitoring of the project. "At the time, just getting online was complicated," he says. "There were only five or six access providers on the market." In April 1995, Café Orbital opened its doors, with six PCs equipped with a 64kbits/s connection. The media rushed to join and ensured that the place was a critical success. Many curious people came to learn about the Internet, mainly the joys of online messaging. "That was before the explosion of email. We provided addresses at cafeorbital.com, which people could consult on site. We have since removed this service, but in the heyday, we managed up to 3,000 addresses." While Nicolas Jardry thought he would continue his career as a photographer at the same time, he quickly realized that the two were irreconcilable and decided to focus solely on Café Orbital. For two years, the place would be "experimental." "We didn't really know if it would continue," he says. "From 1997-1998, we started to think that it was a real job. We did a lot of training in companies. We also organized events." Over the years, the clientele, very international, has grown, attracted by this calm and atypical place, where an "arti sanal" spirit reigns, desired and maintained by Nicolas Jardry and his team. The thirty or so available positions, on the ground floor and in the basement, are occupied most of the time. "Today, we do less training," he notes. "We are dealing with an informed public. We are betting everything on the welcome." This is why the arrival in Paris last spring of the EasyEverything chain, which promotes the hour of surfing for 10 francs, did not worry him: "We experienced it quite calmly. It allowed us to position ourselves as specialists." This notion of "specialist" is all the stronger since, from the start, Café Orbital accompanied its general public activity - the cybercafé - with a service provision activity intended for companies, called Orbital Network. In 1995, after six months of existence, the team, with its know-how, produced the first models for the Evian site. "It was our first project, it started off strong. We had, and still have, good experience of the public's demands and expectations. This experience has helped us in our projects aimed at professionals." Since then, Orbital Network has been born and positions itself as a web creation agency. It has around fifty projects to its credit, including the development of the website for the fashion brand Céline, Galeries Lafayette and the Guimet Museum. "This activity came naturally," summarizes Nicolas Jardry. Moreover, it will soon constitute 100% of his activity: he is preparing to put away his cybercafe owner's apron, since Café Orbital is for sale...

## ###ARTICLE\_START### ID:434

Economy of means, humor and distance are on the menu of the Swiss webzine I Love U, which celebrated its fiftieth edition in September, with an issue soberly entitled Bande de cochons, under Copyleft license (1). The art of diverting the most common practices on the Net, requests on the ass and its derivatives, with playful and animated interpretations around the pig: buttocks that move, disguised as pigs, develop a minimalist scenario, that of the "good guy against the bad guy". I Love U is a curious and disconcerting editorial object, which offers basic navigation, with always the same presentation, without text. This "non-commerce platform for cyber artists, photographers, graphic designers, electronic musicians, etc." addresses a different theme each month, the planet Mars in October (sic). As a final editorial, "Life on Mars" concludes a series of funny and offbeat photos, which gently stigmatize Microsoft: in Pigs and Pirates, a band of little pixel pigs invade a Windows Only field. (1) The left of author, as opposed to copyright, claimed by the supporters of free software: artlibre.org/licence/lalgb.html

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## ###ARTICLE\_START### ID:436

"And how do I get a patch on your email with my cable?" The man is feverish. The atmosphere is smoky and electric. The scene takes place in a basement in Paris, one evening at the end of August. A dozen musicians, graphic designers, web designers and sound designers are waiting their turn to appear on the giant screen: they have discovered Nato0+55 for five days and intend to give a live demonstration of their creativity (1). Looping images, lightly touched drums triggering videos, video captures of the audience... the first impression of sound and visual confusion is not the right one. You have to talk to these creators to understand that a breath of fresh air is blowing in the programming world: artists are keen to write computer programs, which will then be enriched by others, the work of one being used by the other for a re-creation. This software opens up so many perspectives for performances mixing sound, visual and interactive elements in real time. It is now possible to imagine that an image plays music, that sounds generate videos, that a dancer equipped with sensors triggers a score... At Fiftyfifty (2), a Spanish collective that provided part of the training, the guiding principle is contributory work in the manner of free software computer scientists. On stage, the DJs' machines, connected to those of the VJs (video jockeys), are all on the same level: no one decides on the movement or direction of the set. It is not surprising that Dadata (the name of the live group) uses Nato0+55: more and more sound designers and musicians are adopting this program that integrates photos, videos, sounds, etc. (3). A sort of sophisticated virtual mixing table, which allows musicians and visual artists to speak the same syntax. It may not seem like much, but it changes everything. The artist Netochka Nezvanova, who won an award at the last Transmediale in Berlin (4), used Max/MSP, Ircam's flagship software, as the basis for her work that straddles the line between computer science and art. It may not be a coincidence: the researchers at the Institute for Research and Coordination in Acoustics and Music are also musicians (5). "The effects are very organic," explains Jash, a Swiss musician. "You can see what you're playing." Music for the eyes was born... (1) The workshop program: www.wkmx.org/prs082001/

## ###ARTICLE\_START### ID:437

The Academy of Technologies, created on December 12, 2000 to replace the Council of Applications of the Academy of Sciences (Cadas), issued an opinion to the Prime Minister on July 18 in favor of the patentability of "computer-implemented inventions." In what way is the patentability of software essential - or harmful - to the development capacity of French companies? Jacques Vincent-Carrefour: The patentability of software is a move made by the United States. They will not return to the subject. Neither will Japan. In this context, saying that Europe can stay away is illusory. We cannot be in a world of free competition with fundamentally different rules. The second point is that the added value of companies today lies in software. So wanting the achievements of these companies not to be protected, that they can be plundered in any way, is extremely embarrassing. I would remind you that the counterpart of the patent is publication. And that the patent was invented to prevent inventions from remaining secret. The third reason is that companies, in their negotiations, increasingly need to put on the table a heritage that is partly made up of patents. Finally, we are today in the worst possible situation. Most people are unfamiliar with patents in the software field and think that it is not possible to take them. So, they do nothing. In the meantime, the Americans and companies that are aware of these things are extending patents in Europe. (...) The situation is extremely unclear: theoretically, patents are not authorized, but in practice, it has become the rule in the United States. In Europe, this is also done, and in totally absurd ways. For example, patents have been filed on having a dark pointer on a light background, and vice versa! (...) Europe must adopt a uniform protection with the United States. If we ask the Americans to eliminate the software patent, we will not be heard. If we ask them to agree to put things in order, we can hope for something. Bernard Lang: I don't understand the argument. You say that the United States will not go back. Then you say that we will perhaps make them go back a little. But as things stand, if we adopt a limited patent in Europe, there will in any case be a legal difference with the all-out patent in the United States. (...) You also talk about protecting the assets of companies. But there is already copyright, which protects better than is said, since many people consider that the creativity of a program is mainly due to its organization and composition. There are also the texts of the European Patent Convention, as they were signed in Munich. The patent that protects an invention can thus include a program to the extent that the innovation implies an original use of a physical phenomenon. (...) There are also a lot of SMEs that have invested to gain a foothold and that find themselves attacked for infringement, sometimes unjustified. I will cite the case of Getris Image, a small French company that was sued in the United States. It was protected in Europe, where there are no patents, but as soon as it arrived on the American market, it was attacked for infringement on four patents. Subsequently, the four patents in question were all cancelled. Getris Image was a small company that did not have the means to defend itself. It was put into bankruptcy. The patents were cancelled by a company that had deep pockets. The worst thing is that Getris was placed into bankruptcy by a patent company, that is to say a company that does not create industrial research but is content to accumulate patents. I will not hide from you my fear of seeing certain large industrial groups transform themselves into patent companies in this way. JV-C. : Do we disagree? You say that the Munich Convention allowed patents to be taken out provided that there was a physical, technical or industrial action. However, this is precisely one of the conditions that we set for patenting. (...) Furthermore, we are perfectly aware of the counterfeiting attacks that SMEs are subject to. But the report recommends setting up an organization with a fund whose objective would be to defend them. It is true that SMEs do not always have the means to face this type of trial, especially in the United States. BL: I do not follow you. Senator Lafitte contacted Lloyd to study the feasibility of a fund to protect SMEs. Lloyd simply replied that it was not viable for a very simple reason: today, there is little litigation because it is extremely expensive, and therefore dissuasive. The big ones make agreements between themselves and the small ones obey orders. As soon as people are "insured", they will be much less afraid of going to litigation, and all this will not be manageable. In short, you say: "We are going to start a fire and we are going to bring the firefighters"! (...) You also mentioned the "technical effect". By this notion, we mean that the logical part, the "intangible" part, is not patentable. But it can be part of a patent if there is a "technical effect". On this, there has been a drift of the European Patent Office [EPO, Editor's note], which said, somewhat caricaturing: "If the software makes the computer work, it acts physically since it sends the electrons to the memory on the right rather than to the memory on the left. So there is a technical effect." () The drift in this sense is so obvious that it was denounced at the last diplomatic conference of the EPO. Last November, the Member States said that the lack of control by the Office had to end. () JV-C.: We recommend an amendment to the Munich Treaty. And we specify: "pending an eventual amendment to the Munich Convention". BL: So you say: "There has been a development, it is not legal, but we are going to legalise the development." JV-C.: What you are proposing is to eliminate the 20,000 or 30,000 patents that have already been taken out? I think we can have a different opinion on this. BL: () Absolutely. But we agree on at least one point: patentability depends on the concept of "technical effect", which is not defined in your opinion. () You say: "We are in favour of software patentability, we will see what that means later." () What criteria should the authority that issues patents base itself on? Why call into question the fundamental principles of patents? JV-C.: The criteria are indicated in the report. There must be invention and novelty. The third criterion is this "technical effect" that we talked about, accompanied by a clear publication. Last criterion: we ask that the patent be drafted in such a way that an industrial implementation is possible. We maintain these criteria. () We are aware that they are not defined in a uniform manner in the different countries. We therefore propose that work be carried out to standardise them. () Ideally, we could have waited for clear definitions of these criteria to give our opinion, but that would have taken us to 2002 or 2003. In what way is copyright insufficient? JV-C. : Copyright only protects the form, not the functionalities. BL: What you want to patent are precisely functionalities, that is to say abstract concepts of functions to be carried out, and not the way in which these functionalities are carried out. As soon as we start wanting to patent intangible goods, we patent the problem rather than its solution. () I will quote your text: "The primary function of patents is to protect inventors." That is false. The primary function of the patent is to promote innovation, its dissemination, its marketing. The primary goal of the patent is the general interest. JV-C.: I would like to come back to the text which says: "The traditional function of patents is to protect inventors only to the extent that the publicity inherent in the patent allows innovation and the dissemination of knowledge." BL: No, that is not what is written. At least not in the version you gave to the Prime Minister, which says: "The primary function of patents is to protect inventors; in return, the publicity inherent in the patent allows for innovation and the dissemination of knowledge." (...) This difference is enormous. Because it determines the goal of a policy that will structure the economy of the 21st century. JV-C.: You are confusing the motivations for the existence of patents and the following factual element: once the patent is taken out, it protects the inventor. The initial formula was semantically erroneous. When patents were established, it was indeed to prevent everything from remaining secret. In exchange, inventors protected themselves. In the current text, there are the words "in return." That seems quite significant to me. () BL: No! There is, on the one hand, a role for the patent, which is a goal. And on the other hand, the protection of inventors, which is a means. You have interchanged the goal and the means. () In terms of software, do patents promote innovation? In the world of software, we have an economy that functions solely with intellectual investments. In such a context, a small group of people can be the equivalent of a multinational. () Analyses of these particularities made by various organizations (European Union, Fraunhofer Institute, etc.) are all unanimous in saying that patents in software work against innovation. () JV-C.: We are aware of certain particularities of software. The main point is indeed to know if software patents will promote innovation. I know that there are studies that have concluded in the negative. But they are not as categorical as you say. We are in a context where patents are taken out not by those who make the inventions but by companies whose objective is to make money by attacking for counterfeiting. In such a context, patents do not promote invention. But in our idea, which is to make a "correct" patent, there is no reason why things should be different for software and why the patent should not promote inventions. It was said in the opinion that the patentability of software would not hinder the distribution of free software. How do you react to that? BL: This sentence was highlighted in the press releases announcing the submission of the text to the Prime Minister, and I admit that I would like some explanations. JV-C.: I do not see how the fact that some people take out patents is an obstacle to others using free software. BL: It is very simple: free software people will be sued for infringement since practically all the people who make software find themselves attacked, given the multiplicity of patents, the complexity of the systems, the difficulty of doing prior art searches. As one AT&T representative said, "We want to build fences around technologies that we think are important for the future." Software patents are not for innovation; they are for preventing others from innovating. JV-C.: You would like free software to be unassailable, and therefore unassailable. So all patents filed should be canceled to allow you to work freely. BL: You have acknowledged that they are illegal! JV-C.: That is not for me to decide, but for a judge. () Any inventor remains free to keep his invention secret, to patent it, or to put it in the public domain. () When someone has taken out a strong patent, that will block free software that wants to use it. That is quite normal.

## ###ARTICLE\_START### ID:438

In favor of extending the patent to software, the opinion given this summer by the Academy of Technologies is at the center of a lively controversy. Should we or should we not extend the notion of patent to software? Put in these terms, the debate is one of those that are off-putting. Too complex at first glance to arouse interest, hiding too well under its technical exterior the more fundamental questions that it raises. Because the fact of deciding that a software - or a software command - can be patented goes far beyond the framework of the law (see the file of "Le Monde interactif" of November 15, 2000). Should we put the quasi-absence of public debate down to the complexity of the subject? Or, as the supporters of free software suggest, down to the silence of the manufacturers concerned? The "free software people", grouped within the Eurolinux alliance, were in any case the first, in the spring of 1999, to have drawn the attention of elected officials and the media to the consequences of a possible software patent. According to them, the danger lies in the prospect of a revision of the Munich Convention - the founding text of the European Patent Office (EPO). An amendment which, according to the members of Eurolinux, would threaten the activities of free software developers without being based on substantiated arguments. "Recent economic studies show that the extension of patents to software tends to slow down innovation in this industry. The American experience even suggests an enormous legal risk for SMEs, due to software patents, which can be disastrous for their activity", they explained, in the preamble to an information meeting at the European Parliament in Brussels, held in October 2000. More serious: according to them, there seems to be no limit to patentability once software becomes patentable. "Ideas such as the distribution of cooking recipes in a supermarket become patentable once they involve a computer", they say. Because the patentability of software does not limit its effects to the economy of the century to come. It touches on a more fundamental issue, that of the extension of the notion of property. An "intangible creation" par excellence, software is in fact placed, in European law, at the same level as a mathematical formula: it is not, in itself, patentable. The latest contribution to this debate - an opinion given to the Prime Minister on July 18 by the very young Academy of Technologies - could shatter these considerations. Considering that copyright is insufficient to protect software innovations, the opinion recommends a regulated extension of the notion of patent to programs. A report that has aroused the anger of the Eurolinux associations all the more because they were not consulted. According to them, the Academy of Technologies, considering them to be "ideologues", did not see fit to question them. However, they are putting forward a petition against the extension of patentability that has collected 80,000 signatures. And, according to the Minister of Research, one of the missions of the academy, created in December 2000, is to "conduct expert, prospective and animation actions for the benefit of a wide audience, () to enlighten society so that it makes the best use of current and future technologies." The face-to-face organized by "Le Monde interactif" between Jacques Vincent-Carrefour (coordinator of the working group on the patentability of software at the Academy of Technologies) and Bernard Lang (researcher at Inria and member of Eurolinux) gives the measure of what separates the "free people" from the Academy of Technologies.

## ###ARTICLE\_START### ID:439

The collapse of the stock prices of "companies.com" and telephone operators has exposed the weakness of their economic models, but also allows us to draw attention to other areas of "high technology". Start-ups, innovation, incubators, venture capital are not the same as the Internet. These realities are also found around life technologies, nanotechnologies, new materials, optics, software, etc. In research laboratories, university incubators, large industrial groups, these technologies mobilize battalions of researchers and engineers. Of course, the Internet crisis has not been limited, contrary to what observers had hoped, to e-commerce companies alone. Their subcontractors (website and software solution publishers, access and hardware solution providers, both for systems and networks) are also in difficulty, as is the telephone sector, victim of the saturation of the mobile market, the marketing failure of the first generation of mobile Internet, Wap, and negative expectations of investors for the third generation (UMTS). The other vector of the spread of the crisis to all high technologies is even more worrying: "In many cases, investors, disgusted, run away as soon as they hear the word "Start-up"", observes Jean-Michel Dalle, director of Science pratique, the incubator of the Ecole normale supérieure de Cachan. It is the financing model for technological innovation that would thus be threatened, at the risk of leading to "an innovation deficit in the years to come", because large groups are hardly taking over: still poorly configured for innovation, "they prefer to let nine start-ups fail in order to buy the tenth", observes Jean-Michel Dalle. However, the picture is not as bleak as that. The globalization of markets "shortens the time between innovation and commercialization," writes Jean Jacquin, who presided over the development of the work published by the Ministry of Industry "Key Technologies 2005." "This means that the race for first place is taking place in a highly competitive environment and at a sustained pace," accelerating and multiplying the quest for "technological leaps" that will allow new markets to be conquered. Furthermore, continues Jean Guérin, the disappearance of the Soviet bloc "leads to a much easier and faster availability of technologies that were, until recently, considered strategic and that each major power was therefore required to possess in its own right." In other words, the research potential devoted to armaments is more easily and globally disseminating its applications to civilian markets. Finally, measures in favor of innovation are encouraging researchers who were hesitant to take the plunge to launch themselves into the arena of valorization and industrial partnership. The twelve national and regional public seed funds, or the commitment of the Caisse des Dépôts or the Caisses d'Epargne in venture capital funds, are fortunately taking over from private investors, who are still digesting the consequences of the bursting of the Internet bubble. What are the fields today that are likely to take over from new information and communication technologies (NICT) to attract young researchers and engineers? Biotechnologies are experiencing a comeback, on the one hand because these fields are very far removed from NICT, and on the other hand because there was already a tradition of valorization in academic circles as well as specialized investors who, for a time attracted by the El Dorado of the Internet, have returned to their first loves. Materials, for their part, are experiencing regular but discreet innovations, which are gradually revolutionizing the industry: their problem is to attract venture capitalists, who, generally specialized either in NICT or in biotechnologies, are largely ignorant of this field. Investment therefore remains more the responsibility of large groups. IT should find a new lease of life thanks to "embedded software", i.e. software that is added to a growing number of professional and consumer devices. Some sectors, such as medical instrumentation or the automobile industry, are already experiencing such mini-technological revolutions. These specific applications will open up niche markets and subcontracting of traditional industries to a new generation of start-ups, believes Jean-Michel Dalle, for whom free software, whose "open" codes are malleable to any application, will be the fuel for this transformation of professional IT.

## ###ARTICLE\_START### ID:440

Last July, in Genoa, a group of experts submitted to the G8 its action plan to put technologies at the service of the countries of the South July 2000. Then meeting in Okinawa, the G8 not only devoted a charter to the "information society", but also established a Group of Experts on Access to New Information Technologies (Geant in French, Dot force in English). Its composition is original: around forty people representing the member states of the G8 and international organizations such as the World Bank or UNESCO, but also the private sector, the associative world and certain developing countries. Its mission is major: to prepare, for the Genoa summit in July 2001, proposals intended to reduce the "digital divide" between the North and the South. This group of experts worked hard and, in April 2001, submitted to the G8 sherpas an "action plan" detailing in nine points the strategies - national and international, public and private - to be followed to combat the said divide and to use information and communication technologies to help develop poor countries. July 2001. The work of the Geant was the subject of a terse communiqué in which the eight major players, locked away in Genoa, were content to "ratify the Dot Force report". A bitter failure? No financial means "The G8 has postponed any concrete commitment by the States", regrets Valérie Peugeot, of Vecam (European and Citizen Monitoring on the Information and Multimedia Highways), who represented the French associative sector within the Geant. A disappointment not shared by the executive secretary of the Dot force, Bruno Lanvin, manager at the World Bank: "The G8 leaders went further than what was expected of them. They chose to endorse the entire report, and to lend their support to the action plan that constitutes the active part." The fact remains that no financial decision has been taken to provide the means to implement the famous plan. "The G8, a political entity without a secretariat, structure or budget, has neither the vocation nor the power to allocate financial resources to this or that project, defends Bruno Lanvin. On the other hand, public aid agencies, international organizations, private companies and NGOs that are part of the Dot force can do so." The G8 meeting in Montreal on October 9 and 10, assures the secretary of the Dot force, should thus identify the "champions" who will be best able to provide each action point with the ingredients - competence, experience and financial resources - necessary for their implementation. Praiseworthy intentions that do not prevent Valérie Peugeot from doubting the follow-up that will be given to the work of the Geant. "The UN has just created its own task force on the issues of the digital divide. Will it be able to take hold of what we have done or will it give birth to yet another report?" An abandonment that would be all the more regrettable since, in the opinion of the Vecam representative herself, the Geant's action plan includes "progress on issues considered strategic by associations working on development and information technology issues". Thus, it formulates proposals on cultural diversity on the Web, the use of free software, associative access points to the Internet, the inseparability of connectivity and training or the systematic association of countries of the South in any negotiation on information technology issues, with the material means that this implies. But if Valérie Peugeot describes the report as "magnificent" for all these conquests, she also considers it "terrible" because of the absence of such fundamental notions as public service or taxation/pricing. "How can we guarantee that the networks reach the most isolated and deprived when the cable operators are not subject to any public service specifications?" asks the activist. "The terms 'universal service' - a watered-down, Maastricht version of public service - ended up appearing in the Dot Force report, without a single line being said about the means of implementing what appears here as an objective with an indefinite horizon. As for taxation/pricing [of domain names or the Neteconomy], it obviously does not deserve the honour of a quote. A word forbidden among all, in the land of liberalism, it nevertheless seems to be the keystone of a policy of redistributive solidarity (two other words unknown in the report) in terms of ICT." But could it have been otherwise in a body that emanates from the main guardians of the world economic order? However, and we must at least recognise this merit in the initiative of the G8, the Giant, through its openness to the non-profit sector, although limited to 8 members out of a total of 42, seems to demonstrate a desire to involve civil society in the management of world affairs. Unless, scalded by the rise of the liberal anti-globalization movement from Seattle to Porto Alegre, the "eight" wanted to nip the protest in the bud by inviting the "non-profit" sector (a term chosen by the G8 that goes far beyond the associative framework) to their table? "The choice of these 'non-profit' actors says a lot about their belonging to an independent third sector," Valérie Peugeot says in response. Alongside Vecam, the only association in the Dot force, there was notably a large American foundation expert in ICT close to the former Democratic government, or a Canadian public organization for North-South development. Despite all its imperfections, the Giant still seems to be opening the way to a new participatory process. "Bringing together in an informal structure bureaucrats, representatives of developing and industrialized countries, economic actors and members of civil society is an unusual formula in the way the G8 operates, which debureaucratizes the debates, says a member of the Dot Force experienced in the practice of international institutions. We could imagine extending this type of structure to combat problems such as AIDS, as long as, like the digital divide, they are not too political and remain very targeted." However, as Valérie Peugeot notes in the light of her experience within the Dot Force, "it is not enough to be invited to a discussion table to enter into a process of participatory democracy. The democratic conditions for this dialogue still need to be invented." Drawing conclusions from the social discontent in Genoa, the G8 leaders expressed their desire last July to "promote innovative solutions based on a broad partnership with civil society." The fight against the digital divide will perhaps be the first testing ground for a new model of global governance in the making.

## ###ARTICLE\_START### ID:441

Networld-Interop September 18-20 Some 600 exhibitors will be at the Network-Interop trade show, the highlight of the new school year in terms of networks and telecoms. The program includes conferences on security in companies, video applications, mobile commerce and marketplaces. Paris, Porte de Versailles www.interop.fr Second international WIPO conference September 19-21 Intellectual property and electronic commerce are at the heart of the World Intellectual Property Organization's conference, which will be held over three days in Geneva and broadcast live on the Web. Workshops include "trade names on the Internet", "protection of personal data" and "cultural heritage". Geneva ecommerce.wipo.int/index-fr.html KM Forum September 25-26 This trade show takes stock of and looks at the prospects for Knowledge Management, i.e. knowledge management. The conference aims to support the transformation of companies that will create, thanks to these techniques, new cultural and operational foundations in companies. Around 1,200 decision-makers will be brought together around themes such as company portals, documentary intranets, or Internet databases. Paris, Palais des congrès. http://www.groupemm.com/kmforum Apple Expo 2001 From September 26 to 30 The largest Macintosh gathering in Europe is held, as it is every year, in Paris. The program includes the presentation of new products, with the new MacOS X operating system in the spotlight. Many conferences on Apple's favorite themes, such as digital creation and education, will be given during these five days. Paris, Porte de Versailles www.apple-expo.com Rencontres Arts électroniques de Rennes October 24 and 25, 2001 Under the theme of digital art, the event will bring together enthusiasts, artists and spectators for two days. It aims to be an overview of the dissemination and production of arts and new technologies. The Rennes association Station Arts électroniques is behind this event, which was first held in 1995. Rennes, Le Tambour auditorium www.uhb.fr/culture/station Comdex Fall From November 12 to 16 The largest American trade show on new technologies. Bill Gates (Microsoft), John Chambers (Cisco), Kunitake Ando (Sony) will be present, as well as 2,300 other companies. Among the week's events, conferences on m-commerce, workshops on the strategies and tools best suited to the development of a company in the sector. Las Vegas www.key3media.com/comdex Linux Business Expo From November 12 to 16 In parallel with Comdex, the trade show dedicated to Linux and free software will present the latest trends in the sector, its applications and the means of integrating it into the company. Conferences and demonstrations will punctuate this five-day event. Las Vegas, Sands Expo and Convention Center www.key3media.com/linuxbizexpo XML Integration e-business Forum November 20 and 21 The fourth edition of this forum should provide an opportunity to deepen knowledge of XML-related applications, compare different solutions and discover innovations in the field. The show presents, among other things, 21 case studies from several sectors of activity, and a special cycle of applications intended to provide a solid foundation for implementing an XML project. Paris, Palais des congrès. www.technoforum.fr Young digital creation meetings From November 21 to 24 For four days, and for the third consecutive time, Valenciennes opens its doors to young European digital creation. Ten countries will participate in conferences, the creation of animations and experimental laboratories. Valenciennes www.youngcreation.net International Idate Days November 22 and 23 On the theme of broadband, these days are designed to take stock of existing technologies and the players involved. The conferences will address topics such as the profitability of investments in broadband, the regulatory environment or the actual state of development of these technologies. Montpellier. www.idate.fr Internet World Expo November 27 to 29 The strategic e-business trade show is aimed at decision-makers and operational or functional managers in companies. 70 conferences will address various topics, such as transaction security, the use of the Web in a marketing plan or customer relationship management. Paris la Défense (CNIT) www.internetworldfrance.com

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Linus Torvalds, the creator Linus, a student at the University of Helsinki, gave birth to Linux at the age of 21. In 1997, he emigrated to Silicon Valley and joined Transmeta, a microprocessor manufacturer. His passion for Guinness beer and the time spent programming caused him to become slightly overweight, like the penguins that symbolize Linux. Richard Stallman, the inspiration behind the official "Guru" of free software, Richard Stallman left the computer science laboratory at the Massachusetts Institute of Technology (MIT) in 1984 to found the FreeSoftwareFoundation and launch the GNU project, the basis of Linux. A tireless proselytizer, Stallman, 48, likes to take his beard and long hair around the world, where he occasionally blesses computers. Eric Raymond, the theorist In 1997, American computer scientist Eric Raymond theorized the success of Linux: it is proof of the superiority of the "bazaar" model (open and decentralized), over that of the "cathedral" of classic software (closed and hierarchical). An anarcho-capitalist and fan of firearms, Raymond has become an obligatory and sometimes somewhat cumbersome reference for free software activists. Jean-Yves Le Déaut, the politician Last year, the PS deputy for Meurthe-et-Moselle Jean-Yves Le Déaut filed a bill aimed at promoting the use of free software and Linux within the administration to "strengthen consumer freedoms and security." With three other PS deputies, Patrick Bloche, Christian Paul and Pierre Cohen, he hopes that "this fundamental debate" will resume when the future law on the information society is passed before Parliament in 2002. Bernard Lang, the agitator Director of research at Inria (National Institute for Research in Computer Science and Automation), he is one of the most ardent promoters of Linux in France. Always quick to launch campaigns to accelerate its use and denounce the dangers of "all-Microsoft", he leads, alongside Stéfane Fermigier, the Aful (French-speaking Association of Linux and Free Software Users). Jacques Le Marois, the entrepreneur At 31, after working at Danone and then Andersen Consulting, this graduate of the École Normale Supérieure created Mandrake Soft in 1998. The French company is one of the very first Linux distributors in the world. Initially, Jacques Le Marois and his cronies were content to take the version from Red Hat, the American company of the eccentric Bob Young, by "changing the bodywork". Dan Frye, the evangelist Director of IBM's Linux Technology Center, Dan Frye embodies the interest of major computer manufacturers in Linux. He oversees its adoption by IBM and the investment it devotes to it: 1 billion dollars (1.10 billion euros). Member of a team responsible for detecting "emerging technologies and economic opportunities", he succeeded in convincing the CEO of the interest of the software. Miguel de Icaza, the popularizer This 29-year-old Mexican has an obsession: to allow the average computer user to use Linux, originally more adapted to the needs of computer scientists. He is the instigator of Gnome, a complete graphical interface, with windows and icons, which makes using Linux (almost) as simple as Windows. Gnome is in competition with KDE which aims for the same objective.

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On August 25, 1991, a Finnish computer science student posted a message on the Internet. He announced the creation of an operating system for microcomputers. "Just a hobby, it won't be important or professional," he warned. Ten years later, Linus Torvalds' predictions were proven wrong. Refined by thousands of volunteer programmers around the world, Linux was spreading to businesses. Microsoft was worried. And, as if to celebrate its tenth anniversary, the software with libertarian origins was making a place for itself in the bowels of the New York Stock Exchange: on August 28, IBM announced its adoption for monitoring purchase and sale orders. An activity that can "absolutely not tolerate failure" and will benefit from "the efficiency of Linux," said the computer giant, which has invested 1 billion dollars (1.1 billion euros) in Linux for the current year. A collective tool It's a strange story that this software combines technical success and political ideals, which in 2000 carved out 27% of the market for corporate servers (computers storing data or websites), according to estimates by the IDC firm, behind Microsoft (41%). Originally, it was not just about providing a cheap and efficient program. The ambition was to forge a collective tool that everyone could freely enjoy, that everyone could modify at will. "In 1984, it was impossible to use a computer and have these freedoms," remembers the American Richard Stallman, one of the pioneers of Linux. "You needed an operating system, and all operating systems were proprietary software." In other words: not usable without paying a license for each workstation and impossible to modify. Stallman, with the help of developers, began by developing what would become the framework of Linux, under the name GNU ("Gnu's not Unix", a computer scientist's joke, the acronym never revealing its meaning). In 1991, Linus Torvalds announced the software's kernel, in other words its "engine". Linux took its name from its creator and gave itself an animal emblem: the penguin. Stallman, for his part, insists today that the software be called GNU/Linux, in reference to its origins. Linux is the archetype of what is commonly called "free software". But free, contrary to popular belief, does not mean royalty-free. This category is governed by a license with precise terms, the GPL (General Public License). First of all, everyone is free to dissect the software by accessing the source code, the lines of program that constitute its manufacturing secrets. Then, everyone is free to modify it, improve it or adapt it to their needs. One condition: all changes must be made public and subject to the same terms of use and distribution. "The work is mainly technical, it is writing software," says Richard Stallman. "But the goal, with the development of such a system, is political, social and ethical." Linux is indeed based on a cooperative production model involving its users. Every day, thousands of volunteer developers propose improvements. Their motivations vary: passion, but also pride, recognition from their peers. And, for many, participation in a political movement, in an action in favor of freedom. By introducing politics into the economic, Linux is not only of interest to computer engineers, as demonstrated by the various discussions on "free" during the Attac movement's summer university last week. "Its use is a political act, associated with the defense of fair trade," explains Laurent Jesover, the webmaster of Attac. "We try to ensure that people dominate the tools rather than suffer their capture by multinationals." IndyMedia, the network of information sites of opponents of neoliberal globalization, also makes extensive use of free software. For many states, Linux has even become a way to avoid too great a dependence on Bill Gates' firm. In France, the software equips many administrative services: 400 servers at the Ministry of Culture, 650 at the General Directorate of Taxes. Their use is supported by Matignon. Among the arguments cited for its adoption: reliability, value for money, but also circumventing Microsoft. "Dependence can quickly become economic and ideological domination," maintains PS MP Jean-Yves Le Déaut, who initiated a bill last year to promote free software in the administration. Stock market madness To graft themselves onto this curious alternative model, companies have had to adapt. Because, if you can find free versions of Linux, anyone can sell it. Hundreds of companies have been created to provide this software to companies, but also complementary services, technical assistance or training. They thus make the aims of the beginnings, mixing freedom and mutual aid, coexist with the financial imperatives of the capitalist world. Two years ago, we even witnessed a stock market madness around the main American companies in the sector, Red Hat, VA Linux, etc. "Our job is to detect our users," explains Jacques Le Marois, the boss of Mandrake Soft, a French company distributing a version of Linux. "Then, we inform them about our services and we try to transform them into customers. We offer them the freedom to pay or not. They give us back a hundredfold, by contributing to our developments. Our software has been translated into forty languages by volunteers." Mandrake Soft successfully launched its stock market flotation at the end of July, in a depressed context, by counting on its own users, who were asked in this case to be activists, customers and shareholders. This is how what some call a gift economy based on barter is set up: product for skills. Those who download Linux use the product for free but they also seek to improve it. For their part, most companies do not just benefit from the work of developers; they contribute to it. It is common, in fact, for some of their programmers to devote themselves exclusively to Linux, instead of projects specific to the company. "Two hundred people worldwide work with the Linux development community," assures Marc Joly, Linux director at IBM France. "It is essential for our credibility, so as not to appear as a parasite on the Linux world," explains Jacques Le Marois. The arrival of the software in the commercial world is recent. "During the first seven or eight years, Linux was hardly marketed," explains Andy Butler, of the Gartner research institute, which specializes in IT. "It was used in research centers, universities, administrations. It entered several companies through the back door, introduced by enthusiasts. Today, IT directors decide to adopt Linux, only to discover that the software is already there." Microsoft worried After having long disdained the program, Microsoft is now worried about it. The firm has created a team responsible for monitoring its developments. Steve Ballmer, the new boss of the company, went so far as to call the program a "cancer", an allusion to its development and propagation model. For Andy Butler (Gartner), Linux has had a salutary effect on the software giant: "It has forced Microsoft to be more humble and more responsible. It is a good development for the industry. It is the first product that really competes with it." Linux is now developing on two axes: servers and the market for dedicated devices, mobile phones, Internet terminals, etc. One big piece remains: the microcomputers of basic users used to consult or create information, and not to store it. "For the moment, the big obstacle is the lack of applications for Linux, especially games," says Marc Joly (IBM France). In ten years, the model has proven itself in the IT sector. Some are now wondering about its extension to other areas to combat abuses of intellectual property: it is the opening of the Linux "model" to GMOs, medicines, etc. In April, the lawsuit brought by pharmaceutical companies against South Africa, accused of circumventing patents on anti-AIDS drugs, was an opportunity for Act Up to get closer to free software activists, who are very aware of the dangers of extending intellectual property too far. Linus Torvalds' "hobby" has become a political model.

## ###ARTICLE\_START### ID:444

A new threat is looming for the major record companies. Sony, Vivendi Universal, AOL-Time Warner or Bertelsmann had not foreseen that one day a software like Audiogalaxy could be a worthy successor to Napster. The application created by Shawn Fanning and since bought by Bertelsmann had caused a wave of panic among music catalog owners. Millions of Internet users had then united around a completely free global music library. Threatened by a succession of lawsuits, Napster complied with the legislation by completely stopping its service. New software has appeared, such as Gnutella, Aimster or iMesh, but today, only one holds the rope. Audiogalaxy comforts Internet users orphaned by the closure of Napster and offers, in addition, a lot of improvements. First, Audiogalaxy combines Peer to Peer technology with that of the Web. This considerably facilitates the search for music files. Then, Audio Galaxy did everything to not disorient the Internet user. The service is presented in the form of a search engine similar to Yahoo! that everyone knows. From then on, the average Internet user has no difficulty in using the software. The latest innovation, even more revolutionary, Audiogalaxy has planned to receive advertising banners and has designed a viable economic model based on advertising. This was not the case with Napster. Despite its young age, Audiogalaxy has already interested advertisers with a taste for risk such as Isostar or 123Crédits.com. Others should flock to it given the considerable audience of the service. Today, more than a million Internet users are permanently connected to the Audio Galaxy network and can receive and offer several tens of millions of musical works. Ease of use and power have therefore allowed Audio Galaxy to achieve a success comparable to that of Napster in its glory days, just a year ago. It will certainly not be as easy for the major record labels to silence the new troublemaker as they did with Napster. Audiogalaxy's strength will be based on advertising revenues, the amount of which could be used to pay any damages that artists and major record labels may claim for copyright infringement. For the moment, the communications giants Bertelsmann-Napster, Vivendi Universal and EMI have not yet reacted. These huge machines are only just becoming aware of this new threat. Of this one as well as of those represented by the new compression format "Ogg Vorbis" which replaces the MP3 model. All are busy perfecting their own online music distribution solution by subscription. Bertelsmann is still preparing the new paid version of Napster for the end of the year. Vivendi Universal and Sony are in the starting blocks to launch the PressPlay download platform. It is now certain that the successful launch of the network of branded offer networks, Pressplay or MusicNet, is no longer a given. How will the majors be able to convince Internet users to pay for a service that has just become free again? Napster was a pioneer and gave rise to bad habits. It convinced the vast majority of Internet users that the music exchange service, and perhaps films, should be free. The lawsuits brought against Napster for piracy have not changed mentalities. If that had been the case, Bertelsmann would not have hesitated to launch a paid Napster before the summer! But the German group has not yet dared to take the plunge. Moreover, a survey conducted by Gartner Group, on some 4,000 Internet users, is hardly encouraging. This study shows that only 6% of Internet users say they have bought and downloaded a music file on the Net. The majors and their shareholders are still convinced that they will be able to change the habits of millions of Internet users. But they will have to, once again, come up against the formidable inventiveness of this network.

## ###ARTICLE\_START### ID:445

Toronto - Canadian software maker Corel Corp. sold most of its Linux division yesterday, signing a deal that gives privately held Xandros access to its software for the Linux operating system. Corel will receive an undisclosed sum of cash and a 5% stake in Xandros, as well as a 2% stake in the U.S. startup's parent company, Linux Global Partners. Xandros said it has a $10 million equity commitment from Linux Global Partners, a New York holding company with stakes in several Linux companies. A source familiar with the negotiations told Reuters on Tuesday that Xandros would pay $2 million for the Linux business, which accounted for about 14 percent of Corel's total revenue in January 2001. Created a decade ago by Finnish computer science student Linus Torvalds, Linux has become popular among Web site managers and is seen in some niches as a direct competitor to Microsoft's ubiquitous Windows. Linux's popularity stems from its open-source nature, which makes it easier to upgrade, unlike other software such as Microsoft's. Selling the Linux business would allow Corel to focus on its graphics software, a business recently bolstered by the acquisition of Softquad Software and Micrografx, the source said. The sale marks a shift in Corel's strategy to build a portion of its business around Linux. New Chairman Derek Burney said in January that the Linux business could slow the company's growth. "I believe this decision is in the best interest of consumers and shareholders because it allows Xandros to continue to develop the technology and, on the other hand, allows Corel to focus on a new and aggressive growth strategy," said Rene Schmidt, Corel's chief technology officer, in a statement. Xandros President Michael Bego said in a statement that he sees his company as a viable alternative to the Windows operating system. The first version of Xandros' Linux operating system will be released in 2002.

## ###ARTICLE\_START### ID:446

Toronto - Canadian software maker Corel Corp. may sell most of its Linux business today to a privately held startup, a move that would signal its withdrawal from software for the Linux operating system. A technology startup called Xandros will pay $2 million for the Linux business, which accounted for about 14 percent of Corel's total revenue as of January 2001, a source familiar with the negotiations told Reuters yesterday. Created 10 years ago by Finnish computer science student Linus Torvalds, Linux has gained popularity among Web site managers and is seen as a rival to Microsoft's Windows, which currently dominates the personal computer industry. Rumors about a potential buyer for Corel's Linux business have been swirling in the media since January, when new Chief Executive Derek Burney indicated the business could weigh on the company's growth. Some media reports have already put the division's value at $5 million. "The desktop division has the potential to impact the growth of the company and should be launched separately to expand outside the company," Burney said on Jan. 23. "There is nothing new to report at this time," a Corel spokeswoman said yesterday, adding that the company is still looking to sell its Linux distribution business, which does not include Linux-based software. Corel shares were down one cent to $3.57 yesterday on the NASDAQ. In Toronto, they were unchanged at $5.51. The stock has traded between $1.40 and $4 on the NASDAQ since June 2000, after peaking at $39.25 in December 1999. Selling the Linux division would allow Corel to focus on its graphics software business, which it recently beefed up with the acquisition of Softquad Software Ltd. and Micrografx. Corel would likely continue to sell Linux versions of its WordPerfect and CorelDraw software, the source said. "Corel is selling it (the Linux division) because of the change in leadership. The previous CEO thought it was the future of the company, but Mr. Burney felt the company was spending too much money on it," said the source, who asked not to be named. Corel would retain about 5 percent of the Linux division, with Xandros buying the rest with a cash payment. Xandros is controlled by Linux Global Partners, a small New York holding company with stakes in several Linux companies. Corel's Linux division would remain based in Canada and core engineers would remain as employees, the source said. Linux has gained popularity among programmers because its open-source codebase allows for improvements, unlike other software such as Microsoft's.

## ###ARTICLE\_START### ID:447

ARLES from our special correspondent - By devoting a round table to "the solidarity economy: illusion or way forward?" on Sunday, the participants in the Attac summer university, in a way, indulged in freewheeling, since this active approach of "reappropriation, by citizens, of part of the activities of production, distribution and exchange" is new ground for the scientific committee of the movement. During the presentations, the topics discussed included cooperatives and mutual societies, which were supposed to "change the market" but which have too often been "changed by the market", the promising breakthrough of "free software", and the delicate microcredit operations implemented. The difficulties experienced by the Inter-network of the solidarity economy (IRES) in escaping the "administrative straitjacket" when it comes to supporting the creation of activities by the unemployed were mentioned, as was the near absence of unions in solidarity companies. In the packed room, the "questioning" of the activists gave an idea of the diversity of their concerns. The interventions bore witness to the daily torments experienced by the "base" to remain "vigilant" and above all "coherent" in the face of a liberal universe without qualms in which, in short, everyone has the feeling of being manipulated and "big-brotherized". "With the appropriation of the media by the big monopolies, how can we protect our children from the evils of single-track thinking?", worried one. "When I push my cart in a hypermarket, what means do I have to influence the harmful practices of large-scale distribution?", asked another. Michelle Dessenne, technical advisor to the office of the Secretary of State for the Solidarity Economy, Guy Hascoët, who came to testify to the "government's support for a popular education movement", undoubtedly brought a little balm to the hearts of the audience. Despite a budget of 80 million francs for 2001, which she considered "derisory", Mrs. Dessenne listed the first projects of the State Secretariat, created in April 2000. She mentioned the law creating a new generation of cooperatives, the cooperative societies of collective interest (SCIC) - companies with both commercial and social vocations - and the reform of the public procurement code, which should allow local elected officials to award a quarter of the lots of calls for tender according to "social and environmental best" criteria. The technical advisor welcomed the fact that "now, in inter-ministerial meetings, little hands are raised to make it known that there is something else" between private companies subject to the law of the market and the non-profit associative environment. Continuing her momentum, Ms Dessenne went so far as to say that the State Secretariat for the Solidarity Economy constituted, "within the government, a small grain of sand which could meet the small grain of sand of Attac".

## ###ARTICLE\_START### ID:448

Online music should not belong only to a few multinationals. Christopher Montgomery, the leader of the Xiphophorus Foundation, is convinced of this. With a few other computer scientists who are passionate about music, this 29-year-old is working on a new compression format, called Ogg Vorbis, capable of countering the interests of Microsoft, RealNetwork, Vivendi Universal, Bertelsmann or AOL-Time Warner. To succeed in this adventure, Christopher Montgomery has put as many assets on his side as possible. Ogg Vorbis is thus entirely free. It does not require any purchase of a license. An approach that claims to be part of the "open source" movement, which allows all Internet users who wish to participate in the development of Ogg Vorbis. The adoption of technological choices intended to integrate the new format is done by successive contributions. Thus, Ogg Vorbis does not belong to any company, but to all Internet users. The result is astonishing. Ogg Vorbis, which has not yet reached the final stage of its development, allows the same compression rates as the famous MP3, with high listening quality. Moreover, it could very well replace MP3 for Internet users in the near future. But Christopher Montgomery is targeting another opponent than MP3. It is Microsoft and its Windows Media audio format that is being singled out by the Xiphophorus Foundation. And to a lesser extent, the Real Network company. Microsoft wants to impose a single standard for music files on the Internet, which it obviously owns. In the same way that the "Redmond ogre" has imposed its products on 90% of the world's computers. By opposing Microsoft and Real Network, but also all the future secure and paid formats that will arrive on the Net, Ogg Vorbis is not making things easy for all the major communications groups that own music catalogs. The viability of music download offers, which should be launched in the coming months by Bertelsmann, Vivendi Universal and AOL-Time Warner, is simply being called into question. These majors need a secure, inviolable system. The Internet user pays to have a song, but the owners want to control its use. Ogg Vorbis cannot be controlled. Nor sold, moreover, since it is not secure, but is as easy to copy as MP3. However, MP3, according to Christopher Montgomery, is on "a downward slope, the technology is no longer sufficiently developed by its designers", as reported by the site News.com. Its successor seems to be all found, the final version of Ogg Vorbis is almost ready. The war against the piracy of musical works led by the majors will certainly get the better of MP3. Originally designed by Thomson Multimedia and a German institute, the compression format that revolutionized the Web is about to be supplanted. The groundwork done by Universal, Sony, and Warner on computer piracy is paying off. New protection systems designed to make CDs tamper-proof are being discreetly put in place. Similarly, PressPlay, from the Vivendi Universal and Sony Music duo, and MusicNet, from the Warner Music, EMI, BMG, and RealNetwork quartet, are in the starting blocks to offer their online music download services, which are paid for and highly secure. Faced with this flood of sophisticated technologies, Internet users who still want to freely exchange their music collections on the Internet will have no choice but to quickly adopt Ogg Vorbis. Just like Linus Torvald, the founder of the Linux system, Christopher Montgomery wants, as the Cnet site reports, that "free software serves a primordial need to preserve the practice of computing free of franchises. Otherwise, society degenerates into something resembling Microsoft."

## ###ARTICLE\_START### ID:449

The music industry is not giving up against online music pirates. Quite the contrary, more than 50 publishers and authors have just filed a complaint with the American courts against the company Mp3.com. The start-up, based in San Diego, is accused of not respecting copyright law. The plaintiffs are mainly rights holders and American artists, such as Vince Gill's Publishing or Paul Overtstreet, according to the Wall Street Journal. This new case is not Vivendi Universal's. Since last May, the media giant has begun the process of buying Mp3.com. The transaction was negotiated on a basis of 372 million dollars. An operation accepted by Jean-Marie Messier, the boss of Vivendi Universal, on the condition that Mp3.com settle its legal troubles as quickly as possible. This complaint filed with the New York court of justice could therefore slow down the conclusion of the sale. Mp3.com will suffer the consequences. Indeed, the start-up chaired by Michael Robertson has reached an agreement with the major record labels for a sum of 160 million dollars (1.15 billion francs). Enough to resolve once and for all the disputes that exist between Mp3.com and the giants of the music sector, such as Sony Music, BMG, Warner Music and Universal. This settlement hastened the good understanding with the group chaired by Jean-Marie Messier, Mp3.com needing liquidity to honor it. The motivations that pushed the French group to buy Mp3.com are multiple. But the main one is to get its hands on a solid competitor to Napster, the free music exchange system recently acquired by Bertelsmann. The German media giant should release a new version of Napster in September. Totally secure, paid and therefore finally supported by the majors, the new Napster wants to preempt the market share of online music as quickly as possible in a completely legal manner. What Mp3.com and its generous ally, Vivendi Universal, seem incapable of doing in the same time frame. The risk of being left behind from the start by Bertelsmann therefore exists. But free applications still wear the yellow jersey of undisputed leader. Napster clones are legion, some of which have been real successes with Internet users around the world. The most popular are Audio Galaxy, Morpheus, LimeWire and Kasaa. Finally, slowly but surely, another revolution is beginning to shake up the Internet world. Called Ogg Vorbis, it is a new music compression format, a competitor to MP3 and completely free. This is not the case for MP3, which is owned by Thomson Multimedia and the German Fraunhofer Institute. Companies that develop software that reads this format must pay $15,000 to acquire a license. The philosophy of Christopher Montgomery, the creator of Ogg Vorbis, is different. Inspired by the “OpenSource” movement, Christopher Montgomery wants his format to be free from “end to end”.

## ###ARTICLE\_START### ID:450

Richard Higson is a consultant in a German company. His specialty: the "free" software Linux. He came to share his secrets. The hackers present at his conference ask for more. At the end of the 70s, he had built his own computer. In 1993, he experienced the arrival of Linux (free alternative to Microsoft Windows) as a revelation. For him, a model of simplification and openness. He does not understand how one can use a messaging service or software without knowing the "pipes". Question of freedom. "We must act for ourselves and not let politicians decide for us", says the one who wants to make the system "transparent". And more respectful of privacy. He takes out his mobile phone: "I will always fight so that no one but me can hear my conversations."

## ###ARTICLE\_START### ID:451

The American computer manufacturer IBM will build in the United States the "Grid" computer network, the most powerful in the world, which will be able to perform up to 13,500 billion operations per second. Costing 53 million dollars (59.4 million euros), it will be financed by the National Science Foundation. This "super-Internet" will be reserved for the world of scientific research. Wherever they are in the country, American scientists will be able to share computer resources and carry out major research projects in the life sciences (for example on the human genome) or meteorology. Grids, a new type of computer network, connect groups of large computers (servers) and use programs based on free software such as Linux. The current Web allows users to view data on other computers, but it remains complicated, if not impossible, to use software installed on other computers. Grid networks allow computers to act in concert using standard protocols. By allowing dozens of servers to work together without being hindered by software differences, these networks can achieve unprecedented computing power. IBM had already announced on August 2 the deployment of a Grid network across the United Kingdom as part of a university research program. Other networks of this type already exist, mainly in government research centers, such as NASA, where simulations of rocket engines are carried out in laboratories scattered around the country.

## ###ARTICLE\_START### ID:452

The Code Red II virus, a descendant of a first version that appeared in July, is much more destructive than experts anticipated, the FBI estimated Wednesday. "This is a very serious virus. We must be careful and take care of it," said a spokeswoman for the FBI's National Infrastructure Protection Center. The variants of the virus are said to have affected nearly 400,000 American computers during the course of Sunday afternoon alone. They are also very active in Asia. At least 200 Japanese computer systems, including police computers, are said to have been infected. In China, "numerous" computer systems have been paralyzed by Code Red II, according to the country's official press. Code Red exploits a vulnerability in Microsoft software (IIS) for Web servers. Fortunately, most sites on the Web use Apache, a "free" software that is not attacked by the virus.

## ###ARTICLE\_START### ID:453

SINCE he transformed the basement of his parents' house into an office-living room-bedroom for his personal use, Minh Le rarely leaves his home: "At first, I tried to set myself reasonable working hours, but very quickly, I found my rhythm: noon to midnight, six days a week." He devotes all his time to enriching and improving his masterpiece: Counter-Strike, which he invented all by himself to have fun on a small PC, and which has established itself in a few months as the most played network game in the world. At twenty-three, Minh is now famous in the world of video games. He could go and live wherever he wants, because he regularly receives offers from various American and European creative studios. However, he prefers to stay with his parents, his three brothers and his fiancée in Surrey, a modest suburb of Vancouver, on the West Coast of Canada. He arrived there in 1979, at the age of two, with his entire family who had fled Vietnam in dramatic conditions. Today, Canada is Minh's only homeland. He knows very little about the past of his elders, does not frequent the local Vietnamese community and has no desire to discover his native country: "I don't have a hobby, a favourite sport or a cause to defend... My only real passion is video games." Counter-Strike was born almost by chance. At the beginning of 1999, Minh discovered Half-Life, a new shooting and fighting game created by Valve, a small American company based in Seattle. He was immediately seduced by its universe, both brutal and very tactical: to survive, you have to shoot better and faster than the enemy, but also be patient and a skilled manoeuvrer. Minh began playing intensively. However, after a few weeks, he got a little tired of it: "Half-Life was excellent, but there is no perfect game - unless of course you make it yourself, according to your personal tastes, desires, fantasies..." However, shortly after its release, Valve decided to publish part of the source code of Half-Life, that is to say the computer program that composes it, for free on the Internet. From then on, any motivated and clever programmer could create modified versions, or "mods", as they wished. This practice of free publication is still rare: most game publishers consider their source code as an industrial secret that should not be disclosed under any circumstances, and do not hesitate to prosecute those who obtain it illegally. But the managers of Valve, close to the free software movement, have a different vision: since the advent of the Internet, vast virtual communities have spontaneously formed around certain games, which thus become famous throughout the world. The best way to foster the birth of active and loyal communities is to let players make the game their own by creating their own versions, which they will continue to exchange and modify for years. MINH, who at the time was a computer science student at the University of Vancouver, knew that he was capable of creating a Half-Life mod. One evening, he threw himself into the adventure, out of curiosity. He discovered that tinkering with a game was even more fun than playing. He also realized that he had a particular gift for this exercise: he solved without difficulty, sometimes without realizing it, all sorts of problems considered insoluble by regulars on specialized Internet forums. His project then evolved rapidly: while keeping the "engine" of Half-Life, that is to say the central core of the program that makes everything work, he decided to create an entirely new game whose rules, settings and characters would owe nothing to Half-Life. We are moving away from the model imagined by Valve, but it doesn't matter... To begin, Minh calmly imagines his ideal game. Of course, it will be a fight to the death; it will be played online, because the real player wants to face other humans, not machines; and, above all, it will be a team game, friendly and supportive: all the tactics will be based on collective play and mutual aid within each team. Before you can play, you will have to join a clan, or create one around you: "Contrary to what is often said, online gaming brings people together, it creates affinity groups on the Internet, at school or in neighborhoods, and triggers lasting friendships. This dimension must be encouraged from the design stage." Furthermore, Minh has always dreamed of a resolutely realistic game, anchored in the current world: "I have never liked games that take place in a cheap Middle Ages, where everyone has magical powers, or in the 25th century, in bizarre galaxies. A game that takes place here and now is much more gripping." He therefore seeks inspiration from a contemporary conflict. The revelation comes to him quite naturally, while listening to the news: his game will pit a group of terrorists against a professional anti-terrorist unit. The two teams will face off in various places of everyday life, as is the case in reality. Minh has a simple, almost childish view of terrorism, which he only knows from TV news and Hollywood movies: "These cases have always fascinated me, because of the action and the danger. I always imagine myself as a fearless and invincible super-cop, who comes to free the hostages, defuse the bombs and kill all the bad guys. That's about it." He decides to call his game Counter-Strike, an easy-to-remember title that sums up the principle of the game. When he actually gets down to work, he realizes that, despite his many talents, he can't do it alone, and starts looking on the Internet for volunteers willing to help him voluntarily. To start, he gets to know a seventeen-year-old schoolboy, Jess Cliffe, with whom he has already played online. Jess lives in New Jersey, on the other side of the American continent, but the two boys don't need to meet to become friends and work together. Jess decides to take care of the Counter-Strike website and forum, which will lead him to coordinate all the work of the volunteers. Little by little, he becomes Minh's privileged advisor and confidant. Unlike his friend, Jess prefers to be a terrorist: "The missions are riskier, there are bombs to plant, hostages to watch. It's a question of character, it can't be explained. And like that, our tandem is balanced..." Minh masters the computer dimension of the operation and knows exactly where he is going. He only needs assistants with an artistic temperament, capable of creating the sets and sound effects. His first team includes five volunteers. The most active is a nineteen-year-old German, Jo Beig, who lives near Stuttgart. Jo has time to waste, because he refused to do his military service and must do civilian service as a nursing assistant in a retirement home. This convinced pacifist is immediately seduced by the ultra-violent scenarios of Counter-Strike, but he sees no paradox: "It's like football, you have two teams, each wants to win by playing better than the other, that's all. The players never use the word "kill", but "frag", a jargon term for insiders: it proves that they know how to tell the difference between the game and reality." The first version of Counter-Strike is ready in a few weeks. Minh decides to distribute it for free on the Internet to test the players' reactions: "Our goal was to have fun, we didn't think of anything specific. I was convinced that the game would be downloaded by about fifty people, no more." But it's a rush. Amazed by the quality of this mod unlike any other, "hard-core gamers", avid players always on the lookout for new things, made it known on the network. Very quickly, casual players adopted it in turn, abandoning the big-budget games produced by the large and very well-paid teams of the big American studios. Valve, for its part, suddenly became very prosperous: to play Counter-Strike, you still had to get the Half-Life "engine", and the easiest thing was still to buy it... EXHAUSTED by success, Minh began to produce new versions at an infernal pace, up to one per month: "I started to neglect my studies, my grades dropped, and I almost failed my exams, but it didn't worry me, my game was more important." The Counter-Strike universe quickly grew rich. To create his various anti-terrorist groups, Minh researched extensively, because the uniforms and weapons had to be completely faithful to reality. He chose four intervention units, the American Navy Seals, the British SAS, the German GSG-9 and the French GIGN: "The players from these four countries appreciate it, they identify strongly with their national units. I also receive messages from players from other countries, they would like me to add their own anti-terrorist police. The most insistent are the Israelis and the Chinese, and also Canadians, who would probably like me to be more patriotic..." On the other hand, for the terrorist commandos, Minh understands instinctively that when you address the entire planet, it is better to be diplomatic: "I did not draw inspiration from real examples. To keep it a game, I must not offend any ethnic, religious or political group... Some of my terrorists wear very generic fatigues and balaclavas, others look rather European, without specifying. There is a group with a vaguely Arab look, but barely... For a while, I considered creating an IRA commando, but I was afraid of angering the Irish, or the English, I wasn't sure..." At the same time, thanks to the work of volunteers, the combat locations are multiplying: factories, warehouses, old and modern cities, airports, ships, forests... With each change of terrain, the teams will have to adapt their strategies, redeploy their attackers, their defenders, their sentries, their artificers, their snipers... Tactics are decided in real time, because the members of the same team are in permanent audio contact thanks to a very sophisticated Internet telephony system, integrated into the game. In the summer of 2001, Counter-Strike is the most popular game in its category: more than 9,300 non-commercial servers spread across all continents allow you to play twenty-four hours a day. For the release of the latest version, some forty free download sites have been installed by volunteers, including in China and Russia. The success is particularly spectacular in Northern Europe. On Clan-Base, the large European multi-game server frequented by more than two hundred and fifty thousand players, Counter-Strike represents nearly 80% of matches. The proportion is of the same order in gaming rooms and tournaments. In Scandinavia, Germany, the Netherlands, England and France, semi-professional teams are appearing that travel the continent to play matches sponsored by large companies. The largest German clans, such as Shroet Kommando or Mortal Team Work, have obtained the status of sports club from the authorities. In the United States, progress is slower, but, recently, the Americans are catching up: a tournament is planned for December in Dallas (Texas), with $150,000 in prizes to be won... Meanwhile, in Vancouver, Minh's life has not really changed. He ended up passing his exams, just barely. Shortly after, he received a call from Valve: "I was surprised, worried too, but I was wrong. They offered to pay me to continue working on Counter-Strike, without changing my methods or my way of life. Now I am happy, I earn money doing what I love." His team of volunteers has been renewed, and today has about twenty members. Jess Cliffe, who entered the University of Virginia, remains his faithful second. Valve's managers in Seattle are only two hours' drive from Vancouver, but Minh rarely sees them: "I get along with them because they understood that they had to let me be free. If one day they don't like my work anymore, they will stop sending me money, that's all. There will be no discussion or compromise. I know what I want and I do it."

## ###ARTICLE\_START### ID:454

Washington, from our correspondent. Computer researcher, a risky job in the United States? One would be tempted to believe so, given the misadventures faced by Dmitry Sklyarov. This 26-year-old Russian, a programmer for the Moscow company ElcomSoft and father of two babies, has been behind bars for three weeks. He had gone to Las Vegas around mid-July to participate in the big hacker convention, Defcon, and to present, at a conference entitled "E-book security, theory and practice", a software that he developed for his company. Can opener. His program allows you to remove the locks that protect electronic books published by Adobe, an American firm based in Silicon Valley. With this can opener software, the user can translate the book he buys into the "PDF" language, a very convenient file type for reading, and drag it to his Palm Pilot or laptop. All this is perfectly legal in Russia and most countries. But not in the United States: the DMCA, or Digital Millennium Copyright Act, a 1998 law that came into effect last year, makes developing such programs a federal crime. On July 16, as he was leaving his hotel, Dmitry Sklyarov was getting ready to go to the airport after Defcon when two FBI agents pounced on him. In the grand American tradition, they read him his rights, handcuffed him, and took him away on the grounds that he was distributing a product that circumvented copyright laws. Since then, a vast protest movement has been growing rapidly on the Internet around the "Dmitry affair" (1). A few days after the young Russian's arrest, Adobe executives, based in San Jose, California, saw a hundred people march through San Francisco. Computer scientists, artists, and booksellers demonstrated, shouting "reading is a right." In two weeks, a support network of nearly a thousand people has formed in various American and European cities, multiplying demonstrations and calls for a boycott of Adobe. Frightened, the San Jose firm retreated. On July 23, it withdrew its complaint and requested the release of the Russian researcher. But the American Justice Department has still not heard it. It seems to want to make an example. After spending a few days in a Las Vegas prison, then in a detention center in Oklahoma, Sklyarov is now locked up in Santa Clara, California. With a clean-shaven head, sunglasses, a goatee and a T-shirt in the colors of the free software Linux, David Merril, 36, leads the support group for Dmitry in Washington DC. "There are about twenty of us here fighting against the DMCA. This case is an opportunity to draw public attention: no one knows that the law prohibits Americans from lending an e-book to a friend or even reading it to their children." David and his friends are preparing leaflets and a demonstration in front of libraries. They are considering reading aloud one of Adobe's e-books, an activity prohibited, not without ridicule, by the license imposed on buyers. "It's frightening what's happening. More and more foreign researchers, specialists in cryptography, are reluctant to come to the United States," continues David Merril. "Alan Cox, one of the star programmers of Linux, who lives in Wales, has even just cancelled a conference in Washington!" Another researcher, Ed Felten, a professor at Princeton, recently cancelled a speech at a conference on software security. Felten had planned to present the weaknesses of an encryption system, but lawyers for the recording industry threatened to sue him. The professor has filed a complaint in his turn, in the name of freedom of expression. Risk of copies. Of course, Dmitry Sklyarov and the company that employs him know very well that the software can be used by dishonest people. It can allow books to be copied endlessly to sell them illegally. But, as anti-DMCA activists point out, aren't manufacturers of VCRs, cassettes or even crowbars in a similar situation? In any case, the Dmitry affair has rekindled the debate on the fundamental flaw in the new American law (from which Europe is seeking inspiration...): this law allows copyright holders to impose all the restrictions they want on the use of their products, to the detriment of consumers' rights. As ElcomSoft CEO Alexander Katalov pointed out with some irony, it is Adobe's software that is illegal in Russia, since it takes away from people, without even warning them, the right to use the products they buy as they please. (1) www.freesklyarov.org

## ###ARTICLE\_START### ID:455

Taking advantage of its dominant position in colanders to impose its own brand of pasta. This was schematically the reproach addressed to Microsoft, and which has earned it an antitrust lawsuit with twists and turns since May 1998. In this case, the colander is the operating system (Windows), a vital organ placed in each computer; the pasta, the navigation program (Internet Explorer). While the number 1 in software is preparing to market a new version of Windows (read above), its competitors are now accusing it of wanting to flog its own tomato sauce, grated cheese and even salt and pepper. In other words, its instant messaging software, e-mail, audio playback, etc. Finally, American associations defending individual freedoms also suspect it of wanting to control a whole bunch of information on pasta eaters. On the surface, nothing has changed since 1995: the problem posed by the integration of Internet Explorer into Windows is repeated with other products, added in turn to the operating system. But this time, it is not a nascent Netscape that is confronted with the ogre of the sector. It is essentially another giant, AOL-Time Warner (today owner of Netscape), which is seeking to impose its services and standards on the Internet. On July 24, Charles Schumer, senator of the State of New York, considering that the integration of certain software into the operating system harms Microsoft's competitors, requests that the firm be heard by the Senate and that the release of the product be delayed. "That sat me down," reacts Nicolas Coudière, Windows XP product manager at Microsoft France. AOL, a fierce competitor, goes to see its senator. Anyone can say that Microsoft is still abusing its monopoly. Since we haven't always been clean in the past, he will be heard. But this time, it's based on nothing." Review of current litigation. 1. Access to the Internet. We thought the matter was settled. In response to the decision rendered on appeal at the end of June in the antitrust trial that pitted it against the American government, Microsoft announced on July 11 that it was authorizing computer manufacturers to remove Microsoft product icons from the home screen. "Windows XP will be delivered with an empty desktop [home screen], explains Nicolas Coudière. Manufacturers are free to place the icons of their choice." Said icons increase the propensity of users to select the access provider or software thus promoted. On July 26, Compaq announced that it would give AOL first place on its computers. But at the beginning of the week, Microsoft provided this new clarification: if a manufacturer registers an AOL icon, it must be accompanied by an MSN icon (Microsoft's service in the United States). 2. New tools. With each new version of Windows, the features expand but always raise this question: isn't a Windows user pushed to use other Microsoft software, a bit like buying bags of the same brand as your vacuum cleaner? Especially since the company is openly seeking the integration of all its products. "It's very practical for the user but, unfortunately, the accessories installed are all Microsoft software that conform to Microsoft standards, whereas in a Linux distribution, the integrated software conforms to multiple standards," laments Jean-Paul Smets, one of the leaders of Aful (1), a strong supporter of Linux software, a competitor to Windows. Charles Schumer, the New York senator, is asking that Microsoft "offer open access to its competitors allowing them to offer their software on an equal basis with Microsoft applications." 3. The Java language. Windows XP will not read Java, a computer language developed by Sun and used by many websites. Its integration was impossible because of a recent amicable agreement with Sun, explains Microsoft. For its competitors, Bill Gates' firm intends to promote its own system. "Microsoft is withdrawing a technology to which it is hostile and penalizing all users," believes Eric Mahé, marketing manager for Java technologies at Sun France. 4. MP3. Windows Media Player software will read MP3 files, but will not allow them to be created. "This would involve paying a fee to the consortium controlling the standard," explains Nicolas Coudière. "The price of Windows would be affected." For competitors, Microsoft wants to impose its own audio standard. 5. Privacy. Windows XP includes a device, Passport, for centralizing personal data relating to Internet users (name, password, etc.). Officially, Microsoft wants to simplify users' lives. But at the end of last week, American consumer and individual freedom organizations filed a complaint with the Federal Trade Commission. Their fear: this device "makes Microsoft the central repository of an Internet user's information and commercial transactions." The company's response: "We want to store this data so that it is not disclosed to third parties," explains Nicolas Coudière. "I understand consumers' fears. But we are in the realm of trial by intent." (1) French-speaking Association of Linux and Free Software Users.

## ###ARTICLE\_START### ID:456

Since yesterday, the Linux penguin has been listed on the Paris Stock Exchange. The world's second largest publisher of "free" software and operating systems, the French SME Mandrakesoft has succeeded, to everyone's surprise, in its introduction to the market. An achievement in this season of financial market depression. Especially since four American publishers of Linux products were forced to abandon the Nasdaq just a few weeks ago. And an unusual introduction when you consider that the company is based on a product that is delivered free of charge, can be duplicated infinitely and that it tracks its users to try to turn them into customers. "The conditions were very difficult, investors were sulky, foreigners were absent, it was mainly individuals and Linux users who subscribed," says Jacques Le Marois, its president. Nearly 700,000 shares representing 20% of the company's capital thus found buyers at a price of 6.20 euros per share. They represent a windfall of nearly 30 million francs for the company (4.26 million euros). Mandrakesoft owes this financial success in large part to the free software community. The company has banked on a "viral" dissemination of information and mobilized the 90,000 subscribers to its newsletter by inviting them to buy shares. "Our shareholders are our users, unlike other companies our stock market listing will allow us to strengthen our relationship with them, explains the CEO, formerly of Arthur Andersen. They will be our guardians of the temple." Salaries surge. Modestly valued at 16.8 million euros compared to nearly 76.2 million a year ago, Mandrakesoft has come a long way. The company nearly went under and above all lost its soul, swept up in the whirlwind of the new economy. Founded in 1998 by three Linux enthusiasts, Mandrakesoft moved up a gear two years later and raised 18.30 million euros to finance its development. Viventures, Axa Finance and Lazard bank: the round table was prestigious, but the venture capitalists made their participation conditional on the arrival of a new "visionary and experienced" boss. Poached from Silicon Valley, the rare pearl was called Henry Poole. A fan of free software and open source (making trade secrets freely available), he wanted to make the company a world leader in e-learning software (distance learning). No more selling boxes of Mandrakesoft's Linux version and derivative products, the 100% IT start-up was called upon to reorganize itself around the Internet. "He wanted to make it a dotcom, with all the excesses that go with it," recalls its current president. The result was a real surge in salaries, notably caused by the arrival of American strategists paid more than $180,000 per year (205,870 euros). The inflation of expenses and the drop in sales endangered the company, which disoriented developers began to leave. In eighteen months, it lost 12.96 million euros, three times more than the turnover over the same period. More reliable and less expensive. In May 2000, the founders, who held 40% of the shares before the IPO (30% today), decided to take back control. They put an end to the American experiment by sending thirty managers back to their studies. But while refocusing the company on its original activities, Mandrakesoft opened up, in the manner of IBM's "global service", to consulting and expertise activities in Linux solutions. Distributed free of charge or in a paid version, as desired, under the GPL license, the freest of all, Mandrakesoft's software has spread very quickly and is running a large number of servers. "We now have to identify our users, who are increasingly numerous, and turn them into customers, it's easier than finding customers directly," explains the president. If the sale of "boxes" continues to represent 85% of revenues (3.5 million euros in 2000), the new, more lucrative service activities should quickly take over. And the rising generation of young computer scientists is playing hard for the Linux environment. "By reaching management positions, engineers trained during their studies in the world of free software are immediately adopting Linux, which is more reliable and less expensive," judges Jacques Le Marois, whose new customers include the Atomic Energy Commission, the insurer Macif and the American pizza delivery company Donato's. First listing: Friday.

## ###ARTICLE\_START### ID:457

Let's be honest, I'm a little disappointed. Over the last seven days, you've flooded my email box with lots of sweet little notes, with a nasty little beast as a bonus: a cute little worm that was just waiting to infect me in turn. Tell me, my rascals, have you ever heard of computer prophylaxis? Like an earthworm, I apologize profusely to the majority of readers who have regularly updated antivirus software installed on their computer, and who, upon reading this column, will say to themselves: "Ah! but darn, the not very humble one, do you absolutely have to come back to this one again?" Yes, I have to. After receiving the same message more than 300 times, from different people, I have to let out a scream. The last week has seen the network of networks suffer from attacks by a charming little beast, a little piece of malicious computer code like no other, named SirCam. For my part, a wolf cub at heart since forever, and a lover of The Jungle Book, I would have liked to have given him the name of Sherr Khan, the ugly tiger who wanted to make a mouthful of Mowgli, but who, fortunately, did not want to become caliph in the caliph's place. The malicious one, which resembles other equally well-known worms, is included in an attachment that you innocently receive by email from a known or unknown person. For my part, as I have configured my anti-virus software to intercept everything that enters my email software, in a few seconds, the virtual tiger disappears. In the body of the email is the following message: "Hi! How are you? I send you this file in order to have your advice. See you later. Thanks." However, if by misfortune, you click on the attachment, you are in trouble. Indeed, this villain takes a look in your address book, as well as the cache of your browser to extract all the email addresses, to then send to all these innocent correspondents, a file from your computer, which it will have previously contaminated. And this file could be not only any file, but also, the business plan of your company. Hello confidentiality! In addition, by running SirCam, you have a one in twenty chance of seeing this charming beast erase your hard drive. Admit that it is better as a percentage than a 6/49 ticket. "SirCam Lottery, one chance in twenty of being a loser." In short, could I respectfully ask you, dear readers who have not yet updated their anti-virus or who dare to navigate the virtual floods of the network without even any protection, to remedy the situation. You know, an anti-virus software is not expensive, and it would prevent my virtual mailbox from being clogged with your missives. You really don't have any money? Borrow it, pinch it, but please leave my email alone. You can also download, from the Symantec site (www.symantec.com/avcenter/venc/data/w32.sircam.worm@mm.htm ), a small application that will take care of eliminating this nasty worm forever. Inevitably, once again, the disciples of the Holy Apple, the colleagues of Le Devoir being part of it, are wringing their guts with laughter, because they are not at all affected by SirCam. Fortunately, there is still justice in this world, Windows NT or 2000 users are also not affected by SirCam's actions, because a bug prevents it from reproducing in these environments. Memory, memory, who is the most humble? I've always told you, one of the best ways to improve your computer's performance is, without a doubt, to add RAM. A little 128 megabytes of RAM never hurt anyone, quite the contrary. Just like a little Provence gray, on a hot and humid July day. Now, did you know, with the tremendous drop in the price of RAM, today is the day you should take out some hard cash from your savings to invest in RAM for your computer. I recently saw 256 megabyte RAM sticks for less than $70. When I think that just a few months ago, I had my friend Pépé buy a 128 megabyte stick for $80. Dear readers, the drop in component prices is working in your favor. Rush to buy your pig, and then, at your favorite retailer, to invest in a few RAM sticks. You will see, by adding a small 512 megabytes of RAM, your operating system, whether it is Windows 2000, Linux or MacOS X, will thank you. A little modesty, readers Dear readers, don't you think I have a big head as it is? Don't do like the friendly Philippe Basmoreau who dares, with the utmost seriousness it seems, to call me Grand Master. Tell me, big Redhead, would you like to call me "Commander of the believers" or even "Supreme Light"? Just like that, in all modesty? "Hello Grand Master, I have become one of your faithful. However, for a few weeks now, it is with unbridled fervor that I have been consulting your section on operating systems. Your articles are very interesting and full of common sense, but allow me to ask you a question in order to refine my profane soul. With a Linux system, what room for maneuver and compatibility do we have in order to use software such as Photoshop or Dreamwever and even, for the diehards, Microsoft software? Forgive my insolence, but wouldn't it be useful to make a kind of comparative table incorporating systems and software from "the uncle and the Holy Father" in order to clarify the path of lost sheep. Thank you and good luck because, like you, I am from the congregation of non-vacationers;-)" Philippe Basmoreau You would be surprised, O dear reader, at the possibilities offered by the different emulators available with Linux. One of the best known and oldest open-source projects is Wine (www.winehq.org), which allows you to run many Windows applications. Even Uncle Bill's applications run there, sometimes successfully, other times, meh! But don't forget, after all, it's free. To find out which applications can run without problems under Wine, I advise you to visit the site "Code Weavers Wine Applications Database" (http://appdb.codeweavers.com ), a directory of applications that do or do not work with Wine. Another solution is to create a virtual machine using an application like VMWare (www.vmware.com ). While Wine allows you to do without Windows, by installing VMWare, you must have a genuine copy of Windows. But be careful, compatibility is there. Moreover, one of VMWare's main markets are companies that provide technical support with multiple environments. So you can switch from a Linux window to a Windows 2000 window without any problem. Copying and pasting between the two environments is also easy. But this compatibility comes at a price. VMWare is not free. But if compatibility with Windows applications is essential, VMWare is the solution. Even the world of the Holy Apple is now accessible to the Penguin with Macintosh emulators for Linux. Take a look at Basilisk (http://www.uni-mainz.de /~bauec002/B2Main.html ) or Executor (http://www. ardi.com), two surprising emulators. By doing a bit of research on the Internet, and using certain keywords like "emulator", "linux", "windows" and "macintosh", you can find a large number of emulators that work with the Penguin. The LinuxApps site (www.linuxapps.com) also offers many links to emulators of all kinds.

## ###ARTICLE\_START### ID:458

When there is a demonstration or a summit, Mathias luggs "these big machines" to the site from Paris, he says, tapping affectionately on his monitor. Neither editor-in-chief nor information professional, Mathias is one of the volunteer webmasters of the French site IndyMedia (1), one of the fifty or so branches of the most structured international information network of the anti-globalization movement, one of the "coordinators" of this committed information site. If the Internet was used very early on by activists for another globalization, the Independent Media Center (IMC) was born during the Seattle demonstrations in December 1999, during the meeting of the World Trade Organization (WTO). Originally, "independent" journalists, supported by non-commercial channels like Freespeech TV. Its promoters, from the American radical left, dreamed of a sort of "democratic CNN website", where one could find news, articles, files, columns, sound, video... Since the first site went online, around fifty have appeared, all autonomous, in the United States, Europe and South America. "New model". The IndyMedia France site, which today receives, according to its promoters, "400 visits per day, 2,500 during peak periods", was set up at the time of the José Bové trial in Millau in August 2000. Its charter, like that of its sister sites, aims to promote "objective, passionate and committed" information. Compatible? No matter. This counter-network sees itself above all as a breach in a media world that is locked down by mega-communications groups. The traditional anti-media charge is fierce, particularly against television "where we only see so-called rioters and anarchists", according to Mathias. Indymedia wants to be an antidote to "media lies". A free media. Or liberated. According to Naomi Klein, journalist-activist, author of No Logo and symbol of the international social movement (Libération yesterday), it would be "a new model of independent media, which transcends borders as no information network has done before". Concretely, IndyMedia takes maximum advantage of the flexibility of the Internet: powerful servers, continuous information, multimedia reports on all the demonstrations and incessant exchanges between the different local sites, thanks to volunteer translators. There is the video of the Swedish demonstrator falling to the ground, hit in the back by police bullets during the clashes in Gothenburg. News on GMOs, North-South relations, the role of the WTO. Dozens of contributions on violence in the demonstrations. Or, more recently, the thousand ways to get to Genoa by bypassing the roadblocks. The editorial team is not centralized and alternative "journalists" feed the site by e-mail. Anyone can post their own articles or videos on one of the sites. An organization that is perfectly suited to the Internet media, "cheap" and "decentralized like the movement is," according to Eric George, a researcher at the University of Quebec in Montreal. To function, local "indymedias" call on volunteers, but also launch appeals for financial support, with account numbers to back it up. In France, the appeal was launched in August 2000, via the Attac site. On the technical side, the activists drew heavily on free software, these free and modifiable programs, very popular with the alternatives. Computers, filming and recording equipment were also needed. In Seattle, Washington, Prague, or in April in Quebec, during the Summit of the Americas, the mega-network launched an alternative media center; more than 450 "indies" were listed. This is not much compared to the 3,000 "institutional" journalists present at these summits, but the anti-press card people had their press room, precisely. "The international press was talking about police discipline when we were publishing digital photos showing the use of rubber bullets," recalls an indy. They were the ones who denounced "the repression" of activists after Prague, or the "police provocations" at the end of June in Barcelona, when 20,000 demonstrators denounced the policies of the World Bank. Well before the international press agencies picked up on this information. Quest for credibility. Between the desire for total democracy and the receptacle of libertarian tendencies, how far can the indies, who dream of laying the foundations of a "planetary agora", go? Based on the principle of an open site, "contributive" according to the consecrated expression, there is no direct censorship or prior control, and the rare texts removed from the site are done so a posteriori. In one year of existence, the moderators of the French site have only deleted "about twenty contributions out of 3,200", says Massalia, another webmaster. A few anti-Semitic messages, and two or three texts of "Chinese propaganda". Each article is followed by a link ("add your comments") where Internet users can react and correct errors: "When there are enough visits to the site, there is always someone to say "what is this bullshit?", says Massalia. In fact, the quest for credibility is, even if they deny it, at the heart of the indys' approach. If recognition by traditional media is not the goal in itself ("we don't need the press," Mathias repeats), the resumption of one of their news items by an agency or newspaper is also evidence of a certain success. "When it comes out in the press and it helps to have stronger pressure, it's bingo," says Massalia. Since their creation, IndyMedia sites have established themselves as an important source of debates on globalization. This is evidenced by the traditional journalists who hang around the Indy-branded press centers during international conferences, "or who prepare their reports on IMC sites," as Eric George reports. Proof that, failing to impose a radically new model of information, the indys have found their place in the media landscape. (1) france.indymedia.org

## ###ARTICLE\_START### ID:459

Happy holidays! That's the least your not-so-humble self can wish you at the start of this long break. Let's cross our fingers that our friend Galarneau will spread his rays all over Quebec. But, always faithful to his post, the columnist takes the opportunity to come back to last week's column. On the menu at our virtual table: a Microsoft starter, a Word Perfect dessert, and, for the main course, your choice of Mac or Linux. Come on, it's with all my heart, it's the papat who's treating you. As was to be expected, a lot of reactions from the very humble and modest readers, on the new Windows XP activation process, which we talked about last week, while pointing out the "minor" problems that the MSN personal messaging service had been experiencing for almost a week. Sorry for not having mentioned it, but sometimes my texts are written several days before their publication. Which was the case with the aforementioned column. However, I was rather surprised by the number of Word Perfect fans who took up their pens to praise their favorite text editor, while praising its great flexibility. But, to start, let's season this column with a hint of Microsoft, just to spice it up. Windows XP, MSN Messenger and a certain .NET strategy A friend who lives in the old, but oh so charming Capital, a friend of the Mac, and a communicant at the Church of the Holy Apple, could no longer stand, between two sips of a beer that was not only cold, but eminently beneficial at the end of a busy day, to laugh at the loading time of Windows XP on my valiant portable torpedo. It must be said that the not very humble, with the number of junk, kid's patents and other completely useless, but sometimes brilliant, software packages that he regularly loads and tries, does not have the most optimized machine on the market. Allow me, my dear You, friend who was born on the rue des Braves, to tell you that normally, Windows XP loads faster than Windows 2000. But let's get back to Windows XP for a moment. The readers, and allow me to point out that it lacks female readers, have all reacted with emotion to the Windows XP registration process. All the more so since last week, Microsoft was singularly short of diesel, following the problems that this firm experienced with its personal messaging service MSN Messenger. ICQ, AIM, MSN Messenger, personal messaging services have taken up a lot of space in the lives of, not only ordinary users, but also of a growing number of workers who use these services to communicate sometimes, more efficiently than with the telephone. Now, MSN Messenger, the new version included in XP, is at the very heart of Microsoft's entire .NET strategy. As to what really happened, the reasons for this MSN outage, the information is, without being contradictory, rather thin. A vague technical problem, a Microsoft that was very discreet, very discreet even, too discreet some would say, on the moment when the service was going to be restored, and many frustrated users, even enraged on occasion, who allowed themselves, with reason, to have doubts about this Microsoft strategy. How can we trust a company that presents its network strategy as the best thing that has happened to humanity since the invention of sliced bread, when one of the major components of its strategy not only experiences serious problems for almost a week, but in addition, the information provided to these same users, therefore its customers, is given drop by drop. I dare not imagine the mess in our homes if this had happened when the entire .NET strategy had been implemented. Allow me to share with you, especially readers who are not on the Internet, the words of Cyrille Lauzon, which he kindly left on the Devoir website: "This new activation key has provoked intense debates for some time on the bulletin boards of several sites. And I do not believe that the author [i.e., the not very humble one] is paranoid at all, this is indeed where Microsoft wants to get to. We can also emphasize the fact that this new version of Windows will serve as a springboard for Microsoft's new .NET strategy. This will promote the use of Microsoft Passport (HotMail users already have one and soon MSDN users will have another M$ site). Passport is in fact a central file where we deposit our personal information. In this way, we only have to place our information on a server and access it from anywhere with any device that can enter it [computer, cell phone, electronic diary...]. The problem, and this is where I want to come, is that the server in question is Microsoft's. Personally, I don't want to go and put all my personal information and trust them. There is also the fact that they know what hardware I have on my computer and they also want to promote the use of software through monthly payments [with Office XP]. And what about the famous Smart Tags that could be inserted into any web page to advertise. It is for these reasons that I say no to Microsoft's imperialism and that it is high time that people wake up and think about alternatives..." In addition, a certain Steve Gibson, a programmer and editor of truly indispensable applications, whom I have already spoken to you about, is sounding the alarm about the implementation of certain network components in the future Windows XP. This implementation, which, however, it must be said in Microsoft's defense, respects all established standards, would make future XP machines potential weapons made available to hackers. I will not bore you with all the technical details of the thing, allow me instead to direct you to Steve Gibson's site (www.grc.com ), so that you can form your own opinion on the matter. In fact, I ask you, even implore you, to take the time to read Gibson's words, which even if they are written in the language of a certain William, are, while being technical, very interesting. Yet, and I repeat once again, this is not about "Microsoft-bashing", but about facts. For my part, the arrival of XP, even if I continue to believe that the registration process and the .NET strategy will, in the long term, be a nuisance for the user, will nevertheless be a blessing for many users, because finally, we will be able to get rid of the old unstable relics that are Win 9x and ME. Let these major irritants be removed, and for my part, I will be one of those who will continue to praise the magnificent stability and flexibility of XP. And, a dream that will never come true, let less fortunate and less equipped Internet users be made available the possibility of downloading Windows 95 for free to allow them at least to continue to use computers that seem, to us, very outdated, but which for a large segment of the population, are entirely satisfactory. Flowers for the texter Surprise for the columnist, still not very humble, even in this summer period, Word Perfect users are all that is more "alive and well and kicking", as my favorite bluesman, Johnny Winter, would say. While deploring the slight delay in the delivery of the French version of Word Perfect, a faultless one on this side for Microsoft, all praise the power and extreme flexibility of Word Perfect. Even a friend of mine, Mario the friendly silver fox, eternal gentleman, could not resist the call of this great classic. Ouste Word, de retour Word Perfect. By the way, dear Mario, your book, is it booming? The columnist, complaining about the lack of reactions from reading friends, bam! on the Devoir website, one of them, Johanne Bouffard, leaves us these comments: "I completely agree with your article about Word Perfect. For my part, I was called retarded because I continued to work with WP non-stop and this since version 4.1 I also learned word processing on Word Perfect. After several years of work, I manage to work with Word but without having the results so I need it so quickly. So I have remained a die-hard fan of Word Perfect and I even manage to convince professionals to work with this software because I am so convinced of it... Thanks again for the article.... It is very good and I hope that die-hard Word fans will understand the message that we are not in the Stone Age because we use Word Perfect." What is also surprising are the few messages from Word Perfect users who still use old versions (5.2) and who continue to do everything that Word cannot, on occasion, do. Obviously, it was to be expected, and they are quite right, the apostles of the OpenSource movement, like Jean-Guy Bélanger, have also reacted. "I would just like to add to your comment about the Microsoft and Corel office suite. There are several other interesting and inexpensive office suites, including Star Office 5.2 (version 6 is currently being prepared and will be opensource), completely free and available in several languages [English, French, etc.] and available for Linux, Windows, Mac, Unix OS [PTH note: forget about Mac for now]. The paid version comes with a manual and CD, and at little cost. This can be an advantageous solution for many small and medium-sized businesses and self-employed workers who have few financial resources. And what's more, the documents are compatible with the Office 97 and 2000 suite..." Allow me, once again, to make a "plug" for the Devoir site. I like to receive your comments and what's more, if you leave them on the Devoir website itself, you may be helping another user, or you may be helping to start a debate. In short, don't hesitate to visit the site and leave your comments on it. As you can see, you are read and that is greatly appreciated. Because this column could not exist without your comments and ideas. To your keyboards, ladies and gentlemen. Mail from the rotule My friend the galopin gourmet, a very dear and close friend of the Marquise du Boa, an epicurean by trade, has just become acquainted with the Office XP suite, and now swears by it (Lord, forgive him, because he doesn't know what he's saying, surely the effect of an excellent port). This gourmand, while praising the new Microsoft suite, as well as his new laptop, to the point of buying a few $5 lanterns in his church, to thank a certain God for favors obtained, nevertheless complains about untimely messages that Word sends him about a certain macro. It must be understood that, in the past, smart alecks have amused themselves by programming viruses using Word's macro functions. But it is necessary to understand a little what macros are. They can be very practical on occasion. For example, those who use the spell checkers Antidote or Correcteur 101 use macros to be able to call these software programs directly in the Microsoft text editor. However, with this new version, far from eliminating the problem, Microsoft applies a patch in its own way. That is to say, it deactivates the macro functions of Word from Office (phew! the play on words, a big round of applause) and activates its security at the maximum level. Hence the little messages that my friend the galopin gourmet who uses software that uses macros. And he wonders how to eliminate these little alert messages. Do not worry, dear galopin epicurean, Microsoft has thought of you, as long as you have a powerful anti-virus, updated regularly. By using the Options submenu in the main Tools menu, you can access a host of parameters used to optimally adjust your text editor. And, if you look carefully, hedonistic friend, you will find a Security function there, leading to the macro parameters. You can thus activate a high alert level, and continue to receive "zoulis" words of love from the Word software, or even, set its alert level to the minimum, and thus no longer receive warnings. But this, let us repeat, if your anti-virus is updated regularly and the scanning functions (virus scan) when opening a Word file, are working properly. Go in peace, and I await your invitation to a future meal of rabbit with prunes. I'm already licking my eyebrows. And the rest of the virtual meal? Despite my good intentions, here I am running out of space, having abused as much as possible, on the paper space that this noble pamphlet grants me. Next week, I promise, I promise, I promise, no Microsoft. The main meal. Only Mac, Linux and a few really good little applications. In addition to a computer monster, which I recently installed at a friend's house. I kiss you and have a pleasant vacation.

## ###ARTICLE\_START### ID:460

The proponents of free software, programs that can be copied for free by anyone, are today launching a monkey attack on the Microsoft fortress. "Mono" (monkey in Spanish) is a set of software intended to counter Bill Gates' new strategy. This one, called ".Net", aims to transfer all the programs (word processing, games, etc.) usually stored on a computer into "services" accessible from the Web. For the advocates of free software gathered around Mono, this project aims to prevent Microsoft from extending its monopoly by providing the general public with competing software.

## ###ARTICLE\_START### ID:461

A huge mess with an aborted start to the legalization of downloading, a majority in turmoil, turmoil all the way to the United States where the American manufacturer Apple is brandishing the threat of abandoning the French online music market... More than six months after the start of its examination, the highly controversial bill on copyright, or DADVSI (Copyright and related rights in the information society), was definitively adopted yesterday by Parliament. A late transposition of a European Union directive, the DADVSI creates a new system of fines for Internet users who illegally download files and legalizes the embedding of MTP (technical protection measures) on digital files that organize and limit copying. Unsurprisingly, only the UMP voted for the text and still not unanimously since some of its members, supporters of the global license like Alain Suguenot or Christine Boutin or of greater protection of free software, voted against. The UDF also voted against, as did the PS, the PCF and the Greens. The president of the UDF, François Bayrou, denounced a text that "seriously" lacked the principles of the Declaration of the Rights of Man and of the Citizen, while the socialist Patrick Bloche castigated a "shaky, anachronistic, unintelligible text, unsuited to technological developments". An assessment that is the polar opposite of that of the Minister of Culture, Donnedieu de Vabres, according to whom the text "guarantees respect for copyright, interoperability and the right to private copying". If the principle of interoperability (the right to play downloaded music on the portable player of one's choice) is set in stone in the law, it is framed by an independent administrative authority that can only be seized by professionals and not by users. A step backwards to be put down to the Senate since the project adopted by the National Assembly required the implementation of interoperability under judicial supervision. In other words, as with the private copying puzzle, the parliamentary majority is referring to yet another authority, the 35th of its kind in France, to force Apple to open its format to all consumers and not just those equipped with their iPod. The text will still have to be validated by the Constitutional Council following its referral announced by the opposition. And specified by decrees whose content will determine the more or less repressive nature of the sanctions. The more or less systematic and massive application of fines (from 38,000 to 300,000 euros) will reflect, according to music professionals who support the law, the will or not of the public authorities to opt for a "truly dissuasive" policy.

## ###ARTICLE\_START### ID:462

After a radio crossing on the airwaves of France Culture, Lindbergh lands his cuckoo on the Seine for an evening at the Batofar. Jean-François Peyret and his company tf2 are thus extending the work carried out with the students of the Théâtre national de Strasbourg around Brecht's text One Flew Over the Ocean. On this occasion, a "digital object" will be launched, designed by Agnès de Cayeux and Christophe Hubert, accompanied by a live performance by Vincent Epplay, sound artist, based on extracts and sound effects recorded during rehearsals. This free variation in images of the radio score is composed of a series of snapshots taken during workshops by students from the TNS and the Sorbonne. Downloadable from www.tf2.asso.fr and distributed on diskettes tomorrow evening, the program under the Art Libre license (1) can be modified at will and enriched in the manner of free software, by substituting the original images with your own creations. The most skilled will have fun entering the code, freely accessible, to tinker with it. (1) http://antomoro.free.fr/c/copyleft.html Batofar. Opposite 11, quai François-Mauriac (at the foot of the BnF), 75013. M° Quai-de-la-Gare, Before, Friday 29/6 from 8 p.m. to 9:30 p.m. Free from 8 p.m. to 9 p.m.

## ###ARTICLE\_START### ID:463

Bob Young, 47, is the boss of the American company Red Hat, created in 1994 to distribute free software: Linux. The paradox is only apparent. This program, a competitor to Microsoft's Windows, is the figurehead of the "open source" movement, which advocates for the free provision of the "source code" of programs. This does not exclude commercial activity: Red Hat, which has just recorded its first profits in its history, makes its money by selling services around Linux. A model for the distribution of music online? Bob Young, a copyright slayer, gives some ideas. Can we imagine an Internet without copyright? The copyright system goes against freedom and the current excitement on the network. It is a godsend for multinationals, a source of resources for lawyers, but a brake on innovation. The American Congress is currently debating intellectual property on the Internet. What should we expect? In the United States, the debate is less simple than elsewhere because it touches on the Constitution. The discussion takes us back two hundred years, to the time of Thomas Jefferson and Benjamin Franklin, who fought against the creation of a patent regulation structure. It was said then that inventions could be registered, but not ideas. This allowed the development of different machines used for the same things. Today, that has changed. The Patent Office no longer has the function of differentiating the idea from the invention. It is the idea that dominates the product, the opposite of Jefferson's fight. But, in the music sector, what to do? Copyright is here a means of overprotecting industrial interests, the majors only seeking to preserve their abundance. Which is not necessarily a good calculation. Napster and other music exchange systems invented the "next door" model, in which each user becomes a potential distributor. The record industry has neglected this element in its marketing. Worse: its operating principles are the opposite. This type of system has revolutionized the artistic director's job by allowing the Internet user to choose the artist's titles to be distributed, while this function is a central element of the legitimacy of record companies. On the other hand, consumption on Napster is not the same as in a record store; it is rather complementary. The Internet user who discovers an artist on the Internet can go and buy his album. This is a benefit that the music industry does not take into account. On the Internet, it should compete with itself by setting up its own music file exchange systems. Why does it not do so? The fact that global music production is dominated by five majors does not encourage innovative strategies. If there were a hundred record companies of the same size on the global record market, at least one would have joined Napster and MP3.com, and the others would have followed suit. Instead, it sought to gain time until it could master distribution on the Internet itself. The days when it took five years for a product that appeared in Hollywood to reach Bangladesh are over. Today, it takes six months, and in five years, it will be just one month. All the record companies are keeping a defensive attitude, while the winner will be the one who agrees to question its business model. The strategy of buying innovative companies adopted by the majors will not solve their difficulty in anticipating the future of music distribution. The only one who seems to have understood this is Bertelsmann, which has chosen to ally itself with Napster.

## ###ARTICLE\_START### ID:464

American David Cheney, a former researcher at the Internet Policy Institute, is the main author of the rather critical report on Internet voting that was recently submitted to the White House (Libération, March 14). While in Paris, he comments for Libération on the follow-up to his work. What happened to your report on Internet voting? Not much, actually. It was commissioned by Bill Clinton and I submitted it to the White House when George W. Bush was already president. Neither of them read it. They learned of its content through the media. Republicans fear e-voting because it risks attracting young people who are traditionally pro-Democrats, while Democrats fear the introduction of the Internet into elections because it will first affect the privileged classes of society. But the subject remains in vogue... Setting up e-voting will take time and a lot of money. I don't think we should skip any steps: the current discussions are important and interesting, but we need to know how to avoid making announcements. What are the main difficulties? Setting up a reliable system, compatible with all platforms and operating systems is a stimulating challenge, but complex and costly. Setting up the system will not be much more expensive than electronic voting (voting managed by computer, but not via the Internet, editor's note) which already exists, but it is mainly the costs of training, maintenance and finally updating as technology advances that will be high. Is Internet voting desirable from all points of view? It all depends on what we want to do with it. If it is widely successful, it could favour direct democracy to the detriment of representative democracy. With the risk that e-voting will be used indiscriminately. On the other hand, e-voting would simplify things for the voter, especially if voting from home is allowed. But according to our study, this would not be the best solution, mainly for security reasons. It would have to be confined, for the time being, to polling stations. How would it then differ from electronic voting? E-voting would allow data to be stored better and on a larger scale. It would still be necessary for voters to trust this system upstream, which requires a person behind the servers who would have control over this virtual counting. And then there are the risks of hacking. We can protect ourselves against this by encrypting the data. Specialists recommend setting up an open-source system, i.e. one whose code would be accessible to everyone.

## ###ARTICLE\_START### ID:465

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Published last June, the report by the former MP for Nièvre, Christian Paul, who has since become Secretary of State for Overseas Territories, recommended the establishment of a co-regulation structure for the French Web. Today, this has been done with the Internet Rights Forum (FDI), inaugurated by the Prime Minister on Thursday, May 31. This is an association under the 1901 law, whose main ambition is to arbitrate legal conflicts related to the Internet. The Association of Internet Mediators (Adim), the French chapter of the Internet Society (ISOC), Wanadoo, the Cned (National Center for Distance Learning), academics, lawyers, and soon Sacem, Bouygues Telecom, Yahoo, Noos, IBM... The list of founders and members of the Internet Rights Forum looks impressive. As for Isabelle Falque-Pierrotin, its president, master of requests at the Council of State, "she is a great professional who has a perfect command of her file", readily acknowledges RPR MP Fabrice Martin-Lalande, vice-president of the study group on new information technologies. The forum creates a broad consensus among Web players. It must be said that its creator (the State) has managed to please both parties. A true discussion body, it meets on its own initiative, upon referral from the government, or administrative authorities such as the CSA, the Telecommunications Regulatory Authority (ART) or the CNIL (National Commission for Information Technology and Liberties). The debates can give rise to the formulation of "recommendations" on this or that legal question. The forum therefore satisfies the proponents of self-regulation, like most Internet user associations who do not want to see any authority interfere in their affairs. But also the supporters of a certain interventionism, such as the CSA, which intends to broaden its scope of action to multimedia. Despite this ambiguous status, most Internet players have high hopes for the Forum. "Self-regulation is a utopia, regulation by a decision-making authority, a horror, declares Me Bensoussan, who runs a firm specializing in new technologies. I consider this structure as a sort of observatory, a crucible that will perhaps allow the debate to be organized more calmly", on cases such as the sale of Nazi objects on Yahoo for example, or the site "Jeboycottedanone", which recently hit the headlines. Since the government has given the Forum a budget of around ten million francs, some could question its independence. "Its proximity to the State means that its recommendations will almost certainly be heard", even affirms Isabelle Falque-Pierrotin. According to Jacques Rosselin, CEO of Canalweb and founding member of the Forum, this suspicion is unfounded. "Each member will have to pay a contribution proportional to their turnover, which will be capped at around 100,000 francs," he specifies. This means that Yahoo and Wanadoo should have all their weight there. The members of the association do not doubt its effectiveness, however. "It is an advisory body like the European Commission on Human Rights," believes Sébastien Canevet, founding member of the forum and of Isoc, the first association representing Internet users. However, none of the signatory states have dared to defy its decisions." The forum will make itself heard through its site and traditional media such as the press. The fact remains that each of the participants intends to preach first and foremost for their own parish. According to Sébastien Canevet, "95% of Internet users use it for non-commercial purposes. I believe it is essential to help users find solutions in the event of conflicts with e-business operators." And to advocate, for example, the defense of users of free software such as Linux. "I have always spoken out against the control of the courts or the government over the Internet," he acknowledges. "But Isabelle Falque-Pierrotin's project seems rather worthy to me and I prefer to make myself heard from the inside rather than completely exclude myself from the debate." For Reine-Claude Mader, president of the association Consommation Logement et Cadre de Vie (CLCV): "We must first defend the rights of buyers on the Internet, which must be considered on an international scale." The Forum already met for the first time in May to define its first themes for reflection ("Internet and labor relations" and "Alternative methods of dispute resolution"). Its website (www.forumdinternet.org) is still incomplete, but its first works will be published online this summer, during the University of Communication in Hourtin. In the meantime, Internet users have the opportunity to express themselves on the online discussion forum, knowing that "the association does not have the vocation to pronounce on particular cases".

## ###ARTICLE\_START### ID:467

You are the inventor of Xanadu (1), "the original hypertext project", which you imagined in 1960. How did this idea of a universal library come about? I must have been five years old; on a boat with my grandfather, I let my hand float on the water. I thought about the water flowing between my fingers and the effects it had on me. That's when I became aware of the complexity of the world: how can I translate the effects of water on my hands? How can I describe the complexity of the universe expressed on such a tiny surface? Everything can be explained in a thousand ways. Like this glass, there are so many ways to talk about it... It all depends on the context. Any description contains a form of lie, because we miss thousands of possible connections. So I was very quickly struck by this complexity of things, this difficulty in grasping them in their entirety. So I never manage to finish a text, there are always other things to say. And every idea always tries to escape, to scatter in other directions: that is what "hypertext" is (2). Hypertext tends to represent my thoughts exactly. Because the text is something intrinsically sequential (3), imposed on everyone, but this sequentiality is not necessary in a network. Hypertext, on the contrary, is a non-sequential writing, a weaving of ideas. And that has nothing to do with computing... Except that the realization of such a project goes through computing... Now you are not an engineer and you have a rather atypical background... I love technologies like children love electric trains, or like men love women, and women love men. But I especially love literature, films, the media. My mother was an actress and my father was one of the first bosses of black and white television in the United States. As a child, often sitting next to her in the control room, I experienced the beginnings of the audiovisual industry live. I wanted to be a general intellectual, my greatest heroes were Orson Welles and Buckminster Fuller (4); I hesitated between cinema and books, between my artistic side and my more intellectual side, I changed subjects every week. Everyone thought I was crazy and wanted to slow me down. I wanted to speed things up, take notes on everything. But how to keep them, archive them, organize them? How to invent new subjects as quickly as I took notes? That was the focus of my research. Hence the idea of great memory. The Xanadu project is forty years old, and you have never finished it. Why? Xanadu was my first intuition, my first invention, and it is still relevant today. I wanted every character typed on a machine not to be lost because, if the machine breaks, I lose what I have written. The idea is there: to save all the successive sequences. It was necessary to be able to return to the previous version in the context in which it had been written, by creating a virtual version that points to all the successive sequences. That is the model. So simple... From there comes hypertext, "transclusion" (5)... So I imagined a system in which all the versions of the same text could interpenetrate, compare themselves. But how to reproduce this system so that it would be accessible to millions of people? For forty years, I tried to explain what structure Xanadu should have. I was confronted with jealousy, I was fully aware that I could understand things faster than most people... And I did not resign myself to social conformism. However, my family had not prepared me to face conflicts, to come up against people who disagree with you, for the simple reason that they do not want to be! Second problem: the complexity of my project compared to the skills of the technicians of the time. They only considered the world in terms of hierarchies. However, in the arts, in philosophy, in politics, everything is moving. Categories change, everything changes. Life is moving, it is this complexity that must be represented. However, hierarchies allow us to order and classify... The sequential hierarchy system is superficial. Even today, engineers continue on this path, with superficial structures, such as XML (6)... I began to hate categories very early on because they do not correspond to reality. Let's take the Battle of the Alamo: I have listed at least fifty facts related to the siege of Fort Alamo that escape in very different, and to say the least unexpected, directions. General Santa Anna, who commanded the assault, later became President of Mexico. Then, in 1855, driven out by the revolution, he fled to New York, taking with him a stock of 250 kg of chicle, the gum that Mexicans used to chew. Santa Anna thought he could perhaps sell it as a rubber substitute. One of the inventors of photography, Thomas Adams, who was in charge of the business, did not shine in this trade, when he suddenly had an epiphany. And he invented chewing gum... Hence the world-famous brand "Chicklet"... Where does this story begin, where does it end? It's endless. The categories are artificial. You can put them on paper, but they don't work. Even in middle school, I was bored with paper: it was too limited. Xanadu and this idea of giving universal access to all knowledge is very similar to the World Wide Web... What do you think of the Internet? I finally gave up on adapting Xanadu to the Internet. The Internet works on a hierarchical model, just like computers. A website is like a cave with flashing lights, it is the consequence of this cult of hierarchical directories, which have nothing in common with nature. But we can have universal alternative structures. An American scientific commission, the "Alternative Structures for the Computer Universe" is working on it. I can show you models, irrational structures, which are not hierarchical. And they are just as extensible. Today, computers simulate hierarchy and paper. Tim Berners-Lee, the father of the Web, modeled the existing hierarchical structures on the Net, and he gave them a paper appearance with HTML (7). Marc Andreessen, with Netscape, decorated them... The Internet is, certainly, a service rendered to everyone. But what a horrible format! The Internet still allows access to a mass of information... But it doesn't change the structure. It's a mask, a cosmetic. So the Macintosh comes from the Xerox research lab, at Xerox Parc in Palo Alto. Xerox was a paper company, a paper copy company; the engineers' goal was to simulate paper. I went to Xerox Parc in 1974-1975, and I advised them to change direction. They persisted in imitating paper: that was their "mission". The result was something that looked a lot like the Mac, and they called it the "Xerox Star", at $17,000 a unit! They couldn't sell it. And then Steve Jobs, the "creative rebel", came along: the Mac was presented to the world, and Jobs did a magnificent job of selling it by making everyone believe that it was a creative robot. Then Bill Gates imitated the Mac by keeping the same structure, the same standardized hierarchy. Do you think the Bible was the first hypertext? Maybe... I had to say that the different Bibles made hypertextual parallels. The Flood in Revelation can be compared to that of the Babylonian Book of Gilgamesh. It's the parallel structures that interest me. So many things can be compared. And there is so little in electronic documents to represent these connections... Xanadu and the systems that you work on include the calculation of copyright. You sensed the issue very early on... Indeed, I thought about copyright as early as the 60s. I understood right away that we were going to have to accommodate it. I believe that everything should be free on the Web, but... So we have to be able to reuse content in a legal and intelligent way, what I call "transedition". Hence my concern to create an application for browsers: the author gives his prior authorization, then everything that is captured is related to an original and to the successive revisions made by the author. By clicking on the quote, the reader goes directly to the source. I am also working on micropayment systems, so that authors can be paid: rights management is done at the level of the sentence, of the idea. The documents can be free or paid. The idea is that the content is available independently of the layout. What else are you working on? I am working on a project called "ZigZag". Contrary to computing based on hierarchical directories, ZigZag offers an alternative system. I imagined this model between 1981 and 1988 and I ended up applying it to a multidimensional family tree, in 1997. ZigZag is now an open source software in Finland. In August, a "Zigzag Session" is scheduled at the Hypertext Conference in Denmark. But those who feel comfortable in our current environment do not like this kind of model. It is a paradigm work: from the outside, it is wrong, and from the inside, it is right. I call it "ZigZag, a new computing paradigm". Do you have funding resources? A Japanese consortium supports us; there is a transediting server at Keio University, in Japan. But I would like to come to France, because the cultural interest is more important there than the computing aspect. In the United States, they only dream of making more and more money. For me, start-ups are flashy and stupid. I am from New York, but I live between my boat in Sausalito, in the San Francisco Bay, and Japan. Don't people think you are crazy? I predicted for years that millions of people around the world would one day use hypertext: I was considered crazy. Paranoia means believing things that no one else believes. And there are two ways to cure paranoia. The first is for the patient to change his way of thinking; the second is that it is up to others to change their way of thinking. I cannot bring myself to cure this second form of paranoia.... (1) Xanadu, named after the palace of the Mongol emperor Kublai Khan, near Beijing, a symbol of creativity in a work by the English poet Samuel Coleridge. (2) Ted Nelson coined the neologism in 1965. But the history of "hypertext" begins twenty years earlier, when an MIT professor of electrical engineering imagined "Memex", a system for storing and accessing documents that would work by associations, on the model of the brain. (3) Which is presented as an ordered, linear sequence. (4) Richard Buckminster Fuller (1895-1983), American architect, designer in particular of the Dymaxion, a 4D prefabricated house, and the Dymaxion Car, a rolling and flying car. (5) Method which consists of reusing text by integrating it into another text. (6) Heir to HTML, XML (eXtensible Markup Language), is a format for publishing content on the Web allowing data to be freely structured within tags. (7) Hypertext Mark Up Language, language for creating web pages and links.

## ###ARTICLE\_START### ID:468

In Seattle, in the northwest of the United States, a group of friends are patiently building their dream: a high-speed, wireless network, free and accessible from anywhere to anyone with a computer or a simple pocket organizer. In short, totally free and somewhat rebellious MATT WESTE RV ELT lives in a small building perched on a steep hill overlooking downtown and the port of Seattle. The apartment is nice, but he has decided to move because the windows only overlook the northwest corner of the city, which doesn't fit in with his plans: "I'm on the waiting list for the corner apartment. It faces north, west, and south, so my signal will cover more than half of Seattle. But if I stay here, I can still reach several fairly populated neighborhoods, so it's not too bad." Without waiting for his panoramic view, he is setting up the antennas for the first relay of his community wireless network in his living room. For years, Matt and his friend Steve Briggs, both Internet enthusiasts, have dreamed of creating the ideal local network from scratch: it would be free, free, and open to anyone with a computer; it would be run on the basis of volunteerism, mutual aid, and sharing; it would be very high-speed, to carry text, sound, and images in perfect quality; Above all, it would be wireless, both immaterial and omnipresent... However, as the years went by, the two friends realized that, thanks to the frenetic pace of innovation, their utopian and outsized project was becoming feasible. In the meantime, they had become engineers: Matt took care of the internal network of a software company, Steve worked for an Internet service provider. Today, at twenty-nine, they were perfectly at ease in the world of servers, transmitters and antennas. In September 2000, they decided to take the plunge and created a website to recruit volunteers. The welcome speech was austere: each would have to spend nearly $500 to equip themselves, then work voluntarily for weeks. However, the proposals are pouring in: "Seattle is not a place like the others. There is an exceptional concentration of network enthusiasts here. In addition, this port has a strong rebellious tradition. Since the 19th century, it has always been home to fairly radical alternative and union movements." Matt immediately sets the rules of the game. The network will simply be called Seattle Wireless. To build it, no existing infrastructure will be used, no sponsors or investors will be sought, no foundations or universities will be helped, no start-ups or associations will be created, and no local authorities will be notified: "We will be a group of friends, that's already a lot." A high-speed wireless network must rely on a set of fairly complex relays, the nodes, which will have to be built from scratch. Matt and Steve spend their evenings and weekends testing commercially available hardware, then taking it apart to adapt it to their needs: "All of our machines now run on free software and open standards. That's an important aspect of the project. The previous generation created the free software movement, which is now taking hold after years of living underground. Now we're starting the free network movement." Another important discovery: Seattle Wireless can be wild without being illegal, because one of the frequencies suitable for this use - 2.4 GHz - is not regulated by the federal authorities: "You can do whatever you want there, as long as you don't exceed a transmit power of 1 watt. And our equipment uses barely 20% of the authorized power, while providing a speed two hundred times higher than that of a conventional modem." That said, even if the law were to change, Steve would not give up: "Once Seattle Wireless is in place, it will be difficult to destroy, the police would have to spot us one by one. And besides, a node can be easily moved." In Matt's system, a node first communicates with the computers in the neighborhood, creating a mini-network covering a block. To connect, residents simply need to equip themselves with a wireless modem card: "They can connect whenever they want, at home with their PC, in the local restaurant with their laptop, in the street with their pocket organizer... They won't be asked for anything, no subscription or contribution of any kind." On the other hand, to bring the city-wide network to life, the different nodes must be interconnected, thanks to a special antenna, precisely adjusted and oriented: "The slightest obstacle disrupts our signal. For the connection to be effective, the antennas must be placed facing each other, in a direct line. A real headache. "So Steve lives in a building above the port, but his apartment overlooks the backyard: "My node allows me to go and work on the network in the bar on the corner of the street, but to communicate with the rest of the city, I'm going to have to be cunning. I'm going to put an antenna on the roof and hand out leaflets to my neighbors to tell them that they have a free wireless network. Most of them are young, they'll like it. Then, if the owner sees this wild antenna and wants to remove it, half of his tenants will be against him." At the beginning of 2001, Matt and Steve can count on more than 80 volunteers ready to host a node, and on about fifteen real specialists. Stuart, an expert in cryptography, is going to equip Seattle Wireless with an encryption system, which will allow users to protect the confidentiality of messages: "This will probably displease the local police and the FBI, who always want to monitor this kind of initiative. Come what may... " Ken, a burly man with brusque gestures, is the most political of the group: "I've always been drawn to left-wing activism or, more precisely, I've always had a strong anti-establishment sentiment. Seattle Wireless is the perfect opportunity to take action, because it involves technology, which is what I know best." Once equipped, the volunteers must explain on a website what they see from their windows or roofs, then locate each other with binoculars to form "pairs" whose antennas will face each other. To solve this complicated puzzle, the team receives help from an atypical volunteer, Ethan, twenty-six, a bike messenger for seven years: "I know Seattle inside out, I have a map of the city engraved in my head. I help Matt find the best locations. I also spotted discreet corners in office buildings to install antennas and servers, with the help of friends who work there." Ethan opens the project to other groups of local youth, who mainly frequent the networks for video games: "When they discover very high speed and especially when they understand that they can play anywhere, even in the street, they will no longer want anything else." If they wish, the node owners will offer additional services. Matt sets up a local e-mail system and Steve will offer his neighbors a gateway between Seattle Wireless and the Internet. They hope that others will imitate them, each in their own way: "In theory, we could even connect Seattle Wireless to paid services, provided that their owners build their own node and manage all local traffic for free. We'll see. "Among the volunteers, some live in strategic locations, which need to be equipped as a priority. Panos Krokos, a sailor and businessman of Greek origin, owns a house in a residential area, on the other side of Elliott Bay. From his windows, you can see the port, the buildings in the centre and, in the distance, the suburbs on the hills... Matt and Steve decide to install a super-relay there capable of providing a direct connection between several neighbourhoods. Taking advantage of a sunny Saturday afternoon, they arrive at Panos's house with a car full of tools and equipment. As promised, Panos has bought a one-metre-high antenna, which has to be fixed to the roof. The start of operations is a bit confusing: the roof is too smooth, the neighbour's tree too high... Change of tactics, the antenna will be fixed to a five-metre-long wooden rod, which will be attached to the balcony with wire. The wall then has to be drilled to pass the cable through, then the server installed in a corner of the living room where it won't be too much of a nuisance. THE neighbor, attracted by the commotion, comes to get the news. When he learns that he will have free access to a high-speed wireless network, he is at first incredulous, but Matt convinces him with a little demonstration. He is also told that his cordless phone may be subject to interference, but he comes to terms with it. Despite the falling night, Matt and Steve want to test their new relay without delay. The only way is to set up a temporary node somewhere on the other bank, in the city center. They walk along the docks looking for a suitable location and decide to set up in a fish restaurant on the pier. The owner, intrigued by the size of the antenna, has the maneuver explained to him. He doesn't understand everything, but he approves: in Seattle, high-tech is part of the landscape... In the end, the restaurant is not suitable. They have to do more climbing, to climb onto the roof of the new conference center built on the water's edge. The wind has picked up, the antenna adjustment is taking time, but suddenly Steve lets out a cry of victory: the signal is getting through, the port is conquered. Matt is already thinking about the next step: "At the top of Queen Ann, the highest hill in Seattle, there is an old school converted into apartments. You can see it from everywhere, it's the ideal relay. Among the tenants, there is a guy I vaguely know. I'm going to see him on Monday." Now, the volunteers want to meet in person: "All this is also an excuse to make new friends and party," Matt reminds us. He will take the opportunity to take stock and introduce the newcomers to node assembly techniques. The meeting is set for a Sunday afternoon at George's, a decidedly marginal musician and performing artist. George lives alone in a disused hangar that he has transformed into both a performance hall and an apartment. He doesn't know computers, but likes anything that is out of the ordinary. For the occasion, Matt has gathered enough equipment to fill Steve's old van. In front of about thirty people, he explains the project in simple terms, answers the most pointed questions, refutes objections, then sets up a temporary node in the hangar. The merely curious leave, baffled by the complexity of the enterprise. The experts play with the equipment, exchange addresses. In the lounge area of the hangar, Stuart's friend Kathleen explains to the undecided the reasons for his commitment: "People don't realize that in the networked society that's coming, the big telecoms groups will be the masters of the world, if we let them. I worked for one of them for three years, I saw their thirst for power, their ability to stifle anything that thwarts their plans or reduces their profits. With Seattle Wireless, we're going to take back some of the power they've seized." Ken is even more categorical: "We're the first to understand that wireless network technology can make the centralized systems of the telephone companies obsolete." Some visitors wonder, however, what the point of all this is. Matt interrupts them: "Applications should not be our business. Those who invented the Internet had absolutely no idea what the next generation would do with it. We are building an open, flexible, extensible network that will be used for everything. It would be a mistake to organize Seattle Wireless according to pre-programmed uses. Let's trust all the inhabitants, the artists, the businessmen, the children, to invent new uses, unthinkable on a classic network. We will be the first to be surprised." Now that the volunteers are becoming more autonomous, Matt and Steve already have a new dream: "We are in contact with about ten similar projects, in America, Australia, England. Nearby, in Vancouver, Canada, a team will soon be launched. Same thing in the south, in Portland, and also in San Francisco." Matt has started to think about ways to interconnect this string of free networks along the Pacific coast: "The problems to be solved are numerous, but none seem beyond our reach..."

## ###ARTICLE\_START### ID:469

Have computer scientists become the enemies of the major record labels? Last Friday, in front of a packed lecture hall at Stanford University (California), one of the great American experts in cryptography denounced censorship: "The music industry is trying to gain control over the content of our research, it's a dangerous precedent." This expert is called Edward Felten. Professor of computer science at the prestigious Princeton University (New Jersey), expert cited by the American government in its antitrust proceedings against Microsoft, the man is best known today for his troubles with the industrial consortium Secure Digital Music Initiative (SDMI). This consortium brings together a hundred content producers and manufacturers (Vivendi Universal, Microsoft, Sony, Apple, RealNetworks, AOL, ATT...) around "inviolable" protection technologies for digital works. But Felten has indeed succeeded in breaking them, rendering them inoperative. So far, nothing reprehensible. On September 15, 2000, the consortium itself challenged hackers by promising $10,000 (11,432 euros) to anyone who could defeat its music file locking systems. Thousands of code tinkerers entered the race, soon joined more unexpectedly by academics from Princeton, Rice University and experts from Xerox's Palo Alto Research Center (Parc). Intimidation. However, the SDMI had attached a few conditions to this competition. In particular, the "winner" would have to explain to the manufacturers how he had proceeded and commit to confidentiality. However, there was a problem: as an "independent candidate", Felten did not consider himself bound by these clauses and wanted to publish his work as "research" results. On April 26, the researcher appeared before an audience at the University of Pittsburgh to explain how his Princeton team had managed to unblock the SDMI systems. To everyone's surprise, Edward Felten stuck to a statement that is rather unusual at scientific conferences: "I am disappointed to announce that we will not be presenting the results of our work today. Court proceedings are costly and time-consuming, and their outcome uncertain. We have collectively decided not to expose ourselves, our employers, and the conference organizers to litigation at this time." The scientist's retreat was explained by a letter received from SDMI a few days earlier. It was signed by the secretary of the consortium, Matthew Oppenheim, and warned Edward Felten and his colleagues against the risks of "any illegal behavior or behavior likely to endanger the legitimate commercial interests" of the music industry, and invited the academic to collaborate with the consortium. Finally, it "strongly recommended that he not deliver his speech" at the conference if he wanted to avoid a lawsuit based on the American digital copyright law, the Digital Millennium Copyright Act. Defenders of freedom of expression, such as the Electronic Frontier Foundation (EFF), are stepping up to the plate, accusing representatives of the music industry of misusing copyright laws to stifle technological innovation. Other American universities are entering the debate and the affair is gradually taking on national proportions. Armada. "It's a logical confrontation between two worlds with opposing ethics that, until the arrival of the Internet, had had few opportunities to confront each other," says Bob Young, the boss of Red Hat (distributor of the "free" Linux software). For this entrepreneur, who has imposed a new business model, distributing free products by getting paid for the associated services, "computer scientists whose raison d'être is to innovate find themselves facing the record market, whose objective is to perpetuate control of an economy based solely on marketing concepts." Edward Felten, like his fellow researchers, would have preferred to publish his results rather than receive the $10,000. But not to the point of having to deal with the powerful armada of music publishing lawyers. "We have reliable information, which we obtained legally and which is of public interest. And we cannot give it away," lamented Edward Felten on Friday. No matter: a group of hackers took care of it. The information has recently been made available on the Cryptome website (1). This is not the final version, commented Felten, who regretted this publication made from documents submitted to peers under the seal of confidentiality. Nevertheless: the SDMI can get back to work to find "unbreakable" protection. (1) http://cryptome.org/sdmi- attack.htm

## ###ARTICLE\_START### ID:470

Air. But not wind. Thanks to the Internet, sounds are shaking up music, turning the industry upside down, and reinventing listening. Free software, which was thought to be reserved for Linux developers, is opening up to art (1). In France, the Net artist Antoine Moreau created the free art license last year, based on the notion of copyleft or "author's left", as opposed to copyright (2). On the other side of the Atlantic, the legendary Electronic Frontier Foundation (EFF), an association defending freedoms on the network, has just launched the Open Audio License: any musical work thus protected can be used, copied and modified freely, provided that the author is cited (3). A way of freeing the copy while protecting the creator from potential looters. Will the "open music license" become the "liberation tool" for musicians that the EFF envisions? Thanks to MP3, music has never circulated so much, despite the majors. Thanks to sampling and home studios, artists are lending themselves to cooperative work in the style of exquisite corpses, like the Collective Jukebox, a project by contemporary musician Jérôme Joy, which has been enriched since 1996 by the participation of authors from very diverse sound universes, from rap to classical (4). Free art and "open music" licenses, these new legal frameworks could accompany the extension of the field of collaborative musical experimentation. Moreover, three museums of contemporary and digital art, the SFMoma, the ZKM and the Walker Art Center, have not been mistaken, which have set up an observatory site for these new practices: Crossfade, Soundtravels on the Web (5). Highly recommended. (1) Linux is a competing operating system to Microsoft's Windows, and whose particularity is to be developed in an open way by thousands of computer scientists around the world. (2) The site artlibre.org has just been put online. (3) www.eff.org/IP/Open\_licenses/20010421\_eff \_oal\_1.0.html (4) jukebox.thing.net (5) crossfade.walkerart.org

## ###ARTICLE\_START### ID:471

LABOUR MARKET.<Reflection on the categories of the working population, nomenclatures and the use of the measurement of a phenomenon is the first stage in the theorisation of the latter. It is around this theme that the symposium "Construction and use of analysis categories" of the labour market will be held on 17 and 18 May in Marseille, which will include presentations on youth employment in four European countries, the choice of part-time work, "ethnic" classifications, etc. This event is organised by the Lamas-Institut du longitudinal (CNRS) and the Céreq. Information: 04-91-13-28-28; www.cereq.fr/cereq/Colloques/Colloques.htm ACCOUNTING. The 22nd congress of the French Accounting Association will be held from May 17 to 19 at the University of Metz, with the theme: "Companies without borders: what changes for accounting and organizational control". This meeting will be preceded by a day dedicated to "young researchers in accounting, management control and auditing". Information: 03-87-56-37-79; ems.univ-metz.fr/AFC2001 ENERGY. From May 14 to 20, the "Energy Days" launched by the Ministry of Economy, Finance and Industry will take place throughout France. As part of this event, visits to the heritage of energy installations (around 200 sites) will be organized. The Palais de la découverte in Paris is presenting, from May 14 to 18, a series of conferences around five themes: needs and resources, current energy production techniques and ongoing research, energy and the environment, the links between energy and the economy, and the energies of the future. On May 16, from 6 p.m. to 8 p.m., at the Café des sciences located in the Palais, the public and personalities will debate the subject; "Can we do without nuclear power in France?". Information: 01-40-74-81-97; www.palais-decouverte.fr LOCAL LIFE. The Ecole nationale supérieure des télécommunications de Bretagne (ENST) is organizing the third meetings on free software, in Brest, on May 16 and 17. The purpose of the event, which is aimed this year at local authorities, is to provide concrete solutions to local institutions and associations faced with difficult choices in terms of IT investment and to play a role of support and expertise thanks to the presence of experts and service providers. Information: 02-29-00-14-24; http://libre.enst-bretagne.fr/LibreEtVieLocale/

## ###ARTICLE\_START### ID:472

Université Laval and IBM announced yesterday the conclusion of a two-year partnership agreement that will make the Faculty of Science and Engineering a Linux expertise centre. The new platform that will be installed will be used for teaching and research purposes. Linux is an open-source operating system that is currently experiencing the fastest growth in the world. JD

## ###ARTICLE\_START### ID:473

As the Web grows (550 billion pages, including documents automatically generated from databases), searching for information becomes more and more random. That's the bad news. The good news is that search tools are evolving, both in their "sweeping" technique and in their ergonomics. The goal is no longer exhaustiveness but more intuitive operation. The two innovations presented opposite are the most recent examples. Cooperation. Another, more radical, path is the exploitation of the "peer to peer" model, the one that made Napster and Gnutella so successful. If all the Internet users in the world are willing to pool the contents of their hard drives, these more or less biased intermediaries that are search engines will no longer be necessary. All that will be needed is to send a request to the connected machines, which will be processed automatically by ad hoc software. This cooperative search works in real time: no more "dead" links and unfindable pages. When Altavista asks for two weeks to go around the Web, the "peer-to-peer" system reacts in a few seconds. In addition, it is capable of exploring the depths of the Web, where most databases are hidden. New. A sufficiently attractive prospect for Sun Microsystem to buy Gene Kan's company InfraSearch, one of the pioneers of cooperative research, last March. Its software should be available this summer. At the end of May, the French company Amoweba will offer free peer-to-peer software (Human Link) allowing the exchange of addresses referenced in its "favorites". "If we manage to attract 100,000 Internet users, our network will index approximately 500 million Web pages in only two months," says Yves Simon, vice-president of Amoweba. Finally, a group (Gpulp) is working on extending the concepts of Gnutella to generalized research. Its software will be available in open source.

## ###ARTICLE\_START### ID:474

What is the point of trying to install the Internet in Third World countries, already overwhelmed by issues of malnutrition and public health? This is the paradox that non-governmental organizations (NGOs) face when they consider the development of new technologies in the Southern Hemisphere. Madagascar, whose gross national product per capita does not exceed 2 dollars, is a perfect illustration of this problem. However, the Intergovernmental Agency of the Francophonie (AIF) is carrying out several projects there aimed at promoting what it considers to be a new development tool. A dozen children of all ages are playing basketball against old rusty backboards. A few meters away, between the boarding school and the administrative buildings, there is a lot of fun in the swimming pool, taking advantage of the last days of good weather before the end of the Easter holidays. We are at the Ampefiloha Sports Academy, in the center of Tananarive, the capital of Madagascar. During the school term, almost all of the city's high school students parade here as part of their physical education classes. This high attendance was decisive for the establishment at the academy of one of the first free cybercafés in the country, or Paje (Access Point to Information Highways for Youth). And Sedaly Damy, Director General of Youth at the Ministry of Youth and Sports, is not a little proud to show it around. In a small room with free access, five brand new computers are lined up. On the wall, posters on AIDS prevention donated by the Nord-Picardie Region. The installation, like 37 other Paje around the world, was financed to the tune of 150,000 francs by the AIF, which carries out development cooperation actions on five continents. "This grant allowed the purchase of equipment, the training of facilitators and the financing of communication costs for a year," explains Françoise Paul-Piquet, in charge of the file at the AIF. To access it, young people in Tananarive must pay an annual fee of 50,000 Malagasy francs (around 50 FF). "We sometimes have trouble convincing parents to pay such a sum," notes Sedaly Damy. "Here, the average salary is 250 FF, so families often have other priorities." A rate that is nevertheless unbeatable, compared to the real cost of an Internet connection in the country. In the formal sector, as they say here, a computer costs around 10,000 francs. However, they can be found on the black market for between 5,000 and 7,000 francs. The rates charged by the five local access providers are prohibitive: 50 cents per minute, when the latest subscription offered in France is capped at 14 cents per minute. In the more or less legal "cybercafé-fax-photocopier" that have sprung up all over the city, the bill often goes up to one franc per minute. It must be said that the costs charged by the national telephone operator to access providers remain very high, since the deployment of telephone lines in the country has not yet reached its yield threshold. Only Madagascar's elite can really access the Web, most often for professional purposes. Local operators estimate the total number of Web subscriptions at 13,000, for a population of fifteen million inhabitants. The young people who attend the city's Paje - there is a second one in the private college of Ambinintsoa - are therefore privileged. "Before coming here, I thought the Internet was a machine!" says a student. Even before access to the Web, the Paje allow people to practice working on a computer. Michaële is a volunteer facilitator at the Paje of the sports academy. "I have a BTS in computer science. Yet we had almost no computers in high school, and the teaching remained very theoretical. Thanks to the Paje machines, I was able to put this knowledge into practice." The equipment is often requisitioned for the needs of the establishments that host them. "We were able to computerize our administrative services and our students' school records," says the director of the Ambinintsoa middle school. Even the middle school pastor sees it as "a formidable tool for the work of the church"... In the West, the documentary function of the Internet complements traditional resources, such as libraries or research centers. But in Tananarive, it is very difficult to find a book that was published before the 1990s. Suffice to say that the legitimacy of the Web in terms of information is indisputable, especially for third-cycle students. Even students in vocational courses find what they are looking for there. For example, Tanjona, 17, attends a car mechanics training center funded by the manufacturers Mitsubishi and Suzuki. "Later, I would like to set up my own business. So I go on the Internet to study the engines of other brands, Renault, Ford or Mercedes." Incidentally, he is also a presenter at Paje, and does not completely rule out the possibility of one day becoming a "computer engineer". An ambition that is not fanciful: in Madagascar, recruitment is mainly based on skills, and computer scientists are highly sought after. Statistics compiled worldwide show an average of one Internet subscription for every 9,000 inhabitants. By comparison, the development of new technologies in Madagascar demonstrates real dynamism. "We will not be the illiterates of the third millennium," solemnly declares the rector of the University of Tananarive, which, in partnership with the local Polytechnic School, offers several advanced diplomas in computer science and new technologies. The capital's computer scientists, grouped into various associations, share their experiences to build up genuine local expertise. Thus, the Malagasy Association of Linux Users (Amul) hosts an "Install Party" every Wednesday evening, to allow everyone to familiarize themselves with free software. The President of the Republic even wanted all the country's prefectures and sub-prefectures to be equipped with computers. But "there is no government structure responsible for new technologies," observes a specialist. Even if we can't really talk about censorship, the government does not look favorably on the creation of a national information network." In the minds of the happy users of the Paje to the columns of the national newspapers, the Internet unanimously appears as a source of unexpected wealth. However, the profitability of this new sector remains problematic. Indeed, the island does not have a payment card in national currency, like our credit card. E-commerce therefore remains out of reach, even if tourist hotels have seen their reservations increase through e-mail. Some local start-ups already operate as subcontractors for foreign companies, but the volume of work is conditioned by the good health of the new economy on an international scale, whose recent crashes have proven the fragility. The Malagasy Web is not ready to feed the thousands of hungry people in the country. The latter arouses about the same enthusiasm as the first steps of the French Web, four or five years ago: it is without a doubt a formidable playground for adventure and play, the maps of which even the most passionate do not yet master... Offer a zebu to your friends A French airplane pilot, Stéphane Geay, established in Madagascar, is the happy boss of the "Zebu Overseas Bank". This company, which is very serious despite its initials that are at least unexpected, invites Internet users to invest in a zebu in Madagascar, the equivalent of our ox. Indeed, the PEZ (Plan Epargne Zebu) is an investment that pays off. In exchange for 1,200 FF, the account holder is given a carefully selected animal from local markets, whose photo he can view on the Internet. The animal is then entrusted to a Malagasy farmer who, for a monthly rent of 10 FF, can use it to produce milk or plough his land. After two years, the owner's stake will have increased by 7%. He is then free to come and collect his property on site, or to make his investment grow even more. The formula has been so successful that the site is currently out of orders. www.zob.org

## ###ARTICLE\_START### ID:475

New York — Microsoft Corp. has taken aim at its Linux competitor and software developers like it who publicly release the source code of their products, saying the practice threatens intellectual property rights. In a speech at New York University, Craig Mundie, the company's vice president, said the "open source" philosophy is unworkable for companies like Microsoft and advocated the company's more limited "shared source" approach. "Fundamentally, what we do is protect our intellectual property," he said. Open source, a practice that originated in the scientific and academic communities, involves releasing the entire computer instructions that make up an application. The application remains copyrighted to prevent commercial exploitation by a competitor. In the early 1990s, it spread to the professional world through Web site management software and as a major alternative to Microsoft's practices, which jealously guard Windows code. Mundie announced Thursday the launch of a "source sharing" policy that consists of delivering Windows source code to developers, to allow them to adapt their work and improve the product, while preserving intact the company's intellectual property rights over its property. Beginning in 1991, he continued, Microsoft provided its source code to academics, then to its closest partners. To date, more than five million programmers have access to it, he said. In the coming months, the Redmond company will extend this practice to other countries and to independent software developers, he assured. In his speech, billed as a major event in Microsoft's history, Mundie broke with the diplomatic language that has been used so far about open source, emphasizing its fragility and imperfections that jeopardize the industry's property rights and economic future. "We recognize that the open source movement has some benefits, including community building, debugging and improving information. But it also represents a step backward for operating systems," he said, noting the potential dangers of releasing source code in terms of compatibility and instability. In recent years, the movement has resonated with millions of developers who have seen it as a way to work outside Microsoft's orbit. Red Hat Inc., VA Linux and Caldera Systems Inc. are among the movement's most vocal supporters. IBM, the world's largest computer maker, has been a major financial backer since 1999, and software maker Oracle Corp. has also joined the movement. Microsoft, on the other hand, has always seen it as a challenge to its way of thinking about the business. "It seems to me that Microsoft is casting an unfounded cloud of suspicion over the whole open-source software business," says Bryan Sparks, CEO of Lineo, a Linux-based software developer. "There are ways to protect intellectual property through proprietary application drivers and extensions to Linux. Open-source developers have established a way to make proprietary software and open-source software coexist," he says.

## ###ARTICLE\_START### ID:476

Nearly 12 billion euros, or some 78 billion francs, should be spent this year by the French state and local authorities to deploy new technologies in the administration. This is what is revealed by a study to be published today by Kable, an independent European firm specializing in e-government, that is to say the transformation of public administrations towards the Internet. For comparison, the fifteen countries of the European Union should spend a total of 60.7 billion euros (400 billion francs) over the same period, according to this study. According to Kable, French investment places France in second place among the biggest spenders in this area, behind the British budget and neck and neck with that of Germany... These colossal figures are not really contested by the budget directorate, which nevertheless admits that "the reality must be lower". In reality, the budget only communicates on the amounts invested by the State, excluding Defense, social security organizations and local authorities. This year, investments concerning what is now commonly called e-government should reach 5.6 billion francs, compared to 5 billion last year. That's for the figures. As for the objectives, they are of two kinds. The introduction of new technologies should make it possible to bring closer and improve relations between the State and its citizens. Examples are multiplying. The Internet tool thus allows citizens today to declare their income tax online. For the public authorities, these new technologies also participate in the natural modernization of administrations. The speech in favor of the information society given in Hourtin in September 1997 by Lionel Jospin played a decisive role in this sense. It constitutes the kickoff for the mobilization of French politicians. In its wake, a guidance report was produced, called the Government Action Programme to Prepare France's Entry into the Information Society (PAGSI). Then, two interministerial committees, one dedicated to the development of the information society, the other to the necessary reform of the State that results from it, were created. They meet twice a year. To this must be added the numerous missions, commissions and other committees devoted to the subject. "Not to recognize that France has spared no effort to move into the digital age would be a mistake," emphasizes a European expert. "But we cannot say either that it has been able to implement a real strategy in this area... Linking institutional sites together by offering a few online services is not enough to constitute a digital administration. France must offer its Internet citizens a tool that meets the specific needs of each." The lack of a French strategy, which has been singled out, seems to be the main obstacle to a rapid deployment of new technologies in the administration. Bernard Branche, from the CGT, does not rule out that this slowness benefits the government. Indeed, new technologies are supposed to make it possible to achieve productivity gains on condition that work is reorganized, or even to eliminate certain positions. To the extent that this type of initiative is politically delicate, it is not impossible that "the government is banking on the retirement of half of civil servants over the next ten years to gradually set up a virtual administration," he imagines. The transformation of the administration towards digital, which has just begun in France (see below), is illustrated for the French mainly by the Internet portal of the administration (www.service-public.fr). Launched last November, it brings together 2,600 sites including the 1,100 sites opened by the State administrations. The fact remains that, "of the 840 administrative forms currently available online, only a hundred or so are printable today and around thirty remote procedures are accessible to French citizens directly online," explains Thierry Carcenac. This PS MP from Tarn, author of a recent report entitled "For a citizen electronic administration" presented to the Prime Minister on April 19, makes 57 practical proposals to adapt the French public service to the Internet era. He recognizes that there is still a long way to go to achieve an "all-digital" administration in France. "The General Directorate of Taxes still has an IT system that is not compatible with that of the Public Treasury," he says ironically. The challenge of an electronic administration is all the more difficult to meet in our country because it implies both a reorganization of the administration towards the needs of its users and a change in mentality on the part of citizens."

## ###ARTICLE\_START### ID:477

FIVE SMALL Internet service providers, all from the Parisian alternative and associative movement, have joined forces to carry out an unprecedented enterprise in France: the creation of an independent and non-commercial telecom operator, called Gitoyen (Citizen Economic Interest Group), which will offer very low-cost high-speed Internet access, "with a non-profit perspective". The main initiator of the operation is Valentin Lacambre, former boss of the free hosting service Altern, which sank in June 2000 after years of fighting for freedom of expression on the Net. In the meantime, he had founded the company Gandi, which sells .com, .net and .org domain names worldwide, on an equal footing with the major multinational communications companies (Le Monde, June 14, 2000). At the beginning of 2001, Mr. Lacambre embarked on an adventure of a completely different magnitude. First, he joined forces with four non-commercial access providers: FDN, a haven for die-hard technophiles; Globalnet, which works for NGOs; Netaktiv, a structure close to the PCF; and Placenet, which emerged from the free software movement. Together, they decided to take advantage of deregulation to set up their own access infrastructure: "Initially, our approach was defensive. To survive, the associative providers absolutely had to join forces. But we quickly realized that by becoming our own operator, we were changing scale and status. Everything became possible, and relationships with public authorities and other operators were no longer the same." From February onwards, Gitoyen got busy: it was necessary to rent technical premises, obtain equipment, and above all fill out masses of administrative forms to obtain all the necessary approvals and authorizations. At the end of April, they see the light at the end of the tunnel: "We will be able to install our server centers in Paris and have trenches dug in the sidewalks to run our cables." At the same time, Gitoyen is making itself known to its potential users: "For example, municipalities will soon have the right to provide Internet access through a managed operator. We are going to make them unbeatable offers. Our goal will really be to serve the population. We are also going to explain to local elected officials, schools, associations, SMEs, the reality of the telecoms market, while the big groups tell them nonsense."

## ###ARTICLE\_START### ID:478

We can already see some people yawning, the May 1st demonstration, this thing for old archeo-commie workers, how much do I have to click, me. So yes, it's true, the union sites are to cry, with a debauchery of pages each uglier than the last and targeted information that will only interest the diehards. With the exception of the anarchists of the CNT, who are committed to free software (with a completely "free" site, tools and navigation included), and the Confédération paysanne, which authorizes militant action at 2 F (the leaflet) or 100 F (the T-shirt) (1). The militant Internet user will find the spirit of the "red" May 1st elsewhere. On the Attac portal in particular, which is intended to be "a working tool on the themes of the association's platform rather than a showcase", according to Laurent Jesover, its manager: 32,000 subscribers receive the anti-globalization letter by e-mail, and the portal (around twenty national sites and forty local ones) records 2.7 million monthly hits from 112 countries. A score to make you pale. And since network activism also leads to reality, Attac is organizing a "May 1st New Year's Eve", which will end with a throwing of flowers into the Seine for the "unknown unemployed" (from Danone and/or Marks and Spencer) (2). Another way to cybercelebrate work, by joining the action of the RTMark collective in Manhattan, Hollywood, Portland, Raleigh, London and Paris. The target? Nike. To denounce the working conditions in its factories, activists will encourage the brand's employees to place flyers in shoe boxes (3). And if this May 1st continues to leave you cold, there is still the option of letting off steam: with the "stupid proletarian games", you can shoot the boss, dress "Superprolo" or throw a Molotov cocktail (4). For real. (1) CFDT: www.cfdt.fr CGT: www.cgt.fr CNT: www.cnt-f.org Force ouvrière: www.force-ouvriere.fr Confédération paysanne: www.confederationpaysanne.fr Sud has no site... (2) attac.org (3) Available online at www.rtmark.com (4) no1else.free.fr/no1else. html

## ###ARTICLE\_START### ID:479

The Internet, a gateway of choice between the State and its citizens? This is what the report by PS MP Thierry Carcenac, submitted to the Prime Minister on Thursday, suggests, providing 57 proposals for achieving a "citizen electronic administration". The report suggests that the State, in the long term, open a gigantic single electronic counter. And thus transform itself into an A to C (pronounced hétouci) player, an acronym built on the B to C (business to consumer) model, a fashionable acronym for e-commerce. A to C refers to electronic "transactions" between the administration and the citizen and proves in passing that the State is not left behind in the field of bogus jargon. The report specifies that before becoming completely electronic, the administration must continue the efforts made since 1998: firstly, it has created information portals (the administration has around 3,400 sites) accessible to all. It then increased the number of forms to download from the Web (900 are currently digitized) but must expand its range of 100% online procedures and therefore without postal delivery, limited for the moment to tax returns or requests for criminal records. "We hope that this report will give a little boost to administrations that have not yet started their transformation," says Jacques-François Marchandise, one of the managers of the Next Generation Internet Foundation, an association supported by the government. Political issues. In fact, the report does not limit itself to establishing a list of services to offer Internet users. "I learned that behind the technical questions lie real political issues," emphasizes the Tarn MP, author of the report. Such as the choice of whether or not to impose free software in the administration, these programs whose source codes, the equivalent of manufacturing secrets, are accessible to all. The report rejects the idea of proposing an overly strict law, considering that it is enough to stick to "recommendations" to avoid the Microsoft monoculture within the State. Interoperability between the computer systems of the different ministries also figures prominently in the proposals that can be implemented in the short term. This would allow the user to avoid going back and forth between several administrations to create a file. The report also recommends the establishment of a public State directory, accessible online, containing all the archiving structures of the administrations. Even more complex: the report considers that electronic administration requires a "transformation of the organization of the administration". Exit the "silo" bureaucracy, Thierry Carcenac calls for a "networked administration". Training. Thus he insists on strengthening the workforce dedicated to e-government. "Today, the training of people and especially their recruitment are one of the major problems we are facing," he says. In his conclusion, he goes so far as to emphasize that the "management model" in the administration must "radically change" and move from "authoritarian leadership" to "conductor-type authority." Proof that e-administration, beyond its high-tech showcase aspect, is seen above all as a lever for state reform. It is not certain that electronic civil servants will applaud. A forum has been opened: www.internet.gouv.fr/francais/interactivite/admelec.htm

## ###ARTICLE\_START### ID:480

THREE YEARS after the launch in January 1998 of the government action programme for the information society (Parsi), electronic administration has become a reality. However, it is only at the beginning of the process that will make it "citizen-friendly", according to Thierry Carcenac, deputy (PS) and president of the Tarn general council, author of a report on this issue submitted to Lionel Jospin on Thursday 19 April. A first step has been taken with the opening of more than 3,000 public websites and the development of e-mail and information tools. Today, the aim is to go beyond this first wave of websites, which give a large part to informative content, and to manage to provide real service spaces dedicated to different types of users: to evolve towards the concept of "A to C" (administration towards the citizen), just as the business world has evolved towards that of "B to C" (business to consumer). "PROFOUND DEVELOPMENTS" Offering the possibility of downloading a form from a public site is only one step in this new relationship. The long-term objective is that the user can not only return his form electronically, but that he has access, via the Internet, to all the data linked to the form, regardless of the administration that holds them, and that he only has to add the data from private actors (employer, bank, etc.). "Crucial, this step will be difficult to implement, Mr. Carcenac does not hide, because it supposes an overhaul of administrative processes. And this implies profound changes in the internal organization: information sharing procedures, hierarchical decision-making processes, adaptation of legislation, etc. " To implement this "new dynamic", Mr. Carcenac suggests extending the Parsi with a new unified government program for the birth of an electronic citizen administration, the "Pugnace", which he breaks down into around fifty concrete proposals. In particular, he advocates for professionalizing the management of IT personnel in government departments, with the creation of an inter-ministerial body of IT specialists, so that IT is recognized as a profession in its own right by the government. Mr. Carcenac also advocates wider use of free software and stresses the need to use IT solutions that are compatible with Internet standards and to make public IT systems interoperable with each other. Finally, noting that many countries have set up a ministry responsible for electronic administration, Mr. Carcenac proposes entrusting the orchestration of this new dynamic to the minister responsible for state reform, renamed the minister for civil service, administration and state reform.

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My mother, a wise woman if ever there was one, has always recommended that I read the small print at the bottom of a contract. Of course, as a dim-witted person as I am, I sometimes... well, often forget this advice, which is nevertheless very wise. I am sure that if she had had a Hotmail account, she would have highlighted the somewhat bizarre terms of the contract in bold yellow strokes. It was the English electronic daily The Register (www.theregister.co.uk ) that revealed the whole affair a few days ago. Read carefully the following text (free translation from the Linuxfr.org site), which explains one of the conditions of the contract between an Internet user and Microsoft (Hotmail/Passport) when the latter subscribes to the Hotmail messaging service through the Passport registration service: "By posting messages, uploading files to a server, entering data, providing feedback or suggestions or engaging in any other form of communication with or through the Passport Web site, you represent and warrant that you have the right to do so and you hereby authorize Microsoft and its affiliates to: use, modify, copy, distribute, transmit, publicly perform, perform, reproduce, publish, sublicense, transfer or sell this communication or to create derivative works from it. "Sublicense to third parties the unlimited right to exercise any of the aforementioned rights that are granted. Publish your name as part of this communication. The foregoing rights include the right to exploit, in any country, any proprietary rights in the communication, including without limitation, rights under copyright, trademark, and patent laws. You will not be paid any fees for Microsoft's use of any material contained in the communication. Microsoft is not required to post or use the material you provide and may choose to remove such material at any time." What should we read behind this legal jargon? Quite simply, by sending a document, software that you have written, a thesis, Microsoft gives itself the right to appropriate the content of said submission and to use it as it sees fit. Without paying you any royalties. Obviously, it seems that Microsoft never intended to seize the fruits of your labor. But, one fact remains, even if Uncle Bill's firm does not engage in data piracy, legally, it could have seized it. Since the news came out, the friends of Redmond, where Microsoft is headquartered, have reacted and a new policy that is more flexible and less permissive will soon replace the old one. However, Microsoft wanted to be the champion of privacy, by launching its Internet Explorer browser later this year 6.0, which was intended to be more respectful of users, by accomplishing, among other things, a more rigorous management of "cookies", this virtual pastry that is sometimes too talkative. In any case, like many Internet users, I will have no choice but to pay much more attention to the "special conditions" of companies wanting me to use their service, free or not. So I will do what my good old mother always told me to do: read the fine print before signing. I promise, mom. Live from Massachusetts What extraordinary news from the Massachusetts Institute of Technology (MIT)! In a move that took everyone by surprise, this house of higher learning will make available on the Internet within two years, all the content of more than 500 courses given at this noble establishment. This content, which will include not only professors' notes, but also those of students, will be offered to all educational institutions around the world so that they can benefit from the wealth of knowledge amassed by MIT. Based on the OpenSource model, this initiative will be called OpenCourseWare and there is no doubt that it will have offspring all around the planet. Let us hope that our own institutions will take advantage of this opportunity to spread their knowledge and that this knowledge can benefit developing countries for example. (http://web.mit.edu.acces.bibl.ulaval.ca/newsoffi ce/nr/2001/ocw.html dumais@Mlink.NET

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While the free music file exchange service has been ordered to block access to several thousand titles that transit on its website, its users are starting to turn to more or less comparable alternatives. But the record industry has not said its last word. Will the major maneuvers of the American justice system around Napster be enough to put an end to the free exchange of music files on the Internet? Nothing is less certain. Prosecuted for infringement of copyright legislation by the major record companies, Napster has been ordered to block its users from accessing 135,000 titles, protected by copyright, listed by the Phonographic Industry Association of America (RIAA). This list only represents a part of the repertoire available on the site. "You will always be able to exchange the music that we have not been asked to block," Napster's managers were quick to explain to their users. To make matters worse, the titles are not always easy to identify. Not to mention the tricks that smart people have found to escape electronic filters, the names of artists or their works are often altered by spelling mistakes. For example, Elton John's song Circle of Life is available, among other variations, under the names Circle Off Life or Circle of Live. But there is worse: the announcement of the implementation of a filtering system has sparked a rush of Internet users, eager to recover as many titles as possible while there is still time. In one day, and on just one of Napster's 80 servers, 11,000 Internet users have exchanged 2.2 million songs... In any case, Napster's current formula, a free fair of musical works, should disappear this summer since its CEO, Shawn Fanning, has announced that the exchange of songs will be paid from July 1st, for a subscription that will allow royalties to be paid to the artists. It remains to be seen what attitude Napster regulars will adopt. Of the nearly 5 million European users counted by the Jupiter MMXI research firm last January, half are relatively older Internet users who have enough income to pay the subscription fee. The question arises, however, for the other half of Napster users, made up of young people under 24 who often have modest incomes. Heavy consumers of online music, they are the ones who will be most affected by the abandonment of the free model for a paid model. "The paid subscription to Napster will probably be accepted by a large part of current European users," estimates Mark Mulligan, analyst at Jupiter MMXI, "but we think that Napster should keep a free offer so as not to lose its young users, even if its quality is inferior to that of the paid offer in terms of sound, available content or features." An opinion shared by Philippe Astor, head of Music.com for France: "A whole generation of young people have discovered music for free on the Internet. We need to find ways to keep them as music consumers: for example, offering free downloads of tracks as a promotional measure or making this offer conditional on the provision of information that can be used in marketing operations." In fact, the proceedings brought against Napster only serve to divert the problem. Because Internet users who have become accustomed to exchanging music files for free are now turning to other sites that are likely to offer the same service. This is the case, for example, with the OpenNap network, a set of independent servers that is said to surpass Napster in terms of the quantity of files available, which can be accessed with downloadable software such as Napigator, FileNavigator or WinMX. But the largest file-sharing network is probably still Gnutella. Inspired by the free software movement, it is nevertheless much less easy to use than Napster. According to Jupiter's latest audience measurements, the Bearshare software site, which provides access to the decentralized Gnutella service, received 520,000 visitors during the month of March, while the number of Napster users fell by 5%, from 15.2 million in February 2001 to 12.1 million in March. "These networks are much more difficult to prosecute than Napster," says Philippe Astor. "They don't have a centralized server and are not commercial entities. The only way for the music industry to reach them is to attack the access providers or operators that host them." This recourse is all the more hypothetical since other solutions continue to flourish, such as downloading music files via discussion forums or systems that rely on real-time messaging. And then there is the case of servers that, installed abroad, escape American jurisdiction. The most famous is iMesh, based in Israel, whose traffic is increasing day by day. Comparable to Napster in its operation, this service also allows the exchange of other types of files (images, video sequences, programs) and the resumption of downloading in the event of an interruption. Moreover, scalded by the Napster experience, a certain number of servers are moving abroad beyond the reach of American laws. The manager of the Fairtunes.com site, which collects donations for artists, has even launched a subscription to rent a server on a military vessel in international waters, in order to open a service comparable to Napster "out of reach of the RIAA". "I don't think that pirate alternatives to Napster can prevail," judges Philippe Astor: "they are aimed at insiders and their quality of service is clearly inferior. » But the Napster model is starting to attract imitators who are playing the legality card, like Flycode, which specializes in images and video sequences, or Jackalope, which streams tracks, that is to say continuously, a bit like on a radio station. This free service is used to promote albums, according to its managers who want to encourage Internet users to buy tracks online. The major record companies, although in court against Napster, have not given up on imitating their adversary. While Bertelsmann has invested in the site's capital to bring it back on the path to legality and use it as a commercial platform, Universal Music and Sony are preparing to launch Duet, an online music streaming service by subscription. RealNetworks has also joined forces with the three other major record companies, Warner Music, BMG and EMI, to develop a subscription music service called Musicnet and a competitor to Duet. "The majors are trying to capture Napster's audience, but it's not all won yet," observes Philippe Astor. "How are they going to encourage Internet users to pay for what they were getting for free? And how are online music consumers going to find their way around? They're looking for Madonna or Eminem tracks, not tracks from the Universal or Sony Music catalog." While it ultimately helped accelerate the Internet strategy of the record industry, the Napster affair also partly clarified the issue of music piracy on the Internet: most of the occasional pirate sites have in fact disappeared in favor of this central server. And then, it highlighted the fact that 60 million people in the world were big music fans...

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Still isolated against the steamroller of Windows and PCs, Apple is attempting another coup by launching, on Saturday, March 24, a new operating system called OS X. The heart of Apple machines will now run in a more stable and open Unix environment. About 70,000 developers worldwide have already joined this new system, which is seen as a rival to Windows. One of two things. Either Saturday, March 24, 2001 will remain as the symbolic date of a new beginning for personal computing, perhaps as important as the launch of Windows by Microsoft in the early 1990s. Or it will simply mark Apple's last attempt to survive in a world dominated by the alliance of Microsoft software and Intel chips. Whatever the outcome, the initiative taken by Apple is not lacking in panache. After successfully returning to the consumer market in 1998 with the iMac, Apple launched an entirely new operating system on Saturday, called OS X ("OS ten"), wiping the slate clean of a glorious past: the brand with the apple is behind many innovations in personal computing (graphical interface, drop-down menus, mouse, firewire connection, etc.). While its rival Microsoft is multiplying updates to its system, Apple has chosen to start over with an entirely new architecture. And, to do so, to embrace the world of free software, a strategic turnaround that should allow it to rally thousands of developers around the world. COMPATIBLE WITH UNIX OS X is based on a program compatible with Unix, the operating system used for many corporate servers and which gave birth to Linux, the emblem of free software. While Mac OS X will cost 990 francs in France, all the programming codes will be available to everyone. The new system retains the user-friendliness of Apple's previous software, while adding many graphic and technical innovations. The ability to watch a video online while using another application, or to burn a CD without blocking other functions demonstrate the power of the system, which allocates a specific portion of memory to each application. The Unix architecture also eliminates program and machine freezes, incidents that were common until now in personal computing. Apple's gamble is risky, however. With 4% of the personal computer market, Apple will have a hard time seriously denting Microsoft's monopoly with the general public and businesses. It can, however, continue to attract well-identified targets (general public, publishing, design, education). But the first buyers risk being disappointed by the first versions of this operating system. While Apple wants to make its computers multimedia platforms allowing you to surf the Internet, download music, burn, and edit video films, several of Apple's new flagship software are missing from the new system. Worse, it does not yet allow you to use all peripherals (printers, burners, webcam). According to our information, update programs should be distributed as early as next week. Fortunately, OS X gives the possibility of switching the machine to the old working environment, a saving but frustrating option. This is probably the reason why Apple decided to wait until the summer to pre-install OS X on its new machines.

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Rio, from our correspondent. The Morro de São Carlos favela in the centre of Rio is a cluster of houses, most of them made of brick, punctuated by three narrow and steep streets. It is overlooked by the Santo Antonio church. An annex to the church houses a computer and citizenship school: an initiative of the Committee for the Democratisation of Computer Science. The CDI is an NGO founded in 1993 by Rodrigo Baggio. At 31, he is already covered in international awards, in the "leader of the future" category (Time magazine, World Economic Forum, World Bank, etc.). Thanks to him, 208 computer schools have been opened in 17 states in Brazil, all located in disadvantaged neighbourhoods. "We are the only ones offering computer training to the 60,000 residents of Morro de São Carlos," explains Maria da Paz, the facilitator of the Santo Antonio church who runs the school as a volunteer. The classroom is tiny. So small that Jaidir, a portly man in charge of the lesson that day, can barely move between the six children, aged 8 to 11, sitting quietly in front of the computers. Four boys and two girls are taking advantage of the last days of vacation to create little comics. On the classroom board, a list of work topics: ozone layer, violence, street cleanliness... "It's not just about teaching them computers, but doing it by awakening their civic awareness," explains Estela Machado, the educational manager of the place. Jaidir, the teacher, is a former student of the CDI. A resident of the neighborhood, he was unemployed when he signed up for the course. Cost: 10 reals per month, about 40 F (6.10 euros). Budget. The teachers receive as a salary half of the monthly payments made by the students. The other half of the budget finances the school kitty (small equipment purchases, electricity costs, etc.). "Each school must be self-financing to guarantee its long-term development," explains Maria da Paz. "The CDI gives us the computers at the start, supervises us, trains the teachers." The school, which is only one year old, remains open from morning to night, every day except Sunday. 200 students in total, from 7 to 78 years old. The success of the CDI comes largely from its decentralized structure. 22 regional centers have been founded in Brazil, others in Latin America and even one in Japan. Principles. Each regional unit uses the name and the Baggio method on the sole condition of respecting its principles: political independence, management ethics and civic training. No money circulates between the Rio CDI and the local CDIs, nor between the CDIs and the schools. The Rio HQ lives off donations, mainly American: Kellogg's Foundation, Dell Computer, Microsoft, Xerox... The benevolence of the IT giants is probably not disinterested: the CDIs tend to broaden the market, to integrate more consumers and qualified workers. Baggio does not question the system in place. Rather than generalizing the use of free software, the CDI uses the ones it receives for free from Microsoft. "We can only push back the wall of virtual apartheid a little," recognizes Maria da Paz. 99% of homes still do not have direct access to the Web. Only 4 to 5 million Brazilians, out of 170 million, surf regularly. "In this part of the São Carlos neighborhood," emphasizes Maria, "live the least poor in the area. Everyone has a TV, a solid house. They are our customers. The poorest, those who can't read, or live further away, don't come." An exception: Beethoven (that's his first name), a little black boy of 11, son of the cleaning lady at the CDI. His family lives in a mud house at the other end of the hill, where the kids often let themselves be seduced by cocaine dealers who hire them as drug delivery men. Symbol. Beethoven completed the basic training in three months, then signed up for an in-depth course. Clever, he got himself hired as a volunteer at the CDI where he spent his summer holidays observing Baggio's team. His hobby: copying the poems of Vinicius de Moraes on screen. He has thus become a symbol of the fight against technological exclusion, as have the school installed in the Philippe Pinel psychiatric hospital (subsidized by the city) and the weekly classes in a state prison.

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As the dotcom bubble deflates, a little-known sector is coming back to the forefront: freeware and other shareware. These "alternative" software programs, developed by individuals outside of traditional commercial channels, are fueled by passion, not stock options. However, the passion of software artisans is intact, and the Web is now giving it wings. As its name suggests, freeware is free. Shareware is a stranger animal. In plain English, we speak of "contributory software": users of these programs pay the authors a contribution, often modest, if they are satisfied with the product. Little known to the general public, shareware really took off with the Internet, which allowed users to easily find the programs they needed, and gave authors an international audience via their own site (previously, they had to distribute floppy disks). In addition, shareware has found itself like a fish in water in the culture of the Internet. But the rise of contributory software is very difficult to quantify, since it does not belong to the commercial sphere and market research companies are not interested in it. Sharing. Shareware was born in the early 1980s when two Sunday programmers, Jim Button and Andrew Fluegelman, decided to share the programs they created personally. Ambition: to create a distribution channel parallel to that of publishers, whose products were considered far too expensive. The user of shareware does not pay anything during a trial period. Then, he has the moral duty to pay the software license to its creator. Following this principle, the author accepts that his baby is duplicated and distributed freely. These creators are rarely professional computer scientists but people who have made programming their hobby. This is why this environment remains one of the unknown areas of the Internet. How many creators, how many users? What proportion of people pay their share? The main French shareware associations have nevertheless attempted to draw up a picture of their sector. For the year 2000, the software base of Rush (Group of Shareware Users) lists approximately 2,500 French-language products available, developed by 700 authors. Essay. At Afas (French Association of Shareware Authors), we are talking about a thousand authors (1). But many of them develop a product "to see", without persevering. With the Net, however, things have changed a little. "A small author can find a niche thanks to the Web", estimates Philippe Supera, one of these lucky ones. The offer has become considerable: games, educational programs, office software, various utilities, such as the essential WinZip (file compression and decompression software). Many Web tools are distributed in the form of contributory software, or more precisely demoware: to encourage users to pay their contribution, the free versions are "restricted". "Internet users are increasingly used to having products without spending a cent. They test them, have fun for a few weeks, and ciao," regrets Patrick Coscas, who has been developing shareware for five years (tarot games, divination games, etc.). This is because shareware has nothing to do with "free" or open source computing, which gave birth to products like Apache or Linux (non-commercial alternatives to the products of major publishers). Mastery of tools. Open source software, whose intimate code is public and modifiable by anyone, aims above all to allow collective development of software, and to give computer scientists total control of the tools they use. Not so with shareware: their code is jealously kept secret by their authors, who do not want others to tamper with their creation. And then, you have to make a living, or at least try. "Do butchers give away their meat?" protest the brothers Didier and Olivier Guillion, who have managed to make contributory software their profession (see opposite). (1) www.chez.com/anlbbs/Enqrs00w.htm www.rushweb.org, www.afas-fr.org

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Strength in numbers. Based on this principle, which is very popular during election periods, three associations have decided to come together to create Gitoyen, a citizen economic interest group (GIE). It brings together French Data Network (the leading historical Internet access provider in France), Globenet (free host of a host of association and union sites) and Placenet (defender of free software that offers ADSL connections at reduced prices). Two social enterprises, Gandi (a company created by Valentin Lacambre and Laurent Chemla, which sells .com, .net and .org domain names at an unbeatable price) and Netaktiv (commercial realization of the Internatif portal) are also part of the GIE. Objective? To allow the existence of a Web independent of the commercial world. Logical, but not easy when access to the Web remains the property of the major telecommunications operators. Hence the solution imagined by the Gitoyen team: "Create a new provider of hosting infrastructure and access to the Internet for a non-commercial purpose and a primarily civic, associative and social framework." How? By pooling their skills and resources. The GIE's first fight: to offer non-commercial Internet players access to the Network at the lowest possible prices. "The richer you are, the more likely you are to have bandwidth, because the bigger a digital pipe is, the cheaper it is," says Stéphane Bortzmeyer, a network systems engineer at Netaktiv and impromptu spokesperson for Gitoyen. For our part, we struggle to get bandwidth while the servers of large companies have everything easily." Indeed, the price of Internet connectivity is very high for a simple association. Hence the idea of grouping together to buy bandwidth in bulk and thus achieve substantial economies of scale. An agricultural cooperative of the Internet, in short. "The GIE is intended to be a telecommunications operator," summarizes Stéphane Bortzmeyer, who dreams of becoming the worst nightmare of the main French operators. Indeed, the GIE intends to buy connectivity directly from telecommunications operators, without going through an Internet access provider so as not to depend on one of them. But make no mistake, Gitoyen will never be an operator intended for end users but for collective entities. Its purpose is to offer connectivity to its members. Associations will have to contact the members of the GIE directly according to what they are looking for: Placenet for an ADSL connection, Globenet for website hosting or Gandi for a domain name. Initially, the circle of members should be limited to that of the founders, and any new membership will be subject to their unanimity. "Those who want to join us will have to refuse with us that the Internet is only a supermarket," warns Stéphane Bortzmeyer. For the time being, the "gitoyens" are struggling with the paperwork. In three months, the GIE should be operational.

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This Saturday, Napster will have to answer for itself. As Californian judge Marylin Hall Patel had asked it to on March 5, the famous free music site had five days to block the hundreds of thousands of songs downloaded by its users without respecting copyright. But the "Napsterians" did not wait for the legal decisions of the last few days to migrate to other software as effective as Napster. Gift. In October, Albert, 27, an engineer for a television channel, received an MP3 player as a birthday present. "Overnight, I started downloading songs from Napster. Every night, I selected an hour of music, just the time it took me to travel on the subway every morning." In mid-February, when Albert learned that the days of his favorite website were numbered, he decided to look elsewhere. "It's incredible, but the discussion forums are full of messages from Internet users giving the addresses of Napster clone sites. I ended up discovering several, including Imesh, where I was able to download songs and even the "realjukbox player" [a sort of virtual tape recorder on the Web] which costs 200 francs on the market." A computer scientist for ten years, Frédéric, 38, cannot believe that Napster will close in the coming days. In the days before, he visited the site again. "On Thursday evening, I downloaded more albums. I have at home the cable that allows my computer to absorb an album in 15 to 20 minutes." Frédéric, who since September has collected the equivalent of 500 albums on the American site, cannot find substitutes for Napster. "I am a fan of rock and independent electronic music. Napster is a form of virtual pedagogy that allows you to constantly enrich your knowledge by discovering music albums that you will never find on the record market. For me, this site is better than others like Napigator." The fact remains that this loyal Napsterian does not hesitate to put his hand in his pocket to help Internet users who offer on the Net the development of free software intended for musical exchange. "Recently, I paid 200 francs on the Internet to help develop a product for distributing files in MP3 format," explains Frédéric. Explosion. "You stop one Napster, ten are created," indicates Tariq Krim, founder of the information site mptrois.com. "Our section devoted to the multiple Napster clones explodes with visitors." Moreover, last Tuesday, the employees of a competing site, Aimster, made an offer to save the American site. Aimster's programmers claim that in six hours they developed an encryption solution using a form of Javanese that allows Napster users to bypass Judge Marylin Hall Patel's restrictions.

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In the small world of cryptography, it's a whirlwind. Philip Zimmermann, inventor of the PGP encryption software, announced at the end of February that he was leaving the company PGP Security, a subsidiary of Network Associates Inc. (NAI), one of the American giants of computer security. The PGP program, for Pretty Good Privacy, was created by Zimmermann about ten years ago, then offered to everyone via the Internet. Reputed to be powerful and inviolable, his goal was to create "cryptography for the masses", so that every citizen could easily protect their private life. In short: to ensure that no one would come and snoop on their electronic correspondence. Emotion. If Zimmermann's departure is causing so much emotion, it's because he risks calling this fine program into question. By selling his company to NAI at the end of 1997, the father of PGP had already alienated quite a few loyalists. He believed that only a strong group could democratize the tool. His mere presence at NAI was a guarantee of trust, even if the crypto diehards believed that PGP had become a "gas factory" oriented primarily towards corporate security. By leaving the company, Zimmermann leaves his software orphaned. However, in terms of computer security, trust hangs by a thread. Programs are increasingly complex, and the algorithms - the mathematical modules that encode and decode messages - can hide as many traps as "backdoors" (in good jargon). It is thus accepted that only algorithms that have been dissected by independent experts can be used without unpleasant surprises. For ready-to-use software, the guarantee lies in the "source code", i.e. its intimate structure, which must be public. Now, among the reasons for Zimmermann's departure, there is this one: "The new management of Network Associates has decided to reduce the share of the source code that would be published," he explained to PGP users. "I have always been intransigent on the principle of publishing the (complete) source of all crypto software, they (at NAI) have not necessarily agreed with me." George Samenuk, the new boss of Network Associates, did not mince his words in responding to him: "Phil Zimmermann has not been part of NAI for over two years. He was actually on a consulting contract, he worked for NAI about one day a month. Phil's departure has no impact on the development of PGP, nor on current and future customers." Encrypted mail. The father of PGP has joined another American company, Hush Communications, which provides encrypted mail services on the Web. And wants only one thing: for PGP to become free software, like Linux. This is the goal of the OpenPGP project, which aims to become the encryption standard for communications software. "Zimmermann should have left a long time ago," says French computer scientist Stéphane Bortzmeyer, one of the first apostles of PGP, at the time when the program was illegal in France. "In any case, now that we have GnuPG (Gnu Privacy Guard, an "open" software resulting from Zimmermann's work), PGP is history," he believes. Jean-Loup Gailly, an old hand at "free" computing, hopes that "market pressure will be enough for NAI to revise its position and agree to deliver the sources. This is particularly important for a program like PGP. Otherwise there is indeed a risk that the software will become opaque." "Next June," Zimmermann concludes in his farewell message, "will be the 10th anniversary of the public release of PGP. It was originally designed as a tool for human rights, to protect privacy and civil liberties in the information society. By proliferating the OpenPGP standard, we can renew that promise." http://openpgp.org www.geocities.com/openpgp www.gnupg.org/

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MICHEL BRIAND 49 years old. Deputy Mayor of Brest Elected in charge of citizenship, local democracy and new technologies, this forty-something member of the Greens puts all his energy into integrating new technologies into the city. He participates in the development of Papi, public Internet access points in Brest, and advocates for local authorities to take charge of computer networks themselves. www.mairie-brest.fr DOMINIQUE BURGER 50 years old. President of the BrailleNet association Since 1982, Dominique Burger, a research engineer at Inserm, has been working on access to new technologies for the visually impaired. He fights so that the blind and partially sighted can benefit from the tremendous potential of the Internet and created BrailleNet at the Pierre-et-Marie-Curie University (Paris-VI). The association's statutes were filed in September 1997. After Braille was invented in the 19th century, the Internet revolution made it possible to provide easier access to knowledge. BrailleNet enriched a virtual library and participated in a new portal, VoirPlus. www.braillenet.jussieu. fr SEBASTIEN CANEVET 46 years old. Academic Lecturer at the University of Poitiers, specialist in Internet law, Sébastien Canevet created a legal information site, "Le chêne et le gland". The researcher examines the court decisions that govern the network with a magnifying glass. An expert with the Ministry of Foreign Affairs, he participated in Internet development missions in Africa, which notably made it possible to open a free website hosting service in Dakar. www.canevet.com FREDERIC COUCHET 31 years old. Free Software Activist It was at university that Frédéric Couchet discovered so-called "free" software because its "source code" is not a trade secret but is freely accessible. Since then, the young engineer has been opposing the "proprietary world" (that of industrial patents) to the "free world". In the latter, software is constantly improved and corrected by thousands of volunteer computer scientists. To defend this vision of computing, Frédéric Couchet created April (Association for the promotion and research of free computing), the French branch of the FreeSoftwareFoundation. www.april.org LAURENT JESOVER 35 years old. Webmaster of the Attac website During major liberal anti-globalization demonstrations such as Seattle, Prague or Nice, he is on the ground with his laptop, to continue to feed the Attac website in real time. The rest of the time, Laurent Jesover, since 1998, has been coordinating work between the 80 or so webmasters of the association's local sections, all over the world. For him, the Net is an "ideal" tool, the best way to develop "cooperations" and to involve local groups as much as possible. www.attac.org Bernard Lang 55 years old. Researcher at the National Institute for Research in Computer Science and Automation (Inria) When you meet him, he immediately speaks ill of Windows: Microsoft's flagship software crashes all the time and Bill Gates' firm only dreams of monopoly. Then he immediately begins to speak with emotion about Linux, Windows' competitor, free, developed by thousands of volunteers around the world. Can be copied and modified at will. This researcher in Rocquencourt is one of the most zealous activists in France, at the head of the French Linux Users Association (Aful): with administrations, where he pleads for "technological independence", schools to "free schools from Microsoft", or the European Commission to explain to them that patents are harmful. www.aful.org MARC KNOBEL 40 years old. Vice-president of the Licra He wants to create an association "J'accuse" in order to bring before the courts "all racist atrocities" on the Net. www.licra.com VALENTIN LACAMBRE 35 years old. Defender of the non-commercial Internet He has a fixed idea: the independence of the network. The former creator of Altern.org (a free website hosting service that was closed last June due to repeated lawsuits) has just set up "Gitoyen", a GIE (economic interest group) between associations to promote access to the Internet, website hosting and ADSL (broadband) connections at a lower cost. He took this initiative with Laurent Chemla, another non-commercial Internet activist. Last year, the two friends had already created Gandi, a company that offers the purchase of domain names for 80 francs per year. www.gandi.net MERYEM MARZOUKI 39 years old. President of the Iris association Electronics researcher, president and founder of Iris (Imaginons un réseau Internet solidaire), runs the most influential of the Internet user associations. www.iris.sgdg.org PIERRE LAZULY 27 years old. Author of "Chronicles of the Liar" He likes to bash advertising, marketing and all the hassles of deceptive communication. But without showing himself: during the day, the author of Chronicles of the Liar works in a high-tech company in the west of France. At the heart of the system he denounces. And at night, under the pseudonym Pierre Lazuly, he takes revenge on the hypocrisy and hollow concepts of the new economy by sending his sharp posts free of charge by e-mail to more than 6,000 subscribers. He has also opened a "wooden portal", far from the flashiness of the big guys, to list the best of the alternative press and webzines. www.menteur.com www.rezo.net ARNAUD MARTIN 30 years old. Webmaster of the Scarabée Arnaud Martin, alias ARNO\*, is one of the most active figures of the "webzinards", activists for freedom of expression for all on the Web. Not a day goes by without him being offended by the police or legal speeches of those who would like to bring the Web into line, by making people believe that it is a den of "pedonazis" or the place of all verbal excesses that go unpunished. He puts his ideas into practice with his own webzine, the Scarabee, where he editorializes in all directions. And he is one of the most active members of the Minirezo, a group of independent webmasters who have opened a site to host the texts of those who want to express themselves. www.scarabee.com www.minirezo.net

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The record industry's top brass realized this very late: the possible closure of Napster will not disarm the fans of free music on the Internet. A pioneer in computer file exchange systems, the American site, since its appearance in the fall of 1999, had stimulated computer scientists, programmers and developers from all over the world, who had started to write equivalent software. A decentralized system. This competition that does not say its name was even, at the beginning of 2000, at the origin of a quarrel between the bosses of AOL and Time Warner, which had just merged. The computer scientists of Nullsoft, a subsidiary of AOL, had just created Gnutella, a peer to peer system (from "person to person") much more revolutionary than Napster. Unlike the latter, Gnutella does not go through a central server. It is a decentralized system that allows a direct relationship between users' computers. AOL, which had just acquired Nullsoft, had not had time to intervene before its creators had already released Gnutella on the Internet as open source ("free access"), and a multitude of versions had appeared in the process. Six months later, AOL found itself in the same situation with another software, Aimster. Steve Case discovered that a New York company had developed, without its knowledge, free software allowing the exchange of files between several users of AOL Instant Messenger (AIM). A service that has 64 million customers worldwide. As for Aimster, already adopted on Yahoo's messaging service, it is currently being tested for use on Microsoft's messaging service. Its managers were also reportedly approached by the head of e-commerce at Bertelsmann. 2000 was the year of peer-to-peer (P2P), inspiring a whole generation of software that today goes further than its predecessor, because it ensures the anonymity of correspondence, allows the exchange of all types of files or even protects copyright. At the end of July, when Judge Patel declared admissible the complaint of the music industry against Napster, hundreds of thousands of users of the site migrated to other clone software. In addition to Macster (the Mac version of Napster), new open source software, such as MP3 Grouppie, appeared every day. This ingenious system allows you to search for MP3 files, even in discussion forums. Another, CuteMX, offers an integration service to a community where file sharing is accompanied by discussions. Regularly, a system gains the upper hand over its competitors. In recent months, Napigator, a utility that allows you to select the server you want to use yourself, has attracted several million users. With its mascot in the shape of a green platypus wearing headphones, Napigator is now considered the service that may succeed Napster. Majors optimistic. The music industry has understood the danger created by the disappearance of the leader in free online music. It launched a major campaign on Monday warning 60 access providers against hosting so-called Open Nap servers. This term launched in July refers to the Napster protocol. It was made public by programmers, who wanted to ensure its resurrection through multiple other versions. According to the Wall Street Journal, the future targets of the American music industry would be Napigator and Gnutella. One of its representatives assured that "the majors have discovered a way to combat" Napster clones. But he refused to reveal their strategy. napigator.com, gnutella.wego.com, freenet.sourceforge.net

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JEAN-FRANCOIS ABRAMATIC 51 years old. President of the W3C If the visually impaired can enlarge the characters on websites, it is partly thanks to him. Since 1996, he has been the president of the World Wide Web Consortium (W3C), the international organization responsible for standardizing the Web. It is thanks to the W3C that Internet users can create sites, add images, text, sounds, animations, and be certain that their works will be accessible from Tokyo to Los Angeles. He must ensure that companies, laboratories, and politicians work together to ensure that the Net remains a "standard". www.w3.org ALAIN BENSOUSSAN 50 years old. Lawyer Lawyer at the Paris Court of Appeal, he founded one of the very first law firms specializing in computer law in 1978. This firm is now the source of a significant volume of case law on network and telecommunications law. Alain Bensoussan is also an arbitrator with the World Intellectual Property Organization (WIPO) and president of the Biotechnology Law Commission. www.alain-bensoussan.tm.fr PATRICK BLOCHE 44 years old. PS Delegate for New Technologies Four years ago, like everyone else in the National Assembly, Patrick Bloche didn't understand anything. But, unlike many elected officials, he pretended to, sensing the right modern niche. Today, the head of the Paris PS federation is also the party's delegate for new information technologies. And he knows the subject. He left his name to an amendment to the law on freedom of communication, dealing with the responsibility of website hosts. Since then, his text has been chopped up by the government and several trips back and forth between the two Chambers. Before being partly censored by the Constitutional Council. But, for Internet users, "Bloche" remains synonymous with online responsibility. www.patrickbloche.org Francis BECK 53 years old. Member of the CSA Member of the Higher Audiovisual Council since January and former head of the National Audiovisual Institute (INA), Francis Beck, 53, is in charge of the new information technologies working group within the administrative authority. The role of the CSA in this area remains unclear: will it be limited to radio and television websites or will it be more important? The law on the information society, planned for the end of the year, should decide. www.csa.fr FLORENCE DURAND 41 years old. Vecam General Delegate Within the Vecam association (European and civic values on information highways and multimedia), a platform for exchanging projects in local authorities, Florence Durand strives to ensure that elected officials seriously understand the future of new technologies in their cities by involving residents. Allergic to amateurism, she is finalizing the development of a resource center that will offer experiences of Internet use in local authorities in France. www.vecam.org Isabelle Falque-Pierrotin 41 years old. Master of Requests at the Council of State She is responsible for setting up the future regulatory body for the Internet in France. Code name: Internet Rights Forum. This is the mission that Lionel Jospin entrusted last December to this hard-working Web specialist. Author of a report on the Internet and digital networks in 1998, she already mentioned the need for a consultative body combining public and private actors and representatives of Internet users, in order to police the often violent debates that cross the French Internet. Jean-Jacques Gomez 55 years old. First Vice-President of the High Court of Paris He is the "little judge of the Internet" who attacked Yahoo United States, considering last year in an order that the sale of Nazi objects on the American giant's auction site was an "offense to collective memory". And Yahoo had to give in. For almost five years, he has regularly rendered decisions concerning the application of law to the network: copyright, credit card fraud, defamation He remembers with a smile the first pleas that spoke of "absolute freedom on the Internet". He has formed two convictions: the network requires "thinking differently about the application of the law, but not recasting it", and magistrates must immerse themselves in technology in order to make "applicable" decisions. In the wake of the Yahoo affair, it is now the international that intrigues him: the global Internet is causing legislation to clash. Clearly, he does not mind. JEAN-MICHEL HUBERT 62 years old. President of ART He took up the post of president of the Telecommunications Regulatory Authority when it was created in January 1997. As soon as he was installed, he had to settle the dispute between the historic operator and Lyonnaise Câble regarding high-speed Internet. Then he clashed with the government in the Net in Schools affair. He has also become the advocate for Internet users who are demanding cheap connections. To engage today in a showdown with France Télécom about fast Internet on copper wire. www.art-telecom.fr Marie GEORGES 54 years old. Head of mission at the CNIL Contributed in 1973 to the creation of the CNIL (National Commission for Information Technology and Liberties). And she joined it right away. Today head of mission for telecommunications, online services and relations with foreign CNILs, she is part of "this generation of 68" who found at the CNIL a "citizen's job". As soon as the Internet appeared, the CNIL jumped on it. Do the Internet and individual freedoms go well together? "This can only lead to progress to the extent that the principles established by the CNIL are taken up everywhere in Europe and even today in the USA." www.cnil.fr OLIVIER ITEANU 38 years old. President of the French branch of the Internet Society A lawyer specializing in new technologies, he was elected in June 2000 and for two years president of Isoc (Internet Society) France. Isoc brings together researchers and industrialists supposed to "preserve the spirit of the Internet", but its attributions have never been well understood. There are 100 chapters of Isoc in the world which will all meet in June in Stockholm. The opportunity to take stock? www.isocfrance.org JEAN-CHRISTOPHE LE TOQUIN 30 years old. Permanent delegate of the AFA He is at all government consultations on the regulation of the Net. At all the conferences where freedom of expression, surveillance, responsibility are discussed. This lawyer by training has been the "voice" of professionals and network access providers since 1997, as spokesperson for the Association of Internet Access Providers (AFA), which brings together more than 90% of companies in the sector, from Wanadoo (France Télécom) to Multimania, including Club Internet. www.afa-france.com BRUNO MANNONI 50 years old. IT manager at the Ministry of Culture This engineer by training played a key role in the introduction of free software to the Ministry of Culture. His design of the website for this ministry is a reference. Bruno Mannoni, who discovered the Internet at the end of 1993, has always dreamed of creating his site "to promote France's cultural heritage". He is going to be served: he is responsible for connecting all the museums in France. www.culture.fr VALERIE PECRESSE 33 years old. Technical advisor to Jacques Chirac When Jacques Chirac changes his "social divide" to a "digital divide" to deplore the growing inequalities between those who have access to the Internet and the others, she is the one who tells him the score. When Chirac starts talking "bitoubi" (business to business) at lunches at the Elysée with start-up bosses, it is she again. At 33, she has been at the side of the President of the Republic since Easter 1998. www.elysee.fr FLORENCE SCHMIDT-PARISET 48 years old. "New technologies" advisor to Lionel Jospin's office She works alongside Jean-Noël Tronc. Formerly from the Ministry of Justice, she participated in the negotiations on the Electronic Commerce Directive with the European Union. His appointment to Jospin in June 2000 corresponds to a development in government projects related to the Internet: the year 2001 will be marked by law and the law, with the law on the information society (LSI), planned before the end of the year, as well as the establishment of the Forum of Rights, the future regulatory body for the French network. www.internet.gouv.fr HENRI SERRES 50 years old. Director of the DCSSI This former secret service employee is responsible for modernizing the Central Directorate for Information Systems Security, which reports directly to the Prime Minister: at the head of a team of security professionals, he must ensure that no pirate infiltrates the "essential infrastructures of the nation". And evaluate the software used by sensitive administrations to verify that they do not contain any traps likely to be used by foreign states for espionage purposes. www.scssi.gouv.fr RENE TREGOUET 61 years old. Senator for the Rhône He is the nerdiest politician in France and his weekly electronic newsletter @RT Flash confirms it. He is the one who introduced the Internet to the Senate and his activism for free software is rare among elected officials. René Tregouet became known for his report From the Pyramids of Power to Knowledge Networks published in 1998 which brought the senator into the inner circle of French elected officials aware of the future of the country in terms of new technologies. www.tregouet.org/entre.html MARCEL VIGOUROUX 54 years old. Head of OCLCTIC He is the head of the cyber cops. Divisional Commissioner, he has been heading the Central Office for the Fight against Crime Related to Information and Communication Technologies (sic!) since this organization was created in May 2000 to give more resources to network police officers. His job is to catch Internet offenders: bank card fraud, hackers, CD pirates. And to struggle with technology, not always the police officer's best friend. www.interieur.gouv.fr/police/oclctic/

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JEAN-PIERRE BALPE 59 years old. Director of the Hypermedia Department at the University of Paris-VIII At the risk of shocking, Jean-Pierre Balpe likes to state that "computer science is an opportunity for literature". An agrégé in classical literature, he "met the computer by chance" in the early 70s. He never left it. From 1975, he tinkered with automatic text generators, which became his specialty. A crossroads of computer literature, he participated in 1981 in the founding of the Alamo (Workshop for Literature Assisted by Mathematics and Computers). A poet, he has published collections such as Bleus et le Silence, and runs the magazine Action poétique. In 1985, he participated in an avant-garde exhibition at Beaubourg, "les Immatériaux", "which revealed the place of immateriality in our society", and designs "generative" shows. On the Internet, he has just released, with his DESS students, an interactive thriller entitled Trajectoires whose narrative structure changes each time the Internet user connects. www.agraph.org MAURICE BENAYOUN 43 years old. Designer and teacher The first time we heard about him was in 1989, with the series Quarks, the first in high definition 3D and 35 mm. An agrégé d¹arts plastiques, he has taught creative video and new media (Sorbonne) since 1984, and since 1994 he has created virtual reality installations (Les Grandes Questions, 1994-1996, Dieu est-il plat, a labyrinth around the image of God, Le diable est-il courbe, around seduction) and image tunnels, such as the one presented at La Villette in 1998, Tunnel Paris-New Delhi, where French people could meet Indians in the image tunnel. This year, Parisians will owe him the new Franklin-Roosevelt metro station, virtual reality, artificial intelligence linked to the Internet www.benayoun.com GREGORY CHATONSKY 29 years old. Online artist Author of numerous art videos and video installations, Grégory Chatonsky produced the CD-Rom Mémoires de la déportation between 1995 and 1998, which won the Grand Prix Möbius in 1999. Chatonsky is also the designer of several online works such as Sous terre (produced for the 100th anniversary of the Paris metro), or Revenances, a work on ghosts produced in collaboration with Reynald Drouhin and presented at the Montreal Arts Biennale. He is currently working on an interactive fiction project in Manhattan on the city and memory. He is the founder of the creative platform "Incident" which presents experimental and interactive works specifically created for the network. www.revenances.net www.sous-terre.net www.incident.net CECILE HUET 24 years old. Artistic Director of E-Toile, live performance on the Net After studying at the Beaux-Arts and creating scenography for the theater, she founded in 2000 in Strasbourg, with Yannick Bressan, the research group and the performance hall E-Toile, which offers theatrical and choreographic experiences specially designed for the Internet. Their credo: invite the Internet user to take part in their development. Through a chat, and by voting systems, the Internet user influences the course of the work. E-Toile has several shows to its credit: two choreographies, CHORé-CARRé I and II, le Martyre, an interactive theater piece readapted for the Internet. Next show, Côté noir, côté blanc on March 28, 29 and 30, 2001, live from the Fabrique de théâtre in Strasbourg and on the Web: www.e-toiler.com SEBASTIEN KOCHMAN 28 years old. General Manager of Chman With his electronics baccalaureate in his pocket, Sébastien Kochman worked as a freelancer for 3 Suisses. A bread-and-butter job that allowed him to put a little money aside and create Chman in 1998, a Lille company specializing in online Flash entertainment. Banja.com, their star adventure game, puts the player in the shoes of a little rasta, a former reggae star, stranded on an island. The game license has already been sold in Spain, Brazil, Portugal and very soon in Italy and Korea. Japanese public television NHK awarded them the prize for best foreign design in December. The team also works on the production of clips for television (Fatboy Slim ad, Laurent Garnier clip) and is preparing a 3D cartoon for television. www.chman.com www.banja.com PIERRE LAVOIE 47 years old. President of Numer.00 Founder of an art gallery in Montreal in 1974, his hometown, mason in the Cévennes in 1978, Pierre Lavoie studied linguistics at Stanford which led him to take an interest in artificial intelligence. In 1985, he moved to Paris to take care of linguistic and musical developments. Since 1991, he has managed the company Hyptique, specialized in the design and production of websites and CD-Roms with innovative designs (such as the remarkable Electroacoustic Music). Last December, he launched the first international interactive design conference numer.00, bringing together practitioners and theorists of interactivity from all over the world for two days. "I wanted to create this meeting to encourage the emergence of a critical perspective, to forge the words that will structure our profession." www.numer.org www.hyptique.net ANTOINE MOREAU 35 years old. Web artist, initiator of Copyleft Attitude and the Free Art license Antoine Moreau campaigned to promote the notion of copyleft as opposed to copyright in the field of contemporary art. The objective: to model practices related to free software (such as the Linux operating system) and apply them to artistic creation. This approach gave rise to the Free Art license, which allows everyone to copy, distribute and transform works created under this license. Copyleft Attitude, which brings together around 150 people (artists, computer scientists, lawyers) in France, Belgium and Canada, is organising a copyleft party on 3 March at the webbar from 3pm to midnight with creations and co-creations of new free works live. www.copyleft.tsx.org www.artlibre.org François ROCHE 40 years old. Architect From the heart of Belleville, François Roche has built an international reputation with the construction of the Maison de la culture du Japon in Paris, the Musée-Mémorial in Soweto (Johannesburg) and the Venice School of Architecture. Within a discipline that is struggling to find its place on the Net, Roche is a scout. Founder of the New-Territories association (new-territories.com), he campaigns to force architecture to extract itself from reality. How? By creating his universe (Space 99) in activeworld.com. There are no common landmarks and we move around by teleportation. www.new-territories.com BRUNO SAMPER 26 years old. Web designer. Artistic director of Panoplie A graduate in visual arts and art sciences, he is the creator of the organic e-zine panoplie.org co-founded with Caroline Muheim and Patrick Perry in 1998. This explosive magazine, spanning all genres (journalistic, artistic, technical), brings together around a theme (happiness, vertigo, and recently the garden) a nebula of artists and scientists. The young man from Montpellier has just created a multimedia production company, "a tool for developing projects on new concepts" such as the latest: protoform.net, a new form of community site based on a utopia. He is working on the creation of an online adventure game with the Mox interactive company. With the same guiding principle: "Be fiercely original and fight against formatting and preconceived ideas, break down barriers and have fun." www.panoplie.org www.protoform.net MAKOTO YOSHIHARA 32 years old. Creator of musical interfaces Active member of the Téléférique collective, the young Japanese man living in Paris since 1988, who studied at the Ecole nationale supérieure des beaux-arts, creates musical programs (such as lOOp or bOOm) that Internet users can download for free on Téléférique. Real little concert tools, Internet users can use these "sound toys" to create their own pieces. Téléférique, a contemporary art site created in March 1999 by Etienne Cliquet and Sonia Marques, is designed as a collective network office, composed of directories where artists and programmers deposit their digital works. The Internet user can pick videos, audio files, 3D, musical interfaces, software, games Makoto regularly participates in "demo-concerts", during which he manipulates his programs live. Like this Saturday at the Cité des sciences in Paris between 2 and 6 p.m. www.teleferique.org

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New technologies have been quietly entering our daily lives for several years now. But the explosion of the Internet, the ever-increasing sophistication of computer hardware and, above all, the arrival in force of digital and interactivity in telephones, televisions, sound and image processing should revolutionize our habits and give rise to a cohort of new devices: MP3 players to listen to music downloaded from the Web with a sound quality equivalent to the best audio CDs, smart phones, organizers and personal assistants connected to the Network of networks, and so on. Not a week goes by without a manufacturer announcing a new product whose tenfold performance immediately sends the previous model, already very innovative, into the dustbin of modernity. On the occasion of the fourth Internet Festival, which will see, from March 2 to 4, a number of events celebrating the most symbolic tool of this revolution, Fnac and Le Figaro asked the Louis-Harris Institute to survey the French (see the technical sheet, opposite page) to better understand their perception of new technologies. Overall, the French appear to be interested in their applications. But the results of this survey, which we present to you today, reflect a rather nuanced reality: 17% of those questioned declare themselves to be in clear withdrawal, 33% show relative interest and 50% affirm a marked interest (including 12% of people very interested). It seems, upon analysis of the results, that the cause of this measured attraction must be sought in the perception of a universe whose contours are still unclear. While 61% of French people say they keep themselves informed about "new technologies", when it comes to spontaneously mentioning a product, tongues have some difficulty loosening. Only four terms come up repeatedly: Internet (36% of mentions), computer (36%), mobile phone (34%) and IT (26%). Apart from DVD and television, other products (MP3, ADSL, WAP, etc.) are only mentioned very marginally. Clearly, the French have difficulty understanding the new technologies landscape, probably due to both the abundance of what is on offer and the little time they have to integrate it. One figure alone supports this result: 86% of French people consider that there are more and more technological products and that it is not easy to choose the one that will be best suited to their needs. But the answers provided to the Louis Harris Institute investigators also reveal the outline of a cognitive divide between those who know and those who would like to know how new technologies could help them in concrete terms. A majority of respondents expect clearer information on the new possibilities offered, and, for 89% of them, a training offer, before or after a purchase in a specialist store. While the euphoric hopes that once rocked the multimedia world should be tempered, the situation is not as bleak as some would have us believe. Thus, in terms of usage, 66% of French people use a mobile phone and 10% intend to acquire one in the next 12 months; 39% use a computer or laptop at home and are often equipped with peripherals (printer: 94%, CD-ROM reader: 90%, scanner: 48%, CD burner: 26%) and 22% use the Internet at home (see opposite page). Digital cameras and camcorders, PDAs (Palm and others) and MP3 players remain, for the moment, confined to niche markets. But the DVD player has experienced dazzling growth (16% of users and 17% purchase intention). A phenomenon, as Louis-Harris points out, which illustrates the ease of penetration of certain products when one can immediately grasp their operating principle, easily project the use that one will make of them and perceive their ease of use. The explosion in the number of mobile phones, in this respect, is also significant. The sometimes high prices of products using new technologies also constitute a factor of rupture between the interest that the public has in them and the rates of equipment, use or purchase intention noted. A comparison of the results covering a dozen products clearly shows that the French are not resistant to new technologies but do not all feel equal in this world. The financial barrier is highlighted by 88.4% of those questioned. A more detailed analysis of behaviors allowed Louis-Harris to create a typology of the French population and determine the characteristics of four large families (see below). The fact remains that 80.8% of people showing a real disinterest in new technologies believe that it is perhaps because of a lack of appetite for technical information (70.2% emphasize this) that it is all too complicated for them today. However, among those who reveal a significant enthusiasm and readily declare themselves to be "sufficiently informed", 44% also find new technologies too complex! Suffice to say that an effort of explanation on the part of the players in the sector can only contribute to further converting the French to new technologies, even if this approach will not free users from the necessary adaptation time. It should also be noted that the length of time they have been using the Internet plays an important role in this regard. Thus, 59% of Internet users who have had access to the Web for more than two years are very interested in new technologies, while only 40% of the population who have been connected for less than six months are.

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IT WOULD HAVE BEEN thought that Microsoft would take advantage of the trial period to buy itself a good behavior. However, the world leader in software has chosen not to change anything in its business practices, at the risk of attracting new wrath from the American administration. It has not failed. In addition to the trial for abuse of a dominant position that has been under investigation for two years, Microsoft's lawyers have not stopped pleading their client's good faith in numerous cases. Microsoft is notably accused by the Federal Trade Commission (FTC) of having broadcast a false advertising campaign in 2000 that targeted its rival in personal digital assistants, the Palm company. "Can your Palm do this?" asked Microsoft's advertisement for its new Windows operating system designed for handheld computers. However, according to the American administration, most of the functions described by Microsoft (Internet access, remote query of one's mailbox, etc.) required the addition of peripherals or additional paid options. Worse, these same services are also accessible with a Palm, provided that the latter is also equipped with a network connection. Microsoft defends its aggressive strategy by explaining that, in this market of digital organizers, it is it which is in a weak position. Its rival Palm claims two thirds of the market of these small all-purpose machines. Palm's domination is even greater on the market of operating systems. Palm decided several months ago to license its Palm OS software, now used by many manufacturers, including the mobile phone manufacturers Nokia and Motorola. Microsoft finally decided to end its campaign, without mentioning the FTC investigation. In its new advertisement, all reference to Palm products has now disappeared, which does not put an end to the procedure currently in progress. In October 2000, Microsoft had already had to pay damages for a similar campaign concerning digital decoders which allow access to the Internet via one's television. The world's number one software company had, once again, forgotten to mention the cost of communications and had misled consumers by promising access to all Internet services. ACQUISITION OF A RIVAL The Department of Justice is also examining Microsoft's recent acquisition of Corel, which notably manufactures WordPerfect software, one of the last competitors to Microsoft's Word word processing software. The antitrust authorities do not look very favorably on Microsoft's acquisition of one of its last rivals, given that Word already holds 90% of this market. Worse, they suspect Microsoft of having paid $135 million to prevent Corel from continuing to develop word processing software running on Linux, the free software that threatens Microsoft's paid model. Corel announced, a few weeks after its acquisition, that it was abandoning its Linux projects. The case is currently only at the investigation stage and it is still too early to know whether the new American administration will bring it before a judge. Finally, Microsoft does not hesitate to reproduce identically the practices that are now being directly criticized in its main trial. In the same way that it linked its Internet Explorer browser to Windows to block the road to its rival Netscape, it is trying to impose Windows Media Player, in the field of online video, to block RealPlayer, from RealNetworks, or Quicktime from Apple. It is also seeking to integrate its own instant messaging system within Windows to counter that of AOL. As if Microsoft refused to amend its practices so as not to appear to be pleading guilty.

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THE MAJOR RECORD COMPANIES are wrong to rejoice at the decision of an American court that has just condemned Napster, the symbol of free access to music on the Internet, to a slow death. Guilty of complicity in copyright infringement, the company lives under the threat of a definitive ban or, at best, of being transformed into a paid distribution channel for the music catalog of its new shareholder Bertelsmann. The separate Vivendi-Sony agreement illustrates the inability of the majors to cooperate. This legal victory will be short-lived. Other technologies, much more effective and even more elusive, are ready to take over. Worse, the unlimited access to information that characterizes the Internet, and the generalization of virtual communities that cooperate voluntarily on common projects, have irreversibly installed the notion of free at the heart of the model. The children of the Internet, born in this environment, have been "programmed" to refuse, by all means, to pay and to consider that information or a work has a cost and therefore a price, if we want it to be of quality. Napster is the symbol of this new underground economy that is shaking the foundations of traditional capitalism. The site napster.com distributes a small software program for free that allows Internet users to exchange files without an intermediary. Thanks to a constantly updated directory, Napster directs each Internet user to a peer who has the coveted music tracks on his hard drive. Fourteen percent of American Internet users (more than 20 million people) regularly used Napster at the end of 2000 and downloaded the equivalent of two and a half hours of free music each month. In France, "fraud" concerns 8.7% of Internet users for nearly two hours of music per month. The American judge now holds Napster "responsible for having contributed to infringing copyright." Software such as Gnutella or Freenet also allow files to be exchanged in the same way between Internet users. But, unlike Napster, no central server plays the role of a huge directory where the available files and the address of their owner are referenced. Gnutella establishes a computer community where each computer communicates with its neighbors to be informed, at all times, of the available files and their location. It is therefore impossible to disconnect a central server, to try to break the orientation compass, each computer manages by itself to find on the network what it is looking for, thanks to a machine-to-machine dialogue that the Americans have called "peer-to-peer". A FABULOUS CHANNEL The record industry is not the only victim of the piracy syndrome. Thanks to increasingly efficient compression standards, such as DivX, it is now possible to send entire films through the pipes of the global network. High-speed Internet subscribers can, with a few manipulations, download films. Rather than trying to contain this groundswell, the music industry could have appropriated the fabulous Napster channel to make it an ally, and imposed a form of subscription. The consumer or the Internet user is looking for simplified, fast and reliable services, qualities that the amateur nature of the current Napster does not have. The lawyers of the majors prefer to brandish the stick. They threaten to subpoena, as an example, Internet users unmasked at random on the Net, using the "IP" address which allows, by going back to the access providers, to identify the fraudsters. This ant-like work has already begun. But it seems incapable of stopping the groundswell that is sweeping the Net today: more than sixty million individuals are now engaged in piracy on the Internet. Is free access intrinsically linked to the Internet? Pirates are not the only ones responsible. Most economic players who have invested in the global network to do business there have often placed, of their own accord, free service at the heart of their model. In the field of information, leisure, entertainment, companies have sought, in this way, to build up a customer base that they hoped to charge later. This is the case for all major media, including press agencies. This strategy turns out to be a trap: no one wants to be the first to charge for information at the risk of scaring Internet users away to competitors who still offer the same service for free. Even the traditional model of selling advertising space in exchange for a guaranteed audience does not seem to work: the computer tool is advanced and allows Internet users to very easily skip advertising banners. The disarray of information companies (music, cinema, newspapers, etc.) is even deeper. Because Internet users do not just plunder, they have also become real producers of free services. Driven by a new culture of sharing, hundreds of thousands of Internet users have created their own Internet site to distribute, free of charge, the piece of knowledge that each of them holds. This desire for freedom, globalized and which concerns an entire generation of Internet users, this kind of militancy for free access, free exchange, has expanded to more institutionalized systems. OFFSET VALUES Thousands of computer developers have formed a community that designs hundreds of free software programs. That is to say that everyone can contribute their stone to the building, enrich the program, knowing that they will be able, in exchange, to benefit from the common work. Nothing prevents anyone from marketing the final result, in the form of CD Rom, on the sole condition of never locking access to the programming "codes", the basic keys of the system. The symbol of this new form of production is the "free software" Linux, Windows' great rival. The new economy will have to live with this legacy of the early Internet era, marked by the questioning of certain elements of intellectual property. Information players are trying to find a way out of the trap they have put themselves in, to change the culture of the Internet without alienating a generation with outdated values. They have time to do this, because paradoxically, the year 2000, the year of Napster, was marked by a new record for sales of recorded music in the United States. The volume of newspapers printed on paper has never been so high in the world despite the rise of the Internet. The Internet user hungry for music and unlimited information is therefore also a frenzied consumer. It is up to companies to find new models and adapt to this Napster generation, which has not finished rewriting the rules of the global economy.

## ###ARTICLE\_START### ID:496

When Jean-Marie Messier takes advantage of Milia, the big multimedia market in Cannes, to make himself the herald of the fight of the "creators" against the "plunderers", the chivalrous defender of intellectual property against these Napster beggars, we say to ourselves: does he measure them in dollars, the creators? But we can't help thinking: devil, the little God of Vivendi-Universal is clever... When, on the other hand, on that same February 12, 2001 in that same place of virtual debauchery, Lionel Jospin launches into a vibrant tirade against these "game crackers" with "unacceptable predatory behavior", we are surprised by such a disturbing proximity... Finally, on February 14, 2001 in the European Parliament, Axelle Red starts singing in chorus with Messrs. Messier and Jospin, we swallow our "e-dentures". And we listen with amazement to the words of his heartbreaking blues: the complaint of the poor star stripped naked by the hordes of digital pirates, by these 55 million or so Napsterians exchanging the salt of pop between bandits on the network, without paying a penny to the respectable authors' societies. But who are we talking about? What "predators"? What "plunderers"? Ladies and gentlemen, are you talking about these teenagers and students who pump and pass on bits of music or video games over the Net? Are you sure you're not mistaken? Confusing the friend who records for free for his buddies and the villain who, during recess, resells pirated CDs for 60 bucks? Don't you think that these adjectives "plunderers" and "predators" could be a little more accurate description of the pharmaceutical labs and the agri-food giants who patent everything they want with contempt for public health? Once again, no one is surprised by such shortcuts coming from the mouth of a magnate of a multinational leisure company. But what about these words coming from the lips of a Prime Minister or a Belgian singer? To the MEPs, Axelle Red argued that in eighteen hours sixteen thousand copies of her titles had been made on the Internet. Of course, these strings of donations and bartering are negotiated without a toll or even a pass. So what? By what financial miracle could the "plunderers" turn into buyers of overpriced laser discs? And who knows if the richest among these enthusiasts don't buy their favorite works after listening to them? You can make figures say anything, one way or the other. In the United States, music exchanges between Internet users via Napster exploded during the first half of 2000... However, during these six months, the American record industry saw CD sales increase by 6%! 420 million copies in six months! Record broken! What do the henchmen at the RIAA, the Recording Industry Association of America, who came up with this figure that has received little publicity, say about it? Nothing, because, you see, the RIAA has filed a lawsuit against Napster... And, when the renowned analysts at Jupiter Communication explain that Napster has created a new craze for music, and therefore serves the record industry, the record industry still talks about "looters"... Isn't it rather their disappearance that these industry fears? Is it not fear that drives them to wave the rag of the "plunderers" of the Net, the new avatar of the pedo-Nazis who are supposed to infest the network? And are they not frightened at the idea of seeing the actors of the Net discussing tomorrow live with the artists? At the Parliament of Strasbourg, Axelle Red was not alone. Luis Cobos, conductor and composer, as well as George Martin, former producer of the Beatles, accompanied her. And, if they were not at her side, Jean-Michel Jarre, Mylène Farmer, Pascal Obispo, Charles Aznavour or Eddy Mitchell have already played in front of the political tie-wearers the blues of the misdeeds of private copying. They also carry high the banner of the European Group of Societies of Authors and Composers (Gestac). But do these stars, who represent only themselves, not make magnificent decoys? Pretty instruments in the fingers of a lobby placed under the blessing of the major record labels? Why not ask the opinions of underground artists, techno weirdos and the vast majority of creators who don't make a living from their art and would have a hard time forming a pressure group? Even among the stars, opinions diverge. In the United States, Metallica musicians have testified against Napster, while Moby, Thom Yorke of Radiohead and Chuck D of Public Enemy have praised it. Prince, for his part, denounces "the hypocrisy of the industry which, pretending to defend music, only serves its profits", without the slightest respect for music lovers and fans who use Napster and sites specializing in mp3 to satisfy their passion and their "thirst for rarities"... As for Courtney Love, singer Hole, in a diatribe of remarkable precision published by the online magazine Salon, she pillories the "real pirates": not Napster and its followers but "the majors who make a fortune on the backs of artists", and in the process fatten a legion of useless intermediaries, from lawyers to "business managers"... Isn't the problem precisely that of the intermediaries? While the Net can make it possible to do without them in whole or in part, shouldn't labels, publishers, authors' societies, distributors, journalists and all professionals in the leisure sector ask themselves the question of their usefulness? Of their added value? Of their missions of selection, guide and relay, which suppose the love of music much more than the obsession of euros? Because, if he does not produce it himself, an artist earns only 5 to 8% of the price of his CD... Let's not delude ourselves: the thirst for free music on the Net is not going to die down any time soon, even if Napster, putting Bertelsmann in its engine, puts an end to free music and offers a paid subscription in the summer. Whether the copies are authorized or illegal, Bono of U2 rejoices at the idea of millions of young people exchanging and discovering new music through the network. But, where he balks is when Napster, a company as much as software, makes money and increases its stock price on the Nasdaq without paying the artists! In other words: should Napster not have been labeled and transformed into a public service like a free loan discotheque? As a music guide and a swap meet with no profit motive? And the 3.70 franc (0.56 euro) tax on blank CDs, which have many other uses than private (or pirated) copying of music or games? Here's an opportunity to be imaginative when it comes to copyright! The Sacem (Société des auteurs-compositeurs et éditeurs de musique), an old and opaque monster, redistributes the tax on cassettes in proportion to the artists' sales. Conclusion: if I follow its instructions, my free software, my copies of work or family photos on blank CDs risk filling the already heavy pockets of Michel Sardou and other Mylène Farmers, and I really don't want that at all! So why not use these sums, once again, in a public service logic? Why not use them to create historical and educational guides or resources dedicated to artists? To label enthusiast sites? Why not redistribute them to all artists, and even more so to young creation, without any relation to the sales that today justify the payment of all rights? So, yes, let's think about copyright, but as a diplomat rather than a cop, by opening up to Napster and its brothers Gnutella or Mojo Nation. Let's play the creators' card, Messrs. Jospin and Messier, but first of all of the young, the experimenters, of all those who are not profitable. Let artists not be robbed, but let public service projects be created for music lovers, researchers and explorers without chapels! Ariel Kyrou is associate director of Moderne Multimédias, columnist at France Culture and co-author of the book "Global Tekno" (Camion Blanc).

## ###ARTICLE\_START### ID:497

Is there still a future for Bull? Not many people answer this question positively. However, my answer is yes. I have difficulty imagining in this twenty-first century the future of a France that would no longer have any control over its IT industry. Bull must live and develop. Bull still has resources that remain exceptional to succeed despite all the past vicissitudes. The question, unfortunately still relevant today, is not new. When I was appointed President of Bull in 1982 by the Council of Ministers, the Minister of Industry admitted to me his surprise caused by the attitude of a majority of his colleagues. Although my appointment was hardly contested, several ministers present already doubted the future of Bull and suggested that the time had perhaps come for France to leave IT. I was certainly not the best choice for such a strategy. Indeed, in 1982, about twenty years ago, Bull's situation was not brilliant. The company was in a situation of bankruptcy with negative equity, losses representing about 15% of turnover, banks that were withdrawing, dysfunctions at all levels, a disastrous image of quality for both products and services. Bull knew how to react, define a strategy that broke with its past, and mobilize. Growth quickly came, as well as profitability and customer satisfaction. Five years later, Bull had reached global size by taking over the activities of its former majority shareholder, Honeywell. With Francis Lorentz, CEO, we were happy to see pride reborn among all our employees. Throughout its history, Bull has suffered from its shareholders. At certain times in its history, it is legitimate to think that it was rather the desire to close that motivated the owners. Bull's current shareholders seem to have once again abandoned the company, resigned from their responsibilities, resigned to letting it disappear. Bull is today the last European computer manufacturer, one of the few in the world to still have the skills to design and produce the high-performance, high-security servers that the industry expects. The means and resources to be mobilized are relatively low, compared to those that would have been necessary less than ten years ago. Bull can now rely on microprocessors on the market, produced by component manufacturers such as Intel and on free system software available free of charge on the Internet, rather than having to invest in developing all these technologies as in the past. Bull has also demonstrated its ability to provide systems integration services on the competitive market of very high quality and efficiency. Free software from Linux, developed by the Finn Linus Thorwald, is enjoying increasing success and is now increasingly preferred by large companies and administrations. This is an unprecedented opportunity to quickly and inexpensively regain control of computer technologies. If France loses its mastery of IT, its entire industry and economy will suffer the consequences. In a field where technologies are evolving so rapidly, you cannot master the use of the tool if you do not master the tool. The effects are already being felt in research. We no longer train systems architects or system software specialists. These skills are becoming rare on the market. It is not surprising that France is the red lantern in Europe in the use of the Internet. If the United States dominates all IT technologies today, it is the result of a will and an ambition that are neither republican nor democratic. It is the result of action carried out with determination and continuity under the constant direction of the Department of Defense by associating all federal agencies. France experienced an upturn in the second half of the 1970s under the impetus of the DGT (Directorate General of Telecommunications), which has since become France Télécom. In five years, we have caught up with a century of delay in the telephone, we have launched the Minitel, electronic switching, the Transpac network. Since the end of the 1980s, ambition has died. From a desire for leadership, we have moved on to follower attitudes. We let the European Commission spend billions of euros without a plan, without a strategy. Let us not delude ourselves, tomorrow, if we give up being a player in the IT industry, our defense will no longer have the means to guarantee our political independence. Let us remember, not so long ago, SGS-Thomson was condemned and Thomson Multimedia was not even worth 1 franc! Since then, these companies have proven their success on a global level. France is not too small to deserve a destiny in new technologies.

## ###ARTICLE\_START### ID:498

The disappointing Netscape 6.0 has a little brother: Mozilla. Developed in parallel in the open source code mode, this Internet browser is progressing slowly, and is announced as the true successor to Netscape Communicator 4.72. The most recent beta version (0.8), released a few days ago for Windows, Macintosh or Linux, already shows astonishing display speed. Freed from the promotional tabs for the services of the AOL-Tiime Warner empire that clutter Netscape 6, Mozilla keeps an almost identical interface, with in particular the large My Sidebar sidebar, now retractable, and customizable desktop themes. Not yet completely stable, Mozilla will nevertheless delight Netscape supporters. The English version can be downloaded from www.mozilla.org.

## ###ARTICLE\_START### ID:499

Quake II, the bloodiest of killing games that consists of shooting down everything that moves, disfigured, its apocalypse settings transformed into a harmless American canteen run by a pizza maker. Instead of terrifying cyborgs armed to the teeth, two clumsy rednecks in lumberjack shirts and suspenders looking for a job. The authors of this diversion, the New Yorkers of Ill Clan, use the capabilities of Id Software's action game to create their own 3D animations. Passionate about video games and theatrical improvisation (they met during improv matches on the New York asphalt), the six madmen of Ill Clan devote their free time to making films of a new genre combining their two favorite pastimes. They build new sets, create cartoonish characters that they import into the game, then improvise skits recorded in real time. "Quake II is a multiplayer game that allows several people to connect simultaneously in the same environment. We created a restaurant, we all connected to this place and we shot a game of Quake with our own characters," explains the mastermind of the group, Paul Marino, 35, aka Ill Robinson, an animation creator for fourteen years. A feat made possible by Uwe Girlich, a programmer near Munich. After having dissected Doom, in 1994, another cult massacre game, he hacked the code of the Quake demos. While you play a game, the game engine is able to record the scenes on the computer's hard drive. You can thus replay the film (the demo) of the best beatings. Uwe's work allows these scenes to be edited in the virtual environment of a 3D game. "I'm not interested in 'cracking' (1) games," insists the doctor in theoretical physics, "what I'm passionate about is using them for other purposes." According to him, it doesn't take several years or thousands of dollars to make an animated short. "There are plenty of free software programs to edit your own environments, create characters. Anyone, armed with a good script, can make their own little independent film." His research, viewed with suspicion by the game's developers, has led to the emergence of a new movement of directors, spearheaded by those of Ill Clan. This underground community of a dozen companies has its base on www.machinima.com, and is already at the head of more than eighty films (epics, comedies, action, including a remake of scenes from Matrix) where surprising special effects contrast with ridiculous budgets. After the success of Apartment Hunting, the first Ill Clan film made with the original version of Quake, where the two loser heroes, Larry and Lenny, were looking for an apartment, Hardly-Workin', the sequel to their adventures, has just won the prize for best film at the brand new Showtime Network festival (2), dedicated to the cream of independent productions. (1) Breaking the security of a game in hacker language. (2) http://alt.sho.com/content/winners\_2000.cfm

## ###ARTICLE\_START### ID:500

Year after year, the success of free software, and Linux in particular, is confirmed. The third edition of the Professional Exhibition of Free Software and Linux Solutions, which was recently held at the Cnit, in La Défense, brought together some 200 players from the Linux world and attracted more than 12,000 visitors. Linux is definitely no longer the somewhat confidential operating system defended by a community of passionate and somewhat marginal computer scientists. Thus, according to the American firm Week Research, from March 1999 to January 2000, the number of American companies using Linux more than doubled, going from 14% of users to 26%. Furthermore, an IDC survey shows that in the United States, Linux and free software now affect 21% of medium-sized companies in this country and 30% of large accounts, which challenges the received idea that the open operating system mainly concerns small structures. We see that an ever-increasing number of sectors are adopting Linux. For example, Internet access providers, finance, education, research, etc. Initially considered as an alternative to major proprietary operating systems such as Windows, Linux now seems to be positioning itself as a new link in technological development. If we consider its growth rate - for example, Linux server sales, according to an IDC study, increased by 54% in the second half of 2000 - we can assume that 2001 will be the year of the penguin (the Linux logo). A sure sign: all the major players in information technology are adopting Linux. Didn't Lou Gerstner, CEO of IBM, announce a few weeks ago an investment of one billion dollars in Linux for the coming year? Bull demonstrates that it is now possible to build real e-business solutions under Linux. A major European administration has ordered nearly 1,000 servers running Linux, which illustrates the change in mindset of large organizations. HP France, for its part, offers, with its partner Medasys, various new products based around six solution centers (back-office solutions, Internet/Intranet, scientific center, office automation center, advanced technology on HP 9000 server) illustrating the capacity of free software to meet the needs of its customers regardless of their sector of activity. "Clearly, Linux has entered the business market with a vengeance," notes Bernard Lang, research director at Inria and secretary of Aful (French-speaking Linux Users Association). For company or IT department managers, it is now playing in the big leagues. It took years to get started, but we can now see that the economic mechanisms justify the development of free software. If, in France as in the United States, many companies choose Linux, it is largely for reasons of security and independence. The traditional software economy tends, in fact, to create monopolistic situations. The arrival of Linux and free software in general contributes to reestablishing a competitive balance. We are also seeing a growth in service activities to the detriment of publishing activities. "A question arises, will there be a shortage of Linux specialists? In any case, the companies that provide training are overwhelmed with work.

## ###ARTICLE\_START### ID:501

In khaki pants and a raspberry polo shirt hugging his Buddha belly, the American Richard Stallman, 47, was the "guest star" of the Free Software Show that ended Friday at La Défense. In the 80s, Stallman laid the foundations of free software: an open computer program that can be copied, shared, modified. Some computer gurus pride themselves on not wearing a suit or tie. Stallman goes much further. His long hair drips down his shoulders, his beard is similar to that of a ZZ Top. He does not play the electric guitar but the pipe. Last year, his instrument in his mouth, he led around thirty computer scientists through the aisles of the show who sang behind him the song of the FSF (Freesoftwarefoundation), his movement. But this year, you really had to listen carefully to hear Stallman's little tune. Illustrious unknown. Free software has become a marketing argument: the big names in IT swear only by it and by Linux, the operating system created by the Finn Linus Torvalds. The name of Richard Stallman, a precursor of the free software movement, is fading into the background noise. However, "the spirit of free software is him," recalls a computer scientist. "Who knows Gnu today at this show? Everyone only talks about Linux. But without Gnu, Linux would not exist." On the exhibitors' stands, at IBM, at Oracle, few people actually know Richard Stallman. "He is a master thinker, a superior mind," his followers maintain. Obviously, he seems completely crazy. But if he weren't, he would never have been able to create what he created. Let's say the "Gnu" tools: the first to make computers talk to each other using software whose source code, the formula, is freely accessible (see box). In a word, the anti-patent. The very name Gnu (1) makes you smile. Like a huge snub to the software industry. As a result, at this computer show, two camps stand out, two worlds look at each other: on one side are those who know the guardians of the temple and on the other side the squatters-opportunists "who have smelled good business". Because administrations and multinationals are today fighting over free software. On the sidelines of the trade show, the purists came to listen to the "guide". Some took a day off to be sure not to miss Stallman. Many know the refrain by heart, but do not disdain a little reminder. Especially since the bearded American loves to put on a show. "I apologize for arriving so late," he begins in lovely French, and the audience is already won over. Stallman no longer designs computer tools today. He makes a living from the conferences he gives around the world, dispensing his good word. He shakes his long hair, smooths his beard. He takes off his shoes to tell how, as a young researcher in artificial intelligence at MIT (Massachusetts Institute of Technology), he developed the famous Gnu tools in the 1980s: "We shared our community's software, we went to the source code to correct errors, make improvements. I could live the life of the free and feel that it was good." Long hair. In the room, the faces are tense towards him. They are mainly students intrigued by this madman whose tools they use every day at university. There are also a few developers with long hair. And a few suits and ties who have come to hear a very particular sound of the bell. Stallman's soft voice doesn't seem to want to be silenced. He speaks for three hours, one of which is in French and without notes. The audience often laughs, nods in agreement, applauds. "This guy had the opportunity to live a dream life," says a neighbor in the chair. "He gave up fortune to live his ideal." Next to him, an ageless guy with burning eyes applauds wildly: "He's a brother," he says. The American regularly raises his arms like a prophet. At length, on several occasions, he appeals to the conscience of computer scientists: "Let's invent a new lifestyle where we don't waste our skills but where, on the contrary, we pool them to create a better world. Knowledge is part of the heritage of humanity. Don't agree to work for those who block the development of knowledge." He also says: "Earning a living by developing the free world is a duty when you have the knowledge to do so." And also: "Freedom is the opposite of mystery and secrecy. Let us choose the spirit of mutual aid." In the audience, a computer scientist stands up to testify: all the computers in his company operate freely. Stallman, who has just put on a tunic and is holding a hard drive above his head that forms a halo around him, applauds in turn and shouts: "A saint, a saint!" The room is hilarious. As they leave, faces are lit up, spirits float above the daily grind. "We can deplore his way of doing things, or his style," comments a computer scientist. "Nevertheless, from a purely technical point of view, what he invented is absolutely fantastic." (1) Which comes from a computer scientist joke that takes too long to explain.

## ###ARTICLE\_START### ID:502

Stallman is not just a gifted programmer. In this case, it is on the legal terrain that he has managed to impose his curious model of free software. "Classic" programs are protected by patents and licenses that are very restrictive for the user: it is impossible to copy them, modify them, or rummage around inside them. As a result, Stallman invented his own license: the GNU Public License (GPL) which, attached to a software, guarantees the user that he can adapt it to his needs, copy it, and redistribute it. Even sell it, on condition that the GPL is affixed to the resulting product. This is called "copyleft" (as opposed to copyright), which could be translated into French as "author's left".

## ###ARTICLE\_START### ID:503

Free Software According to the FreeSoftwareFoundation, three criteria define free software (open source): the freedom to study how the program works and to adapt it to one's needs, the freedom to copy and distribute it, and the freedom to improve it. It is provided with its source code. Proprietary software Software whose source code is translated into executable code (understandable only by the computer) and which requires the acquisition of a license, most often paid, for its use. It can only be modified by its designers; its distribution and redistribution are prohibited (apart from authorized resellers). Source code "Recipe" of a software, that is to say a series of codes making up the program. Public domain software Software whose author has waived his rights and which can be used without a license to form the basis of proprietary software. Shareware Proprietary software whose use is subject to payment from the program designer after a free trial period (shareware). It is often sold on the Internet, which makes it cheaper. Software distributed free of charge (freeware), downloadable from the Internet or available in the form of CD-ROM. Free software is not always free, just as proprietary software is not always paid.

## ###ARTICLE\_START### ID:504

It is fashionable, especially since the IPO of RedHat, one of the main distributors of the GNU/Linux operating system, to be ironic about the ease with which the apostles of free software have converted to the market economy. The immense success achieved against all expectations by this operating system incites more than one to rave with compassion about the naivety of those who believed to see in the promoters of free software the "new rebels", the vanguard of a libertarian revolution in the era of global e-business. These augurs, who never stop prophesying the end of the development of free software, are upset that the largest companies in the world and the administrations of many States choose to use the Linux kernel and GNU tools to equip their servers; thus opting for reliable, modular and infinitely duplicable IT solutions. This astonishment stems from a singular lack of understanding of what is at work today in the free software movement. It is due to the fact that, since the mid-1990s, Linux and the free software movement as a whole have been presented by many, particularly in France, as the symbol of resistance to the monopolistic hold of the giant Microsoft on global computing. The shortcut being the shortest path from one point to another, there was only one step to take from anti-Microsoft to anti-capitalism. The free software movement, completely emptied of its substance, has become an emblem: that of resistance to capitalism. It is nevertheless appropriate to recall that the world of free software and in particular Richard Stallman, its founder, have always refuted this proximity, even if conflictual, with the Microsoft company. For Stallman, free software and Microsoft are two radically different things, which bear no comparison. In the same way, and despite these numerous phenomena of imposition linked to the construction of Linux as a media object, it is almost impossible to find, in the corpus of texts emanating from the main leaders of this community, the slightest revolutionary indictment explicitly calling for an overthrow of the system. One of the very components of this movement gravitating around free software, the OpenSource movement, led by Eric S. Raymond and many companies in the sector, including Netscape and more recently IBM, explicitly claims its direct affiliation with liberal theses. It seems difficult to adhere to this romantic caricature straight out of a Dostoyevsky novel, making free software developers a band of anarchists secretly plotting in their cellars against power and today seduced by the lure of gain. But let us not be mistaken: through its criticism of monopolies based exclusively on criteria of financial profitability, the free software movement today questions the very foundations of the capitalist system. This movement raises fundamental questions and highlights certain contradictions about the status of property, merchandise and production in the era of the immaterial. By decentering the issue of value, thus basing it on freedom of movement and the community sharing of knowledge and understanding, it contributes to destabilizing these famous natural laws of the economy and perhaps reactivates this old utopia of the free association of producers.

## ###ARTICLE\_START### ID:505

Failing to have been able to conquer the general public, Linux and its ilk are seducing French administrations The report on "electronic administration", commissioned by Lionel Jospin last June, should be submitted in the next few days. Thierry Carcenac, PS deputy for Tarn, was in fact putting the finishing touches to it, a few days before the opening, in Paris, of the now traditional Linux Expo (from January 31 to February 2, at the CNIT de la Défense). Simple concordance of times? The document should in any case give pride of place to free software. In accordance with the mission letter: "You will examine in particular the interest of free software, which is characterized by the publicity of its source code and its cooperative development mode, and the means of promoting, where appropriate, its use and development in administrations", specified Lionel Jospin. The tone was set. He was merely confirming a trend that was probably inevitable: free software, whose source code can be used by everyone (open source), is taking its ease under the gold of the Republic. In a message addressed on January 19, 2001 to the Sophia-Antipolis Foundation, on the occasion of a conference "Use and promotion of free software", Michel Sapin, Minister of Civil Service and State Reform, noted that "public administrations, whether they are of the State or of local authorities, participate in the rapid growth of free software in France". Ministries of culture, defense and national education, general tax directorate, criminal records: there are countless institutions that opt for free software. "We do not want to move towards recommendations that would be imperative and that would tie up the administration, however, specifies Thierry Carcenac. We want to lead it, within the framework of its IT plans, to open a reflection on free software and to make its choices." The habit is taken. And open source does not seem about to dry up in administrations. On the contrary. "It is spreading according to a viral propagation mode," notes Marc Peltier, director of services at MandrakSoft, French Linux publisher. The breeding ground is in any case fertile in ministerial offices, where many graduates of the École Normale Supérieure have been trained in the subtleties of Unix, the Linux kernel. The advocates of free software have therefore found more than attentive ears there. Economic considerations; the episode of the Y2K bug, which highlighted how IT services found themselves tied hand and foot to their service providers; the "hand given back" to the user; the adhesion of the big names in IT to Linux: there is no shortage of arguments to try to convince even the most reluctant. "Finally, why not say it, cooperative development, which is the characteristic of free software, transparency and mutualization, which are at the base of their creation, are values that we share", Michel Sapin emphasized. Linux, suddenly, is on the rise. To the point of considering kicking Microsoft out of the Republic. Within five years, the Ministry of Culture thus plans to be 100% "free". Others will perhaps follow. To the point that proprietary software, as Marc Peltier prophesies, will perhaps remain as "a parenthesis of history".

## ###ARTICLE\_START### ID:506

Free software attracts the interest of schools It is a fact that "free" has yet to learn its trade. It is indeed clear that most primary and secondary school pupils are, as part of their introduction to computing, more accustomed to using proprietary software (Windows, Word, Mac, etc.) than their "free" equivalents. And yet, between school and "free", there is more than one common thread, the advocates of free software constantly argue. A question of morality, if not of economy. Should we only teach children how to use a tool duly stamped with a commercial logo or should we rather teach them autonomy and versatility? "This is a field, as in administrations, where we must ensure the durability of documents over very long periods", notes Roberto Di Cosmo, professor of computer science at the University of Paris-VII. What would happen, in this way, if tomorrow a publisher no longer ensured the marketing of the software used to save all these documents? In the education system, the interest in free software is not new. In October 1998, the Ministry of National Education, Research and Technology signed a framework agreement with the French-speaking Association of Linux and Free Software Users (AFUL), concerning the "deployment of free computing in the French education system". The agreement provides, among other things, "AFUL's support for projects to network high schools, colleges and schools, using () free software" and "AFUL's technical and educational assistance () for the training of national education personnel". local initiatives Declarations of good intentions? The initiatives that do see the light of day are in any case often launched at the local level. Recently set up by the Seine-et-Marne general council, a project aims to connect a hundred or so middle schools in the department to the Internet using open source solutions. The computers, installed in 14 pilot establishments, already operate on a dual-boot basis. It is thus possible to choose the operating system that will drive the open session: Linux or Windows. The Grenoble Academy has for its part launched a vast enterprise of connecting all the establishments in the academy to the Network via Linux. "It is a simple question of equality between students from different social classes," argues Thierry Stoehr, head of the education market at Linbox, a service company specializing in open source computing. A student who has done work in class can very well go home with his floppy disk and consult this data at home without having to buy software." A document saved in Word format (the most commonly used word processor) as part of a course can only be used by this software. And therefore implies, on the part of the student or his family, the purchase of this same program. Free software, if it can promote equality before the computer tool, also presents a real interest for the establishments themselves. The costly operating licenses that they must buy from publishers could, in the future, weigh heavily in favor of "free". On the scale of a large university, "it is approximately 2 million francs that are paid to Microsoft each year", underlines a manager of Paris X-Nanterre. Which, in a universe where the negotiation of budgets is often done with knives drawn, makes some teeth grind. But nothing is simple. Installing, for example, Linux on computers intended for students implies the compatibility of the software used by the teacher. This is mainly where the shoe pinches. Because, today, Thierry Stoehr points out, "the number of educational software compatible with Windows is infinitely greater than those that can be installed on Linux". A particularly glaring lack in the field of encyclopedias. "On the other hand, continues Thierry Stoehr, all the computer skills required within the framework of the 'Computer and Internet Certificate' [B2I, compulsory since March 2000 for primary school pupils] can be acquired on free software." However, it is by bypassing the framework of school education that "free" could most successfully force the door of the education system. In particular by investing in the network infrastructures of establishments, the administration or the management of libraries. "The [proprietary] software that we use to manage and reference our works is not specifically adapted to our use, explains the director of a large Parisian university library. And if we want to change the interface, we have to contact a 'user committee'... We are tied hand and foot!" Conversely, and by definition, the open source code of any free software allows the adaptation of all functionalities, without the need for authorization. citizens or consumers? The introduction of free software in schools also poses deeper problems in terms of education. Computer science, at least in primary school, is not taught as such, but as a tool used in other subjects. "The problem is whether schools should train citizens or consumers!" insist the promoters of "free". For them, the school must allow students to acquire a "computer culture" and not just the basic functions of this or that tool, whether it is dominant on the market or not. A project that is a challenge. "Today, confides an AFUL manager, 80% of teachers are not sufficiently aware of these issues." And most, no doubt, do not distinguish between free software and others... Introducing "free" software into schools also means explaining what it is... and what it is not.

## ###ARTICLE\_START### ID:507

RichardStallman At the MIT Artificial Intelligence Laboratory in Cambridge (USA), he joined a software sharing community. After the protection measures of software manufacturers, he launched the GNU Project in 1984, in order to develop free software. Bob Young He is the American CEO of Red Hat, founded in 1994, the most famous and largest distribution company for the Linux operating system. "Free software gives back to the customers of the computer industry a power that had been confiscated from them." Linus Thorvald This Finnish student was interested in Minix, a small version of the Unix system. He developed it in 1991 to launch version 1.0 of Linux in 1994. A version 2.4 of this operating system was to be launched in January 2001. Roberto Di Cosmo Professor at Paris-VII, he is the author of the book Le Hold-Up planétaire (Calmann-Lévy, 1998), a diatribe against Microsoft, and has just designed a demonstration version of Linux on a free CD-ROM with Vincent Balat and Jean-Vincent Loddo. Bernard Lang This research director at Inria, member of ISOC and AFUL, fights the abuse of copyright and works for a "free, open and democratic approach, which has made the success of the Internet", notably through the defense of free software. Richard Barbrook English sociologist from the Hypermedia Research Centre at the University of Westminster, he denounced in 1997, in The Californian Ideology, the latter's stranglehold on cyberspace. He advocates for an alternative European model.

## ###ARTICLE\_START### ID:508

Member of Parliament (PS) for Tarn, you chaired a fact-finding mission on information systems in the administration, which ended in December 2000 and whose conclusions will be delivered at the beginning of February 2001. What is your feeling about the place that free software should have in the administration? First, I think that the administration is always a little afraid of what is new... The first tendency is of course to say that it is more practical and more reassuring to buy the proprietary software delivered with the hardware that one acquires. Also, even if we were inspired by the Le Déaut bill [filed on May 30, 2000 by Jean-Yves Le Déaut, PS MP for Meurthe-et-Moselle, the bill aims to impose the use of free software on all administrations, Editor's note], we do not wish to move towards imperative recommendations that would totally tie up the administration. We want to encourage it, as part of its IT plans, to open a discussion on free software and to make its choices. Administrations have already made these choices of their own accord. I am thinking in particular of the ministries of national education, culture and more recently of the economy and finance, which have acquired free software. We must, without imposing too many constraints, move in the direction of free software. Have you studied the economic equation of the problem? Can we quantify the savings that would be made if the use of free software became widespread? Not precisely. Within administrations, each decentralized department has a budget envelope. Hardware acquisitions are made at the level of each department. Even within these departments, the person who makes the purchase at the end of the day is left free to make their own choices. Quantifying IT expenditure very precisely is particularly complicated. But we must not forget that free software does not necessarily mean free! Installation, updating, training, advice... For all this, you have to call on companies. Isn't it annoying to store all these administrative documents using commercial software? In doing so, isn't the administration giving up part of the ownership of these documents? On the one hand, there is the concern that, behind proprietary software, there are gateways allowing certain people to have an eye on the administration's data. But there are people who work on this specific point, particularly in the army... The problem is more complicated than it seems. For example, Microsoft gives us access to all the elements that allow us to see what is in its software. On the other hand, some large groups, such as IBM, seem to want to move towards free software. It is therefore not so simple to oppose free software and proprietary software on this point.

## ###ARTICLE\_START### ID:509

Having entered government departments through the back door, free software is now recommended there On January 19, 2001, during a conference organized in Sophia-Antipolis, Michel Sapin, Minister of Civil Service and State Reform, spoke out in favor of free software. He emphasized its "rapid growth" in government departments and encouraged its development. Because, beyond the free nature, openness and security that he considered responsible for its initial successes, Michel Sapin saw in the cooperative, mutual and transparent development of this software a model for successfully carrying out state reform. This recognition came at just the right time, a few days after the misstep of Catherine Tasca, Minister of Culture, who had raised the idea of a tax on computers and had provoked the anger of associations campaigning for free software. This consecration also came a year after the announcement of the conversion to Linux of the services of the Ministry of Culture. In the meantime, other administrations had announced their move to free software, such as the General Directorate of Taxes, in December 2000. Shortly after the launch by the MTIC (Interministerial Mission for Technical Support for the Development of Information and Communication Technologies in the Administration) of a site dedicated to the use of free software in the administration: the bouquet du libre. Laurent Rieunneau, at the National Criminal Records Office, explains how, with a very limited budget, he was able to set up an intranet with software such as Apache and Samba and a language such as Perl. All available free of charge. Didier Georgieff and Thierry Barthélémy, project leaders of the territorial information system (SIT) of Bas-Rhin, praise the merits of Zope, an application server. So what had happened in a year for people to swear only by free software? Had free software associations been particularly active during this period? Did it simply take a certain amount of time for ideas defended by civil servants like Jean-Paul Baquiast, author of a report on the modernization of the State and founder of the Admiroutes association, to gain ground? Perhaps. But perhaps free software also needed to assert itself, to move "from utopia to the market." "We waited until there was a software support offer," explains Bruno Mannoni, head of the organization and information systems department at the Ministry of Culture. A pioneer of the Net, he was a member of ISOC (Internet Society) from the early 1990s and led distance learning workshops in developing countries, where free systems had the advantage of being inexpensive and able to run on recovered hardware. But, he continues, if Linux and free software have the power to motivate computer scientists by offering them the possibility of finding a solution to information system problems themselves, "do-it-yourself" remains very theoretical. "There are several million lines of source code," he says. "Intervening alone requires time and skills." Hence the interest in equipping oneself with a "parachute" or "life insurance" such as software support. "We found ourselves in the right place at the right time," says Jean-Pierre Laisné, CEO of Linbox, the company chosen by the General Directorate of Taxes to install Linux on its servers. Co-founder of AFUL (Association francophone des utilisateurs de Linux et des logiciellibres), he thus confirms the words of Bernard Lang, research director at Inria and secretary of the association. "In administrations as in companies, Linux arrived from the bottom up," he says. It was the individuals who used it at home who brought it to work. As one of the concerns of administrations is to be able to reread archives, free software, by allowing work independently of formats and tools, found interlocutors on their level." But it is also because free software had started with infiltration that AFUL wanted to be visible from its creation in May 1998. "We chose to have companies as members and we set ourselves the goal of speaking to the press, politicians and companies," explains Bernard Lang. Then, contacts were established with the offices of the ministries, resulting in the case of national education in a framework agreement that placed AFUL on an equal footing with other suppliers. And it is undoubtedly there that the network formed by AFUL and APRIL (Association for Research in Free Computing) crossed paths with another: that of the students of the École Normale Supérieure. "From the beginning of schooling, there is training in the Internet and the Unix universe at École Normale Supérieure," explains Jean-Paul Smets, a former student of the Drire Lorraine, whose name is often cited in the administration's free software experiments. However, many technical advisors to ministers are students of the École Normale Supérieure. And they are undoubtedly the only ones, among the thirty-somethings, to have an Internet and free software culture that dates back to their studies." However, the École Normale Supérieure network is neither unique nor isolated. Among the engineers of the Mines, we also find names famous for the French Internet users of the first hour: Christian Sherer, who launched the experiment of the Cahiers de doléances, and his accomplice, Jean-Michel Yolin. And if we add to these networks, sensitive to the interest of free software, the presence of favorable environments, like that of the Loria (Laboratoire lorrain de recherche en informatique et ses applications) for the Drire Lorraine, it becomes easy to understand how free software found relays and spread in the administration to find the opportunity to prove itself there.

## ###ARTICLE\_START### ID:510

1999 was the year of the breakthrough and 2000 was the year of standardization The place of free softwareTable 1 THE PLACE OF FREE SOFTWARE Prospects for the penetration of global license sales 2000 2001 2002 2003 2004 On the PC 1% 2% 3% 4% 5% On servers 1% 2% 5% 10% 18% Web server 3% 12% 31% 50% 59% Development tools 0% 1% 1% 3% 5% Database server 0% 1% 1% 1% 2% Messaging software 0% 0% 0% 1% 1% Source: Forrester Research In less than two years, free software has become a social phenomenon. The year 1999 was the year of the breakthrough and 2000 was the year of standardization. In 1999, Red Hat and VA Linux made spectacular debuts on the Nasdaq. The former saw its stock increase by more than 270% on its first day of trading, on August 11, 1999, the latter by 698% on December 9, 1999. But in 2000, the speculative bubble around Linux deflated, the stock prices of these two companies collapsed. From then on, Linuxcare and Turbo Linux, two Linux publishers, learned their lessons and postponed their IPO indefinitely. This did not prevent the major suppliers of infrastructure for companies from rallying to Linux. Dell notably took a stake in Red Hat, Sun bought Cobalt, a supplier of Linux servers, but it was IBM that made the biggest effort. The manufacturer has put Linux at the heart of all its ranges, from mainframes to Intel-based servers, including software. For Steve Solazzo, vice president in charge of Linux sales and marketing at IBM, the market is maturing. "You can run almost all the applications in the company with Linux," he explains. The global IT giant has committed to investing $1 billion to support Linux in 2001. Does this rally mean that companies are massively adopting Linux? Nothing is less certain. However, a few are pioneers. Shell uses a set of 1,024 Linux servers for its oil research, the Scandinavian operator Telia is replacing its servers with a Linux mainframe and the Japanese distribution chain Lawson equips 7,600 of its stores with 15,000 Linux machines. "It's only a small step from there to considering that Linux will dislodge other operating systems," explains Carl Howe, an analyst at Forrester Research. "But taking that step would still be premature." A study on free software conducted by American analysts at Forrester Research indicates in any case that a little over half (56%) of the world's major groups use free software. And, in 2004, the Linux platform should represent 20% of software sales. As Forrester Research analysts point out, "open software interests most companies, especially for their Internet infrastructures, because it allows them to reduce costs and is more reliable in terms of security, but none is ready to base all of its activity on this free software alone." Nevertheless, this major change, the development of associated services and the resulting sustainability are enough to reassure not only companies, but also institutions that might still be hesitant.

## ###ARTICLE\_START### ID:511

SOISSONS (Aisne) from our special correspondent - Some 56,000 inhabitants, 12.9% unemployment, one of the highest rates in France. Soissons is economically depressed. How to get out of it? By making this city the capital of free software in France. In front of an audience of elected officials and representatives of the administration, the agglomeration inaugurated, on January 11, 2001, the "Technopole of free software". In fact, a technopole, it is an association of 1901 composed of four permanent members, including the director, Philippe Carpentier. "We offer technical assistance and other facilities to attract companies operating in the new technologies sector to us," he summarizes. Why free software? "It's an opportunity for all companies. Free software allows you to automate or computerize services at much lower costs," explains Philippe Carpentier. "And even if I'm an industrialist in a traditional sector, the products I'm going to develop are going to have an increasingly large share of IT. If I work with proprietary software, I'm going to have to pay for licenses. On the other hand, if I use free software, I amortize my production costs," he continues. Where did the idea come from? The closure of the Volber factory, a subsidiary of Michelin, two years ago was a shock for the city. But "it was a salutary electroshock," recalls the director of the technology park. And he added: "Everyone in Soissons understood that the basin was stuck in a traditional industry, and that for twenty years there had been no attempt at economic development in the region." The sub-prefecture had then created a "Soissonnais development committee", responsible for thinking about promising sectors that could revive the local economy. What could be more natural than to launch into the new economy, but this sector already seemed saturated. To stand out from other territories, Soissons chose free software. Hence the creation of the technology park, with financial support (around 1 million francs) from the municipality, the department and the region. "In our territory, there are people who know, master free software, and who believe in it. But above all, it is a marketing approach, says Philippe Carpentier, if we communicate on free software, we will perhaps only reach 3% of business leaders, but these 3% know the world of Linux and would be really interested in our services."

## ###ARTICLE\_START### ID:512

www.april.org The Association for the Promotion and Research in Free Computing is at the forefront every time it considers that computer freedom is in danger, whether it is the short-lived "Tascataxe" or the patenting of software. The site serves as both an educational and proselytizing tool by presenting the historical path of free software and the many manifestations associated with it. www.aful.org The French-speaking Association of Linux and Free Software Users is particularly active in defending its hobby horse, and does not hesitate to make big splashes such as patenting software ensuring the transition to a 35-hour week in companies to demonstrate its absurdity. Events, information and press reviews complete this flagship site. www.mtic.pm.gouv.fr/bouquet-libre As a sign of the institutionalization of free software, the government has dedicated a page to it under the aegis of the MTIC (Interministerial Mission for Technical Support for the Development of Information and Communication Technologies in the Administration). Its objective is essentially to disseminate free software in government departments. www.illico.org This site, dedicated to the Internet and free software in local authorities, aims to generate testimonials of experiences concerning their implementation in these communities. It also leads a reflection on the methods allowing a painless transition from proprietary IT to a coherent and free information system.

## ###ARTICLE\_START### ID:513

Porto Alegre special correspondent Will seeds one day be declared part of the heritage of humanity? At the World Social Forum in Porto Alegre, this idea is gaining ground and is gaining support from a growing number of social movements and NGOs. "To oppose the logic of patents on plants, we must practice the free exchange of seeds," says Laercio Meirelles, an agronomist with the Brazilian NGO Ipê, which specializes in protecting biodiversity. "I must be able to take a few seeds from a corn crop that I find in Peru, plant them in Brazil to see if they are productive, and vice versa. It is the same logic as that of free software. In addition, seeds reflect the culture of farmers. They evolve according to their agricultural techniques and the rhythm of sowing. A seed used today will be different in fifty years. It is therefore a living heritage of humanity." Biodiversity. In the late 1980s, 30 Brazilian NGOs formed an exchange network, the Alternative Technology Project (PTA). Based in the Gaucha mountain range in southern Brazil, the Ipê NGO saved several varieties of seeds, such as the feisao (the bean seed, the staple of the Brazilian diet) and olho de cabraî (goat's eye), from which only a handful of seeds remained. These were replanted, multiplied and then distributed to several farmers' associations in the region. "At university, I learned that there are about twenty varieties of feisao," explains Laercio. "But at Ipê, we have counted more than 150!" The main threat comes from the concentration of distribution. In commerce, there are only 3 or 4 types of feisao. The farmers have had to create their own outlets in organic produce markets, including the Saturday one in Porto Alegre. They sell their produce there without intermediaries. "Frankenstein seeds." The defense of traditional seeds has gained new momentum in the last two years, since the government of the state of Rio Grande do Sul and the Landless Peasants' Movement launched a fight against transgenic seeds. On Thursday evening, a thousand peasant activists invaded Monsanto's transgenic research and production center, 300 kilometers from Porto Alegre. This peaceful and temporary occupation aimed to draw the attention of the press present at the forum to the fight against "Frankenstein seeds." "We must not only say no to transgenics," assures Laercio, "we must also say yes to biodiversity."

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The creators of Div X, the equivalent of MP3 for video, have decided to make the code of their software public in order to stimulate its use. Allowing the relatively rapid exchange of quality video files, DivX technology worries the film industry. Its transition to open source could lead to the creation of Napster-type sites for video.

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## ###ARTICLE\_START### ID:519

Linux and free software are not only spreading in research centers and businesses. Slowly but surely, they are making their way into the administration. In December, the General Directorate of Taxes announced the equipment of 650 servers (computers used to store data). As for the Ministry of Culture, it is in the process of adopting Linux for all of its servers, i.e. 400 machines, three-quarters of which are in the provinces. The ministry's Intranet (internal network) server already runs on Linux. Reliability. The first advantage, explains Bruno Mannoni, head of IT at Culture, "Linux is remarkably reliable; it's no comparison compared to Windows NT, which crashes once or twice a week." Like the latter, the server version of Microsoft's flagship software, Linux is an operating system (software that is the basis for the operation of a computer). But the comparison ends there. Free software - including Linux - is characterized by unhindered distribution: anyone can copy and use it freely. Hence "a much lower cost, since we don't have to pay a license," explains Bruno Mannoni. In addition, this software, designed by volunteer computer scientists working in a network, is distributed with the source code, that is to say the manufacturing secrets (the equivalent of the score for a musical work). Therefore, anyone can freely modify it, suggest improvements or adapt it to their needs. "The risk of having back doors (security flaws, editor's note) or viruses is much lower," estimates Bruno Mannoni. More discreetly, Linux and other free software (especially Apache which runs more than half of the world's web servers) are infiltrating other ministries, notably those of National Education and Defense. Their use is supported by Matignon, through one of its departments which has dedicated a site to them (1). Entitled "Le bouquet du libre", it aims to "provide government departments, local authorities and public institutions with information useful for developing the use of free software". It contains stories of experiences, for example that of the installation of an intranet at the National Criminal Records Office. This government department had old, low-performance microcomputers and limited financial resources for its IT, so "free software was more or less the only option", says Laurent Rieuneau, the project manager. While the latest versions of proprietary software are generally designed to work with state-of-the-art machines, free software can make do with old equipment. "You can run Linux on a 386 (a type of PC sold in the early 1990s, editor's note) that is now worth 200 francs second-hand", observes Bruno Mannoni. Mission. In June, Lionel Jospin commissioned PS MP Thierry Carcenac to produce a report on the implementation of "electronic administration". 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Does the new economy create new monopolies and, therefore, risks of new inequalities? The Microsoft trial, the merger of AOL and Time Warner, Cisco's dominant position in Internet equipment have sown doubt. They are forcing economists to dust off the classic theories on monopolies that the wave of deregulation had thrown into the dustbin of history. "The new technology industry is based on a development model conducive to monopolies," estimated Michel Volle, economist, at the last conference of the Institute of Audiovisual and Telecommunications in Europe (Idate). "All costs are spent at the beginning, during the initial development or production phase, while subsequently the marginal production costs of each unit are zero," he explained. A situation that leads companies to erect barriers to entry in order to have time to amortize their initial costs. Implementing highly aggressive or highly differentiated marketing can strengthen the "natural barrier" that investment costs constitute. In return, they can freely set their sales prices, thus moving away from the perfect competition model where each product is sold at marginal cost. This is the case in the software industry, where almost all of the investment is devoted to developing a new program, while duplicating it on a CD-Rom to market it costs nothing. The sales price is then calculated to maximize sales and profits. This challenge to the classic model is tending to spread to all industrial sectors. The Microsoft trial has shed light on some of these practices aimed at establishing or protecting these new monopolies. The world's number one software company has thus ensured that it combines several complementary activities (operating system, office software and, more recently, Internet browser) to establish a "strategic barrier", according to the expression of economist Daniel Cohen, who recalls the argument of Microsoft's lawyers according to which "to amortize research and development costs, a firm in the new economy must absolutely benefit from a situational rent; the sector cannot be competitive in the usual sense of the term". DISAPPEARANCE OF INTERMEDIARIES On the same model, the Internet access provider AOL is trying, with the acquisition of Time Warner, to couple the container and the content, to make the subscriber consume "in-house products". And the giant Intel was the first to understand the need for high-tech industries to adopt mass communication to distance itself from its potential competitors: it is the famous slogan "Intel inside" which obliges consumers to take an interest in the content of their computer and to remember the name of one of the computer manufacturers' subcontractors. "The question today is whether natural monopolies are not being reconstituted, in a form different from public exploitation," wondered Christian Stoffaes, associate professor at Paris IX-Dauphine, during a recent conference as part of the University of All Knowledge. In an attempt to limit the obvious excesses of these rent-seeking situations (Microsoft generates a net profit equal to more than 40% of its turnover!), States have given up on nationalizing monopolies, a technique that allowed the community to appropriate the rent from increasing returns. Anglo-Saxon liberalism prefers regulation and regulation to nationalization. "Since competition does not occur naturally there, it must be constantly monitored," explains Christian Stoffaes. The American antitrust authorities, and more recently their European counterparts, have taken on this role. At the same time, it seems that the new economy is also secreting its own antidotes. This new world of unlimited networks and connections is not conducive to rent-seeking and monopoly situations. We are already seeing the gradual disappearance of intermediaries and wholesalers in many sectors. The new economy is also considerably accelerating economic cycles. Cisco has become, in just a few years, the third largest company in the world in terms of stock market capitalization, ahead of its historical competitors Lucent and Alcatel. At the very moment when it could be accused of monopolistic positions on Internet network equipment, it is seeing its positions challenged by quasi-start-ups like Juniper. If the new economy is creating monopolies, their lifespan seems to be getting shorter and shorter. Another change: the Net economy is putting the human factor back on the front burner, since gray matter is, along with capital, the other engine of its growth. Innovation is therefore no longer necessarily on the side of the richest. If Microsoft has managed to maintain its monopoly, it has not been at the origin of the latest software innovations. FREESOFTWARE Finally, connecting all the individuals on the planet gives rise to new forms of exchange and new modes of production. The tremendous success of free software, and in particular the Linux operating system, a competitor to Windows, is as much an economic as a sociological phenomenon: this neocommunitarianism allows thousands of programmers to pool their research, outside of any commercial exchange. For all these reasons, Microsoft or Intel are paradoxically less powerful today than they were two or three years ago. Their mediocre stock market performance illustrates this. This new economic model, where all costs are spent before the first product has been sold, presents maximum risk for the company, but also opportunities for huge gains for its shareholders in the event of success. The potential for valuing companies in the new economy is enormous, as are the risks of failure and disappointment.

## ###ARTICLE\_START### ID:524

This time it's done: the Brun-Buisson commission ruled last Thursday on the amount of the private copying levy. It will therefore cost 4.43 F for recordable CDs dedicated to music and 2.57 F for recordable data CDs. Video media are more affected by this measure since the levy will amount to 29.60 F for recordable DVDs of 180 min and 69.07 F for DVHS of 420 min. The commission, which also included digital media used in MP3 players, took the opportunity to reassess the levy on analog media which had not changed since 1986: it thus increases to 2.24 F per hour for audio cassettes and 3.36 F per hour for video cassettes. By March 31, the commission should look into the case of media intended for audio and video recording in consumer and computer equipment. The remuneration for private copying, provided for in Article L. 311-5 of the Intellectual Property Code, is intended to compensate for the loss of income of musicians and producers paid by copyright or reproduction rights. Collected by Sorecop for audio media and by Copie France for video, this royalty will be paid by the rights management organizations (Adami, Spedidam, SCPP, SPPF, Sacem). Half of it will go to the authors. While consumers fear an increase in the price of CD-Rs and CD-RWs, some members of the commission point out that the remuneration on audio and video cassettes, instituted by the Lang law of 1985, has not been reflected in the sale price of these media. "Which means that sellers had enough margin," says a representative of Sorecop who predicts that the same phenomenon will occur for digital media. Several petitions are circulating, particularly on the Internet, to denounce this measure, which is considered unfair for all those who use blank CDs as a means of archiving or to distribute free software. "It is impossible to know what use a medium purchased by an individual will be put to," said a member of the commission. "But it is because many C4Ds are not used for copying that we have limited ourselves to 2.57 F."

## ###ARTICLE\_START### ID:525

It's a boy with long hair, held back by an elastic band, who receives at his workplace, on the 27th floor of the Pleyel tower, on the edge of the ring road. At Alcove, an IT services company, Frédéric Couchet, 30, is an engineer. He wears neither shirt nor tie, but a black T-shirt, emblazoned with a strange logo that evokes nothing familiar. "Would you like a glass of champagne?" he says, because there's a drink tonight. Fine. Behind him, his employer's slogan is spread out on the walls: "Computing is free." But of what? The boy then slips into his role as an activist. He chairs the Association for the Promotion and Research in Free Computing (April), one of those that shakes up ideas in the world of computing. In fact, he readily sees himself as a lobbyist. He has been an activist for a while, even if few people know about his movement yet. Surrounded by a few members, he makes a brief clarification. "We defend the idea of intellectual property against that of intellectual appropriation, which is currently rampant in the IT world, through the multiplication of patent applications on software," he explains with the ultra-fast flow of someone who has a lot to say. "We are witnessing the capture of knowledge by private companies, because knowledge is becoming a commodity that can bring in a lot of money, especially at the dawn of e-commerce. But knowledge, ideas, belong to everyone." He takes the example of the "save as" key on office software: individuals would do anything to patent what is a priori only a function. In doing so, we force all those who use it to pay... "I am not trying to politicize the association," Couchet defends himself. "But things are happening that push us to act, to fight to defend citizens' ideas. Because it is, after all, a social issue." The "Gnu" ancestor. The European Convention of Munich (1973) specifies that computer programs are excluded from patentability. But, in recent years, exceptions have multiplied (Libération, September 8). "We are not a group of computer scientists who think in isolation. We can act. We have a lot to learn from those who have been acting as sentinels for a long time." April has just contacted Attac (1), as with Act Up. Why them? "In the case of AIDS, people are going to die because of this intellectual capture that is also taking place through pharmaceutical patents that are fattening small private firms." Frédéric Couchet has not always been an activist. Bac C, DUT (University Diploma of Technology) in electrical engineering, then the faculty of Paris VIII-Saint-Denis, with his nose in maths. In 1990, the Linux system did not yet exist, but its ancestor equipped the computers of apprentice researchers: the "Gnu" tools (2). "We often spent the night at the university because it was so great: a collaborative model where everyone contributes their stone to the building and it works." Click. One day, the founder of "Gnu", Richard Stallman, an American (with a physique quite similar to a ZZ Top) gave a conference at the university, spoke of "community" and also of "freedom". For Frédéric, it was the click. The American founded the FSF (Freesoftwarefoundation), the Frenchman created April in 1996. Since then, he has opposed the "proprietary world" to the "free world". And yet defines himself as a guarantor of intellectual property: "In free software, each contributor is an author recognized as such. But he gives authorization to modify his creation and to distribute it. We never reinvent the wheel in IT, we don't start from scratch: we use what we have acquired, to build further or in another direction. We explore and we never get bored." Client companies quickly understood the interest in equipping themselves with this software: constantly corrected, they are more secure than others; continuously developed, they are never obsolete... The list of companies that have recently converted is growing. Up to administrations or multinationals, which now choose this model. (1) Association for a taxation of financial transactions to help citizens. (2) Joke from IT enthusiasts that takes too long to explain.

## ###ARTICLE\_START### ID:526

Third conference on non-commercial and solidarity-based Internet, Saturday, December 16 at the European Center Paris La Chapelle (18th arrondissement). Organized by Globenet (associative host), Iris (association Imaginons un réseau Internet solidaire) and R@S (Association and union network). On the agenda, alternative solutions for access and hosting, management of collective network resources, use of the Internet in the workplace and, at the end of the day, a debate that is likely to be lively: "How to fight against incitement to hatred while respecting fundamental freedoms and rights?" with the Mrap, anti-rev.org, the Human Rights League and Ras l'front. http://www.assises.sgdg.org Zelig Conf, European meeting of digital countercultures, December 15, 16 and 17 at the International Center for Popular Culture, Paris (11th arrondissement). Demonstration closer to the "hacktivist" and "opensource" circles, organized with the support of the samizdat.net collective. There will be discussions about free software, content regulation, networking of knowledge and Ian Clarcke's Freenet project. One debate is on the theme: "The production of meaning against the portals of the new economy". http://www.samizdat.net/zelig Big Brother Awards. The first French Big Brother Awards, organized by Privacy International, will take place on Saturday evening as part of the Zelig Conf (see above). The aim is to "distinguish" people or institutions that have distinguished themselves by "their neglect or contempt for the fundamental right to protection of the private sphere or by their promotion of the surveillance and control of individuals". The ceremony will be accompanied by an "Orwell Party"... http://www.bigbrotherawards.eu.org

## ###ARTICLE\_START### ID:527

"Go and get lost!" American Joshua Davis, 29, author of the now famous PrayStation (an experimental site using Flash animation software), jumped on the table to shout at Numer.00, the first international interactive design conference held in Paris on December 9 and 10. The brilliant designer, graphic artist and programmer applies this advice to the letter in his life as in his work, loving to repeat, not without malice, to those who are ecstatic about his creations, that he has not the slightest idea of what he is doing. "Not knowing where I am going, I make discoveries by accident." Made up of "boxes" that each contain an "idea in motion", PrayStation has become in less than a year the rallying site for programming enthusiasts, because Joshua, an open source supporter, willingly makes his attempts available to Internet users: "They recover the code, adapt it to their own taste and send me the result, there is a real emulation." The Zorro of Flash wanted to make children's books but, in New York, the drawings of this unknown Coloradoan interest no one. Disillusioned, he follows the advice of a friend and dives into the fledgling Internet. "I had no idea what it was, I bought a book on HTML (the language used to create websites, editor's note), I read it from start to finish and I got started." During the day, he takes drawing classes at the Beaux-Arts and, in the evening, he lines up code, until the day of the "epiphany": he suddenly realizes that art and technology, far from being antinomic, were made to "mate". Advocating exploration and wandering as modes of creation, he went so far as to pour drops of food coloring in his eyes to see the world in red or to bake his paintings in the oven to observe the action of heat. The Once-upon-a-forest site is the secret side of this extroverted and voluble character who hides there under the pseudonym of Maruto. Difficult navigation, absence of text, of help, the Internet user left to his own devices could be disconcerted by the hermetic interface of the site, but as long as he lets himself be seduced by the enigmatic poetry of the animated paintings, sucked in by their strange beauty and the sound universe that envelops them, he never leaves. "It's a real digital black hole," Joshua jokes, waving his arms covered in Mayan tattoos. "People often write to me to find out if they're close to the goal, as if there were a riddle to solve. Once-upon-a-forest is based on imagination, on reflection, I'm convinced that's all people want, they want to participate, they're tired of being glued to the television."

## ###ARTICLE\_START### ID:528

It's Internet Day this weekend in Paris. Attention: not the "Internet Day", this promotional operation supported by the public authorities, with the election of Miss Internet User, praise of e-commerce and all that (that's next March). No, the festivities here are called "Non-commercial and solidarity Internet Conference", "Zelig Conf: European meeting of digital countercultures" and "Big Brother Awards", awards given to "people or institutions that have distinguished themselves by their contempt for the fundamental right to protection of the private sphere". Union activists and lawyers of "software", members of the Mrap and defenders of freedom of expression on the network, Act Up activists and players in non-commercial hosting will rub shoulders. Full of promise. For several months, we have witnessed the meeting of two activist cultures: one from the "classic" anti-liberal or anti-racist movements, the other from the Internet world and "hacktivism" (fierce defenders of individual freedoms). Each has its own battles, but the two worlds are discovering that their concerns sometimes converge. Isn't the "free computing" model, for example, full of promise for those fighting for a wider distribution of anti-AIDS molecules (see opposite)? "We have known since Seattle," emphasizes Alain Baron of SUD, "that the Net is a formidable tool for activist coordination. This has brought us closer to associations like Iris (Imaginons un réseau Internet solidaire) or R@S (an associative host, financially supported by SUD-PTT among others, editor's note). And now we are discovering common causes, such as the non-commodification of the Net." For Meryem Marzouki, one of the leaders of Iris, there are no fundamental differences between these two forms of activism: "Iris ensures that the network is not used as a Trojan horse to harm freedoms. In the field of education, for example, this means ensuring that "virtual campuses" do not threaten public service. Which is in line with the fight of teachers' unions." Real differences. Valérie Peugeot, from the Vecam association (which campaigns for the development of participatory democracy via the Net), has the opposite opinion: "New forms of activism are arriving via information technologies. The network allows us to discover other forms of struggle, other points of view." But she recognizes that "there is still a lot of work to be done to connect two worlds that do not understand each other well." And for good reason: "Traditional activists are only just beginning to explore the new issues raised by the Internet," notes François Sauterey, administrator of R@S. The most recent associations, such as Attac, are certainly more comfortable than others, such as the CGT. But there are sometimes gaps. Some of the associations that we host do not understand the need to be on common mailing lists." And then there are "real differences in background and history, which are difficult to reconcile," notes Valérie Peugeot. Thus, the Licra refused to participate in this weekend's Assises, believing that it had been insulted by Iris. "They spoke of 'narrow-minded relentlessness' on our part in the Yahoo affair (the league had the portal condemned, which offers auctions of Nazi objects on its site, editor's note), complains Marc Knobel, of the Licra. We are not censors. We just have a different conception of freedom of expression and the Internet." To which Meryem Marzouki responds: "The anti-racist fight cannot be waged in any way. We are not in favor of American-style freedom of expression either. But when the Licra welcomes liberticidal measures, it shocks us." Subtleties. To make matters worse, the multiple schools of thought born around computer networks are not always easy to grasp. In the United States, movements such as crypto-anarchism and cypherpunks (who have developed a real ideology around encryption techniques) can fall into a kind of ultra-liberalism. It is impossible under these conditions to draw a political map of the Internet! Even the French debates are difficult to follow, if we have to go into the subtleties that separate, for example, the concepts of associative hosting defended by Globenet or R@s. "Some debates are a little complex for us," admits Alain Baron, from SUD. "We were asked to take a position on the problem of the responsibility of technical intermediaries (hosts and access providers, editor's note). We were quite divided, and there is not enough time to explore this type of debate among ourselves in depth." Bridges. Thanks to places of exchange such as the Minirezo site (webmasters' associations), bridges are being built, misunderstandings are being cleared up and points of view are changing. Thus the thorny issue of defamation on the Web. The action of anti-racist associations has resulted in court decisions that refuse websites the three-month limitation period granted to the press (Libération, December 7). Some at the Human Rights League and the Licra regret that it has come to this. "I do not want us to conduct eternal witch hunts," Marc Knobel says today. All parties agree on one point, and this is what is at stake in this weekend's debates: we must not leave it to judges, industrialists and regulators to set the rules of the Internet. "The uses of the network will be determined by its users and, among them, associations will play a crucial role," believes Michel Elie, from the Internet Usage Observatory.

## ###ARTICLE\_START### ID:529

Microcomputing is often a story of a couple. For a long time, the Microsoft-Intel tandem dominated the sector. Today, the most fashionable wedding is celebrated between computer manufacturers and a special software: Linux. Yesterday, IBM announced the development for the oil company Shell of a gigantic network of computers running on this iconoclastic product. Penguin. Symbolized by a penguin, designed by thousands of volunteer computer scientists, improved thanks to the Internet on all continents, distributed free of charge, freely modifiable by its users, Linux is what is called "free software": everyone can not only copy and use it free of charge, but access its manufacturing secrets (the source code), adapt it to their needs and propose amendments. Like Windows, of which it has become a credible competitor, Linux is an operating system (the software at the base of the functioning of computers) designed to equip PC-type machines (personal computers). Yesterday was the real wedding between this product with anti-commercial origins and IBM. Lou Gerstner, the company's boss, announced that it would invest a billion dollars in Linux next year. Already, 1,500 developers are developing different versions of the software for IBM. "We are pushing Linux into commercial and production-related environments," he said. For IBM, as for the companies distributing Linux, there is no volunteer work: they are paid by charging for services: installation, maintenance, training, adaptation to needs, etc. Shell will have the largest installation running Linux: more than a thousand computers linked together and operating as a single, extremely powerful computer system. This new equipment will be used to collect seismic and geographic data related to the company's explorations. Very present in the world of research, Linux is spreading rapidly in companies. The research institute IDC estimates the growth of the software on the server market (computers that store information) at 28%. According to some estimates, Linux's market share could surpass Microsoft's in the coming years. The software is also making its mark in the still embryonic market for Internet access terminals and digital decoders for televisions. There remains the market for desktop computers used by employees and individuals. For the moment, Linux is confined to the computer premises of research centers and companies. Reputed to be reliable, stable, robust, fast and scalable for servers, the software has flaws that limit its distribution: installation difficulties, complexity of use, insufficient family software (account management, etc.), games and CD-ROMs, existence of competing systems, etc. Not to mention Microsoft's stranglehold on the consumer market: all PCs are delivered with Windows as standard. Extension. But now, computer manufacturers, long reluctant, are starting to believe in it. Recently, the biggest names (Hewlett-Packard, IBM, Compaq) have lent their support to two coalitions of programmers (KDE and Gnome), competing to produce a Linux extension that would offer a level of user comfort comparable to Windows or Apple's Macintosh. In a few years, Linux will also be in the hands of the basic user, they promise, definitively putting an end to the unchallenged domination of the Microsoft-Intel couple.

## ###ARTICLE\_START### ID:530

Alexandre and Jérôme are 18 years old. They discovered computers at the age of 11, and they have been creating programs since the age of 14. Since they met in September at a computer school south of Paris, they have been inseparable and swear by the distribution systems for music and film files on the Internet. "During the day, we develop game programs included in the first-year courses, in the evening, we watch films in DivX compression format, downloaded the day before from American sites. Often feature films not yet released in France," explains Alexandre. Napster, outdated. The two friends accept that Napster and then MP3.com have fallen into line and formed an alliance with the music industry: "They couldn't do otherwise because of the increase in lawsuits." Now, says Alexandre, "Napster is for parents. I started mine a month ago. Now they download the hits of their time: Beatles, Rolling Stones, Pink Floyd..." They have moved on to something else: free software. For all those who are resistant to the Napster-BMG and MP3-Universal agreements, the future of music and film file distribution is here. "We used MP3, Napster and now it's the turn of Gnutella, Imesh, Freenet. Each time, there has been a way to find for free." Alexandre has a weakness for Gnutella, a system that "does not require you to go through a central server like Napster. It allows your computer to get in direct contact with the person who owns the music you are looking for. That complicates the intervention of the justice system." The grumbling of the music and film industries does not worry Alexandre and Jérôme: "They only invest in the protection and identification of works, while hundreds of Internet users like us are trying to invent ways of distributing and consuming content on the network." Freedom and sharing. The 2,000 students at their computer science institute download and exchange music files daily via the Internet. The less well-off have a few hundred MP3 files on their hard drive, others several thousand. The two young people hope to one day develop their own system. "We are not stupider than others. We do not do this for the money but for freedom and sharing." Two months ago, Alexandre created his site dedicated to the world of Gnutella, which receives 500 visits per day. "Our concern is to create a simplified interface that will allow amateurs who do not master the complicated world of free software to have access to Gnutella as they had to Napster," he says. These navigation difficulties give the music and film industry a respite from the rebels. Until when?

## ###ARTICLE\_START### ID:531

A high-tech metropolis, Toulouse concentrates all the elements that promote the emergence of young companies. First of all, it is the second largest French university center after Paris, with fourteen leading schools and 110,000 students. It is also a research center with 10,000 researchers working in 350 public and private laboratories. Finally, the third element of a winning trilogy, Toulouse has cutting-edge industries. Thanks to Aerospatiale, it has established itself as the second largest center in the world for civil aeronautics. This company has fostered the emergence of a whole network of partners specializing in mechanics, engineering, industrial computing, embedded electronic systems, etc. Toulouse is also a leader in the field of space. The CNES, nearly three-quarters of whose staff work in the Ville Rose, ensures the development of complete space programs while major industrialists have gradually completed a sector that today employs 10,000 people. The arrival in Toulouse of Alcatel Space and Matra Marconi Space, now Astrium, played a role comparable to that of Aerospatiale for the industrial fabric of the metropolis. Finally, electronics constitutes a third major sector, particularly with Motorola specializing in semiconductors, communications and embedded electronics. Generally speaking, industrial groups, researchers and SMEs are committed to promoting know-how acquired in other sectors and to increasing the number of bridges between research and industry. New information and communication technologies (NICT) have particularly benefited from these efforts. At the heart of this environment, Irit (Industrial Computing Research Institute) and Laas (Systems Analysis and Architecture Laboratory) have an activity which, combined with those of INPT (National Polytechnic Institute of Toulouse), Onera and Cerfacs (European Center for Research and Advanced Training in Scientific Computing), covers a very broad spectrum of skills, from the study of components to the design of multimedia system elements. In the orbit of large companies, and benefiting from this scientific effervescence, a plethora of high-tech SMEs and start-ups have thus been able to emerge. Their emergence is also encouraged by the action of a certain number of regional organizations. For example, Sicoval, which is responsible for the economic development of 34 municipalities to the south-east of Toulouse. "There is a high concentration of grey matter there with Astrium, CNES, Paul-Sabatier University, CNRS laboratories, IT companies," explains Claude Subra-Mazoyer of Sicoval. This is where the Technopole Sud was set up with its four Labège Innopole sites, the Canal Technology Park, the Agrobiopole and the Hers Valley and its two business incubators, Prologue and Prologue Biotech. "Labège Innopole, which brings together more than 480 companies and 9,500 people, includes powerhouses such as Sanofi-Synthélabo, Pierre Fabre laboratories, SMEs/SMIs but also very small companies specializing in IT, biology, NTIC, services. Sicoval works, in particular, with research laboratories, cutting-edge companies, engineering schools to create a fertile environment for the emergence of innovative companies. Since its creation in 1988, our Prologue incubator has thus encouraged the creation of 130 companies. While some, such as Realix, Access Commerce, recently introduced on the Stock Exchange, Data media... whose growth is confirmed, leave the incubator, we help new start-ups to take their first steps.

## ###ARTICLE\_START### ID:532

By 2003, all teachers, from primary to higher education, will have a "virtual office". They will access it via the Internet, from their school or from home if they are connected, after entering their name and password. This customizable "office" will offer sources of educational information, professional directories or forums, and can be used to store private documents or documents intended to be made public. A technical challenge. Perhaps more innovative, and without equivalent in the rest of Europe: the teacher will also find on his "cybertable work" a space called "i-PROF", presented today at the Education Fair, where all the elements of his relationship with the administration will be concentrated: personal file, career prospects, transfer possibilities, etc. Everyone will be able to communicate with a designated "management correspondent". The entire project presented at the Education Fair is one of the largest Internet applications ever developed in France. Involving 800,000 people (all teachers) and taking advantage of "free" software such as Linux or Apache, it represents a nice technical challenge. The project was decided in May. In January, the first "virtual offices" will be available for the Toulouse academy. In March, "i-PROF" will be tested by 3,000 teachers from the Versailles academy. The big launch is scheduled for the start of the 2001 school year, after evaluation of the first users via Sofres surveys. For the time being, there are no plans to force each teacher to use their "virtual office". Access to the Net from teachers' rooms is not always easy and not all those interested have a home connection. It is also a precautionary measure: there is no guarantee that the IT administration will be able to cope with its almost million users. This is why the deployment of the services is planned over more than two years. Flexibility. While emphasizing the great "security" of this digital environment, the promoters of the project insist on its flexibility. The publication space will allow a teacher to leave documents for consultation with students, parents or other teachers. He will be able to open online workshops with colleagues or with his classes. "Information channels" will be offered and each teacher will have a personal and permanent email address. The National Education speaks of a "bouquet of Internet services" to describe the "virtual office", where one will also find "partner applications", selected for their educational interest, and coming from third parties: press, cultural or scientific services, etc.

## ###ARTICLE\_START### ID:533

We were promised that it would be lighter, more scalable and more standards-compliant. However, like the Beaujolais Nouveau, the new Netscape 6.0 still tastes of fruit and would need to age before facing a mature browser like Internet Explorer. More than two years after releasing the source code of Netscape, and after many delays attributable to the complexity of said code as well as the departure of key programmers from the Mozilla team, Netscape finally presented its "final" version of 6.0 last week. We could not resist the temptation to test the beast to see if the promises we had been made would be kept. It should be noted that this new evolution of what was, a few years ago, the most popular browser, is the first major version since AOL bought Netscape. Previously, Netscape aficionados had to make do with the micro-evolutions of this software, which advanced it from version 4.7 to 4.71, 4.72, up to 4.76. In short, bugs were fixed, without really evolving the product, while this new version is based on completely new code. Unlike previous versions, Netscape, which had also based its product on an OpenSource model, was betting that many Internet users-programmers from all over the world would contribute to the development of the product. The heart of Netscape 6.0 is the "Gecko" rendering engine, an extremely powerful and very small engine in terms of bytes and, above all, very respectful of the standards of the W3 consortium. Unfortunately, it seems that Netscape is not really keeping its promises in this version 6.0. The rendering engine and the core of the software may be light, but adding its "branding" and the various features, Netscape 6.0 is still a heavyweight software, with the many bugs that go with it. Already, on the many forums that abound on the Web, we can read that from the installation, Netscape 6.0 is saddled with small, very annoying bugs. The installer itself of the software is not perfect, which we have seen for ourselves. We had to try three times before managing to install Netscape to make it run at high speed. What a shame, because great hopes had been placed in this browser, which is still one of the only ones on the market to be offered on almost all platforms such as Windows, Macintosh, Linux-Unix. Only the Opera browser, a software that is not available for free, is available on as many software platforms. A bit like Microsoft's browser, Netscape 6.0 includes a space called "My Sidebar" where you can find a calendar, personal messaging tools, stock quotes and a place to directly search the Internet. Also, Internet users concerned about respecting their privacy will be happy to see the presence of a new tool called "cookie manager". This allows users to configure their favorite software so that it can reject or accept these cookies, which are sometimes not very discreet. In addition, the various tools such as the email application and the "newsgroups" viewer are now separate from the browser. But, despite all the promises, Netscape is still a capricious software, which clearly has a tendency to want to crash regularly, a bit like a beta software. Moreover, it seems to us, after all these delays, that Netscape could have let its flagship software mature a little more before offering it to Internet users, in a supposedly final version. Especially since Microsoft has presented its next version of Internet Explorer to a few selected programmers. To my regret, and I know that I will not make friends in the Netscape community, I unfortunately find myself obliged not to recommend that Internet users download this version of Netscape, which is still too buggy. Like the Beaujolais Nouveau, at the first sip, you can smell the good, easy-drinking fruit, but very quickly, you get tired of it and hope instead for a good Bordeaux at its full maturity, as Explorer can be. Sorry Netscape, my uninstaller is eliminating you from my hard drive. Until the next version, perhaps? dumais@Mlink.NET

## ###ARTICLE\_START### ID:534

Ottawa - Shares of fragile software maker Corel Corp. fell 5 per cent yesterday after it raised the possibility of selling its Linux business as part of a strategic review of its direction. Struggling with sluggish sales, Corel, best known for its WordPerfect and CorelDRAW software, entered the Linux market late last year, believing the business could help it capture significant new revenue. Linux is seen by some computer industry analysts as an operating system that could rival the dominant Windows operating system from U.S. giant Microsoft Corp. Former Corel Chief Executive Michael Cowpland, who resigned in August, had predicted sales of $20 million for Linux products this year. But in the past nine months, sales in the business have reached just $6.1 million. Corel's Linux business would have to grow in volume to be successful, according to a recent corporate study commissioned by the company. The company is looking at buying technology to add to its Linux subsidiary, or selling the subsidiary, a spokeswoman said. A formal decision will be announced in December or January. Corel is looking at its entire business to stop accumulating losses, spokeswoman Anne Vis added, and Linux is just one part of the company's overall business. Corel announced last summer that it was laying off 21 percent of its workforce, or 320 employees, in an effort to save $40 million a year. Corel has developed a line of Linux products, including a desktop interface for the operating system and Linux versions of its existing software. Linux is an open-source operating system that proponents say is more stable and flexible than Windows. Once the darlings of the financial markets, Linux-related firms are now having a less fortunate time. VA Linux Systems Inc. recently issued a first-quarter earnings warning, saying sales were down because of a string of failed ".com" companies. That news was compounded by lackluster sales growth at Red Hat Inc., leading analysts to conclude that demand for Linux was falling short of expectations. Corel had just $11.6 million in cash in its coffers at the end of the third quarter, but it received a $135 million cash injection from Microsoft in October under a product development partnership agreement between the two companies. Corel shares closed at C$5.05 on the Toronto Stock Exchange, down 30 Canadian cents. Last December, as the Linux craze swept the markets, Corel shares hit a high of C$64.65 on the Toronto Stock Exchange. On the Nasdaq, Corel shares fell from $3/16 to $3-1/4 on Monday.

## ###ARTICLE\_START### ID:535

The European Commission is preparing to challenge the Munich Convention next week, which prescribes the non-patentability of software and intellectual methods. Until now, this subject has received very little media coverage (1), although the stakes for the economy, innovation and scientific research in Europe could prove considerable. Patents were originally introduced to encourage inventors to make their ideas public by granting them a certain period of exclusive exploitation of them. It is also accepted that inventions, which may concern products or manufacturing processes, must be new and contain at least one inventive step. However, in the United States, we are currently witnessing a drift that is causing patenting to lose its initial role of preventing inventions from being lost forever and which aims to considerably broaden the scope of application of patents. This policy allows some American companies to appropriate so-called "inventions", to artificially inflate their economic statistics, and to attract more investment by creating the impression that Europe is lagging behind in many areas, such as the "new economy". A first possible extension of the scope of patents concerns trivial inventions. For example, the virtual bookstore Amazon, which recently created a French-language site, has patented "one-click shopping". This is a key mechanism of e-commerce: storing a user's contact details when ordering on the Internet. This "invention" is nothing other than the transposition to the field of e-commerce of a common practice: do we not provide personal information, which will be stored and reused, when we open a bank account? Moreover, the technical means to implement this mechanism had already been found by the company Netscape. If such a patent were to come into force in France, it would allow Amazon to squeeze money out of almost any company that would launch into e-commerce, as Amazon has already tried to do with Barnes and Noble in the United States. Is it any wonder that many companies across the Atlantic have to make significant provisions to deal with the possibility of this kind of commercial attack? Similarly, Microsoft recently patented the idea that the same document could be rendered in different ways on a computer screen or on paper, depending on a "style". For example, one could view the same text as a letter, as an article in a book or enlarged in order to make transparencies for a presentation. This patent was obtained despite the fact that this idea is obvious, that it was already very widely used before the patent was filed, and that Microsoft is not its inventor! Let us insist: this patent would allow Microsoft to tax almost any manufacturer of office software. Besides the fact that this would strengthen the (already illegal) monopoly of this company, this patent is particularly threatening for free software like GNU/Linux. Indeed, because of their low price, these software are currently among the most serious competitors for Microsoft, but their narrow profit margin could not protect their publishers against possible attacks. Moreover, in an internal memo, Microsoft has already designated patenting as one of the main weapons to fight against free software, developed largely in Europe. We can therefore be worried: neither inventiveness nor novelty are necessary criteria for obtaining a patent; even "intellectual methods" do not escape American-style patentability. When will the Pythagorean theorem that we teach in school be patented? When will the air we breathe and the human genome be patented? Let us not forget that there are areas where the practice of patenting already directly endangers human life. Indeed, the prices of AIDS drugs are currently disproportionately high because they are based on patents and not on healthy competition in the markets. How many millions of Africans will be sacrificed in this way to protect "intellectual property"? Similarly, does not research on GMOs and cloning herald the systematic dismantling of the living world? In conclusion, I see no interest for Europeans in relaxing the Munich Convention. Aligning with American practices would lead to additional and counterproductive regulations for our companies, would reinforce the emergence of monopolies in industry, while slowing down the creation of small, dynamic and truly innovative companies. As a knock-on effect, scientific research would be slowed down in turn, as well as marginalized in relation to the economic world at the very moment when we are trying to bring them closer together. Finally, the ethical consequences are also difficult to predict. Will the European authorities act in the interests of our countries, and not according to the lobbying of a few pressure groups, which take advantage of the lack of interest aroused among the general public by "technical dossiers"? However, these involve the economy, science and the technologies of the future. (1) Libération devoted a dossier to this question in its edition of September 8, 2000. See also on page 25 Joris Van der Hoeven is a researcher at the CNRS and a software developer.

## ###ARTICLE\_START### ID:536

A provocation. On Monday, Aful filed a software patent for a process for moving to a 35-hour week. The French-speaking association of Linux and free software users does not intend to protect an invention but to "demonstrate the absurdity of extending the patent system to software." It says ironically: "Organizations that move to a 35-hour week without acquiring a license must prepare to demonstrate that they are not infringing the Aful patent." The timing is right. An intergovernmental conference of twenty European states is meeting in Munich (Germany) from November 20 to 29. A treaty from 1973. The purpose: to revise the treaty that established the European Patent Office in 1973. The hot topic: the proposal to include software in the field of patentable innovations. Europe would thus align itself with the United States (Libération, 8/9/00). Supporters of this measure see it as a way for companies to promote their research and protect themselves against theft. For its opponents, software patents are, on the contrary, a brake on innovation: companies tend to multiply them to bog down their competitors. Like the e-commerce group Amazon, which filed a patent for "one-click purchasing", which was widely contested. Insane. The members of Aful believe that their patent on the 35-hour week is no more insane than others such as the distribution of cooking recipes in supermarkets, filed and accepted in Europe or the United States. "All acts of daily life that go through computers could be controlled by patents. We risk the patentability of all social activities", warns Bernard Lang, computer researcher and secretary of Aful. (Read also on page 7.)

## ###ARTICLE\_START### ID:537

Why are states so attracted by the penguin, the emblem of Linux software, an alternative to Microsoft's dominant operating system (1)? In addition to China, the Danish Parliament has just received a report in favor of its use. In France, the National Education signed an agreement in October 98 with a users' association to encourage its use in schools. Similar discussions are underway in Belgium, Germany and Brazil. The answer is simple: Linux does not belong to anyone, unlike Windows, the exclusive property of Microsoft. This software comes from the thoughts of the American Richard Stallman in 1984. His idea: to build a "free" operating system, free to copy, freely modifiable and whose source code (manufacturing secrets) would be accessible to everyone. A libertarian ideal at the antipodes of Windows, whose secrets are jealously guarded by Bill Gates' firm. This idea took off in 1991, with the Finnish Linus Torvalds, joined by thousands of volunteer programmers around the world, working via the Internet to transform Linux into software capable of competing with Windows. Free software. For the States, the rebellious project quickly proved attractive: "Since we have access to the source code, we can see if there are any spies," explains Jean-Paul Smets, of the French Association of Free Software Users (Aful). A strong argument for the Chinese, frightened by the idea of spying via Microsoft, fatally suspected of being in thrall to the American secret services. In addition, by opting for Linux in schools, the States avoid the Microsoft monoculture, which makes it possible "to train students who know several systems." Schoolchildren would be less prisoners of Windows. Finally, since Linux belongs to no one, it belongs to everyone: everyone is free to create a company, like the Chinese Red Flag, to adapt Linux to their own taste and market it to measure, "without depending on the lies of a single manufacturer", according to Smets. From the libertarian spirit of its origins to its approval by a State that is, to say the least, rigid, the penguin never ceases to line up paradoxes. (1) The operating system is the basic software of any computer, essential to its operation.

## ###ARTICLE\_START### ID:538

Last May, the National Assembly adopted a bill aimed at strengthening consumer freedoms and promoting competition in the information society. At the heart of the debate: free software, applications distributed with their source code, freely redistributable and modifiable. On this subject, France is a pioneer. This law forces public services and institutions to prefer this type of utility to traditional proprietary software, thus reinforcing an economic model that is already booming. Who has never heard of Linux, Gimp or Netscape as an alternative to Windows, Photoshop or Internet Explorer? Their use is spreading like wildfire, leaving traditional publishers speechless, concerned about not disclosing their industrial secrets. Because this is the heart of the problem raised by our parliamentarians: could the French administration continue to use protected software to distribute confidential information without being able to check for possible security flaws within it? No. Free software therefore has a bright future ahead of it, and it has found additional support for its development in France. Support which, at the time of the trial that calls into question the monopolistic situation of the giant Microsoft, goes in the direction of promoting a greater diversity of software offerings for consumers.

## ###ARTICLE\_START### ID:539

Beijing by our correspondent The name rings out like a revolutionary proclamation: Red Flag, red flag... The project is no less so, since it involves dethroning Microsoft's Windows system on the gigantic Chinese market, by adapting and popularizing that of Linux, its "free" competitor, this amazing software, developed in a contributory manner by volunteers from all over the world and available free of charge. In doing so, communist China becomes the largest potential market for Linux, and a full-scale test bed for the rivalry between the two systems. The Red Flag "project", directly inspired by the Chinese government, became a reality last summer with the creation of the Red Flag Linux company, and continues to make waves. Liu Bo, the president of Red Flag, does not hide its political dimension: "From the government's point of view, it makes sense to support Linux," says this former deputy general manager of... Microsoft China! It makes economic sense, since Beijing's strategic ambition is to foster the emergence of a national software industry and to supply Chinese production to the six million PCs sold each year. Microsoft, for its part, has been taken to task in China for the supposed existence of a backdoor in Windows operating systems, which is difficult to accept for a government like Beijing. "Is there a spy or not? In any case, it is a political risk for a government," explains Liu Bo. The Academy of Sciences, whose vice-president is the son of the Chinese head of state, Jiang Zemin, the Ministry of Information Technology, and the National Planning Commission have provided political and capital support for the creation of Red Flag, which is expected to go public. The company has 80 employees, including 56 engineers. Image. However, the boss of Red Flag is careful not to declare war on Microsoft. He specifies that "China has no intention of banning Microsoft" on its territory. The Redmond company continues to be very present in the country, where Steve Ballmer, its new CEO, was in September to announce 40 million dollars of investments. Its products remain, however, unaffordable for consumers who are very careful about spending, especially when pirated editions circulate freely in the country. As for Bill Gates, he remains a very popular figure, whose books, translated, are in all bookstores. Microsoft is nonetheless on the defensive. A first blow was dealt to its image last year, with the publication of the book by Juliet Wu, a former director of its Chinese subsidiary, who drew up an "anti-monopoly" indictment and called Microsoft an "enemy of the Chinese consumer." The American giant responded this year by sponsoring the publication of a book close to an advertorial on the benefits of Microsoft in China, written by Ling Zhijun, a well-known journalist from... People's Daily, the central organ of the Chinese Communist Party! The author takes up the defense of the American company in a militant manner, wondering if a failure of Microsoft in China would be "a victory for us Chinese". He quotes a student from Tsinghua University in Beijing: "It doesn't matter whether Microsoft is imperialist or not, it brings another way of thinking and a better management method than in China." Ling Zhijun dedicates his book to "those who are the most intelligent", that is to say, he explains, the Chinese researchers at Microsoft... Tense context. The Red Flag offensive comes in this tense context. It is clear, and Liu Bo confirms it, that the Linux system will be promoted and favored wherever possible in the immense computer park of the Chinese administration. Particularly in the education system: the 1,500 Chinese examination centers are equipped with the system developed by Red Flag. The company is in fact developing customization, that is to say an adaptation of the Linux system to particular needs, its only way, moreover, to generate income since Linux is freely accessible. Other companies, such as the American Red Hat, which has nothing to do with Red Flag, also offer adaptations of Linux for the Chinese market. Liu Bo wants to play fair: "I personally think that Microsoft is a good company, but the domination of a market is not a good thing, it prevents innovation. The main reason for the strong growth of Linux is that this system encourages innovation." Microsoft versus Linux: the battle is only just beginning, too early to know who, the red flag or the star-spangled banner, will win.

## ###ARTICLE\_START### ID:540

Your columnist, not very humble it goes without saying, had an excellent week. After all, being praised for having brought back the Penguin, all that starts a week well. But what emails! All that was, all in all, much better than my visit to Comdex. Thursday morning. Very busy early morning for the columnist. I had, first, an appointment in a large Montreal hotel. My host, none other than Uncle Bill himself. Well, not really Bill, but his henchmen, who came to present to us the latest consumer products from the Redmond firm. The new control joysticks, new games, and above all, the new version of Encarta, the 2001 version of this gigantic encyclopedia of multimedia knowledge. We will talk more in detail about these new games and new peripherals, not having had time to try them out in my work environment. However, I left with a brand new French version of Encarta under my arm. I have carefully preserved all versions of Encarta, since its very beginnings. What a difference when you look at the first version with the very latest. The presentation, the user interface, the content, everything has been designed to highlight the information available on more than five CD-ROMs. Unless you are one of those lucky ones who own a DVD, in which case, a single plastic and metal disc will be delivered with Encarta 2001. Let us thank Uncle Bill for finally understanding that we natives are also eager to view content in French. This French-Canadian version is getting closer and closer to the English version, with however small cultural adaptations. For example, there is a section on Jean Chrétien. It is quite simple, I jump for joy. What excited me the most, however, in this encyclopedia, is the very great synergy between local content and online content. In fact, in addition to the information available on the CD, Encarta is, as long as you have an Internet connection, constantly on the lookout for additional information online. Each day is enough trouble for it, and each day, Encarta "pumps" new content from the Internet, which means that this encyclopedia will never go out of fashion. The user interface is a model of its kind and it makes no difference between online and local content. For the user, everything is totally transparent. But these are only my first impressions, because I only had one evening to appreciate this new Microsoft product. Give me a little more time and we'll talk about it again. One detail, Encarta works admirably well under Windows 2000. Comdex-Montreal: Zzzzzzzzzz! Following this meeting with the friends of Microsoft, I headed to the Palais des Cons where the Comdex-Montreal exhibition was being held. Big improvement this year, Comdex-Montreal lost its title of ugliest convention to MIM (International Multimedia Market). To tell the truth, no improvement on the Comdex side, but rather a deterioration on the part of MIM. In short, two exhibitions where it was good to sleep and get bored. Pitiful from every point of view. But I would be remiss if I did not mention the obvious respect of the Comdex organizers for the poor savages that we are. Getting answers in French was a miracle. I had completely forgotten that we were poor ignorant water carriers. Speak white! The mail, the mail, the mail! Oh my rascals! You write to me more and more, so that I can answer your questions and comments. We should almost have a Questions and Answers section on this page, what do you think? Slip a word to my very dear and honorable boss. You will find his email on the Devoir website. Let's examine what missives the very virtual postman brought us this week. UQAM connection Hello and congratulations for the return of the penguin corner, we really missed it! I would simply like to know if there is a modem, preferably at an "accessible" price, that allows, not a laptop, but a very ordinary computer to surf the Internet using a cell phone. You see, as a master's student, my office, unlike those of the neighboring professors and despite the presence of the necessary equipment, does not allow access to the network and therefore to the Internet. Probably another symptom of the underfunding of our places of "high knowledge and high technology". Dominic Tremblay Student in economics at UQAM. You don't have access to the Internet at UQAM? Well! In one of the "best connected countries in the world" no less. Most new modems allow you to connect to a cell phone, it's not really a problem. And the very latest generation of cell phones also accepts cohabitation with a modem without too much difficulty. However, I ask myself the question: do you really want to connect to the Internet with your cell phone? In addition to the costs, you will see that if connection with a cell phone is possible, the transmission speed is not really that of a regular telephone line. Far from it! But if you absolutely must, consult most cell phone dealers to learn about their offers, but above all, so that they can offer you the possibility of at least testing their phones and seeing which one will work best with your modem. A word of advice in passing, do not touch the "winmodem", these kinds of bastard modems that only work in the Windows environment. Linux in the region Your not very humble is always surprised to receive emails from all over Quebec, and sometimes even from the old countries. Long live the Internet which allows readers to read Le Devoir often before it is even available on newsstands. And a tip of the hat to the webmaster. Installing Linux, especially when you live far away in the region, can seem off-putting to many users. However, some distributions minimize the risk of disasters. A nice letter from Robert Henri. Hello Mr. Dumais Your article on Linux is very interesting, but... I have long dreamed of getting Linux, but... Is there a "really" free, "really" user-friendly version of Linux, without those lines of code even more obtuse and obscure than the sad MS-DOS? If I crash with Linux, which no one uses here in Baie-Comeau, I will have to reinstall Windows. And I hate Bill Gates. Is there a French version of Linux and a bug-free French version of StarOffice? Robert Henri Baie-Comeau Hello to the people of the Côte-Nord. Really free? But Linux is free, and available in open source code too. Even the majority of available distributions are also offered in free versions on the Internet. As for a bug-free version of software, forget it. I do not know of any software or operating system that is not buggy. Hell, dear readers, hell. Allow me humbly (yes, it happens) to particularly recommend two distributions that are particularly user-friendly and easy to install, as long as you have a recent machine. The Mandrake one and also the Corel one. Both are particularly impressive during installation. They manage to detect the vast majority of peripherals and configure them. And Mandrake, in addition, installs automatically in the language you want, including French. And the entire working environment is in French. To download all versions of most distributions, I advise you to visit the Linux ISO site (http:// www.linuxiso.org). As for StarOffice, know that this office suite is available for Linux in French too. Small recommendation: make sure that your modem is an authentic modem and not a "winmodem", because Linux does not work, except for a few exceptions, with a "winmodem". News from StarOffice A regular reader of Le Devoir, Luc Leblanc, took advantage of my last column to send me some more information about Star Office. Hello columnist A few details worth mentioning about StarOffice: - a Mac version is expected for the spring; - version 6 will split the suite into components independent of StarDesktop; - the suite's future native formats will be defined in XML for more portability; - version 5.01a exists for OS/2 and it is possible that version 6 will also be compiled for this platform; - version 6 will be included in several Linux distributions. After all this good news and a growing affection for the open source principle, all I have left to do is learn to love Linux, whose interface I can't help but find adopts the worst of Windoze and often looks like a gimmick. Let's hope that the involvement of the many partners of the Gnome Foundation will put a little rigor into this. Luc Le Blanc Montreal A thought for Renée Laforge I think I have already told you my immense respect for the other Dumais (no relation to me) of the computer scene, the one who scribbles in the Journal de Montréal. This summer, he and I organized a nice little meeting with our readers. It was on this occasion, through Nelson, that I had the opportunity to meet Renée Laforge, a nice grandmother, who at 50, went back to school to become a Microsoft system specialist. In addition, Renée passionately hosted a troubleshooting forum on the Internet. Many Internet users, including probably one of you, dear readers, have benefited from her advice. Even well-known journalists have received Renée's much-appreciated help. I have found valuable advice there on occasion. Unfortunately, cancer, that bastard, temporarily stopped her ambitions to become an MCE (Microsoft Certified Engineer). After a merciless fight, she finally experienced remission and was able to resume her studies. While she was about to take her exams and pass, I am sure, her certification, the Beast, cancer, came back to haunt her. Know, Renée, that the columnist suddenly becomes very humble to wish you success in your fight against cancer. You have succeeded in everything you wanted, so, I am sure, you should win this war too. I am also very certain, the friends who read this column also send you a sweet thought.

## ###ARTICLE\_START### ID:541

Dear readers, Linux fanatics, you will be happy to see that following your letters, the columnist (eminently not very humble) offers you the return of the Penguin's corner. And to celebrate this return, what could be better than a column almost entirely devoted to this joyful web-footed bird? I admit it, dear friends of the Penguin, I have neglected you. The holidays and the quite natural laziness of the columnist, and here is the Penguin who no longer reappeared. Fortunately, a few letters with well-felt remarks convinced me of the merits of bringing back this little Linux column. Some will say, perhaps rightly, that the Penguin was only a flash in the pan and that with the collapse of values in high technology, the web-footed bird was no longer worth it. However, Linux is mainly a philosophy, that of the free and open source software movement. Shame on me, dear readers, I admit to having succumbed, for a few nanoseconds, to this fool's trap. Don't worry, my beliefs about the Penguin haven't changed. I still believe in the OpenSource model. And, as punishment for having doubted, I locked myself away for a few hours with Brutus the cat while trying to read Pascal's Pensées with him. To no avail. I didn't understand a thing. The cat did. Strange, isn't it? But let's get back to our Antarctic environment and take a look at the latest big news from the OpenSource universe. After a long time of asking for it, Sun, a manufacturer of very powerful workstations that also publishes the Unix Solaris operating system, has finally decided to listen to them and release into the wild the source code of its StarOffice suite, a clone of MS Office, available for Linux platforms, but also Windows and Solaris. As for the Macintosh version, nothing yet on the Sun site. Nine million lines of code With its nine million lines of code, StarOffice is truly a clone of MS Office. Available in more than ten languages, including French, the software package that Sun acquired from a German firm nearly a year ago is in its brand new version numbered 5.2, equipped with several features identical to Uncle Bill's office suite, and even more. For example, you only have to look at the different components of StarOffice to see the power of this software. In addition to the word processor, the spreadsheet and the PowerPoint-style presentation software, SO integrates vector drawing software including powerful 3D functions, a bitmap image processing software, a powerful diary that can communicate with a Palm, an e-mail application and a few other small secondary applications that all revolve around the great integrator, SO Desktop, the glue that holds all these modules together. Most users of one of the office suites on the market like MS Office or Word Perfect Office will not notice anything about using the StarOffice suite, especially since SO is compatible with the file formats of its big commercial brothers, even the very latest 2000 suites. The only major absence from this suite is a database manager. Under Linux, only the Word Perfect Office suite offers it, the base being called Paradox. But, unfortunately, despite its modest price, the WP suite is heavy, buggy, and, above all, it is not OpenSource. But for most schools in Quebec, the StarOffice suite is quite ideal: it is free, in addition to fulfilling the same functions as the commercial suites on the market. Unfortunately, we are not about to see the SO suite invade our schools, the mafia of school board IT department managers being obsessed with the Microsoft aura. And, mind you, I have nothing against the features of the MS Office suite, I only have one against its price. Even at a reduced price, it is still too expensive when you get a product of equivalent quality for free. Of course, you can doubt my not very humble words. That is why I invite you to try the StarOffice suite. After all, it is free. And if you decide to pay his dues to Uncle Bill, that is up to you, it is your money, after all. But, as for schools, it is also your money that is at stake. So, what do you prefer? That your government pays its share year after year, therefore your taxes, to Uncle Bill, or a free office suite? Do not hesitate to send a little email to your MPs if you believe that free is better than $$$. StarOffice Office Suitehttp://www.sun.com/products/staroffice/ Hey, it's Philippe There are some emails that we always like to receive. And those from Philippe Trolliet, a loyal reader, are always a real pleasure to read. I met Philippe in another life, when I worked in the field of professional audio. Philippe was part of this team of creators and trippers who haunted the corridors of the National Film Board. Now retired, Philippe continues to be interested in computers and audio. And he doesn't hesitate to send me his little bubbles full of wisdom. "Following your column, let me tell you that this is not the first time that Digidesign has offered Pro-Tools for free; a few years ago, it offered version 3.4 on CD to anyone who requested it. "Concerning "sound treatments", since the publishers are not French, I am always surprised to never hear about noise. Is it because the products are only intended to be heard through a thunderous system in a Cherokee on a highway with a construction site? "Or are they only for the deaf and perhaps the hard of hearing? Because most of these computers are terribly noisy, because of the fans and hard drives, especially the ones that spin very fast. Whenever possible, we banish them to a room other than the user's. And that's without counting the electronic noise generated inside a computer and which appears even in a 16-bit environment, so imagine 24 bits" And this is one of the reasons why serious systems, not only Pro-Tools, Sonic Solutions, Saadie, Waveframe, Cedar, favor audio cards outside the computers, as well as cards with digital signal processors that allow the immense mass of signals to be processed in real time, which was not always the case: I remember certain operations on Pro-Tools or Sonic Solutions that were left to calculate for minutes or hours before being able to judge the result! "But all this brings me back to one of my obsessions: it is not the tool that makes the worker. A writer can use a pencil or a computer but the story, the text is in his head, not in the computer, which can simply make corrections easier. And layout is the job of the typographer, who, with lead or a computer and a specialized software package, will know how to make this text beautiful, readable, and will make a potential buyer leafing through the book want to buy it. And if you give the Cherokee to Jacques Villeneuve, to take the start of an F1 Grand Prix, I will leave it to you to estimate the results... "And, for the sound, I remember a Herbert von Karajan record, Also sprach Zarathustra, by Strauss, released by Decca in the fifties, whose dynamics were absolutely fabulous and approached 70 dB. I had measured it and never found it again, even on digital media. "This work could only be listened to in exceptional conditions, a quiet place deep in the countryside, because if you adjusted the volume to hear the first pianissimo sounds, the walls fell towards the end of the crescendo at the beginning of the work. In short, another long email. And all my friendship." - Philippe Trolliet It's not the tool that makes the worker Indeed, friend Philippe. Thank you for bringing us back to Earth. I completely agree with you (do you mind if I use the familiar form?). It's not the tool that makes the worker. But you would be surprised to see very ordinary people having fun creating truly "fun" works with these new generations of software intended for sound processing. A few years ago, because of the outrageously high prices of software and powerful computers needed for sound processing, a whole category of people were denied access to creativity. I know other people who are not video editors but who, thanks to software like Apple's iMovie, manage to make films that are little gems of imagination and creation. I know very well how to use powerful layout tools like QuarkXpress, but that does not make me a graphic designer, far, far from it. But, as a mediocre and frustrated musician, give me a software package like Acid and I have a blast. The same goes for today's digital technologies compared to good old analog. There are these gems that are still references. And yet they were produced decades ago. But, despite technological prowess, whether digital or analog, it is possible to overlook poor technical performance to focus solely on the artist's execution, his vision of a work. I remember that fabulous and moving performance by Dame Kathleen Ferrier in Mahler's Le Champ de la Terre, when she knew she was on the verge of death. The tears, my friend, the tears. And yet, as for the technique, we can come back. And all my best to you too. Shall we have a drink soon?

## ###ARTICLE\_START### ID:542

There is something new in Quebec in the world of e-commerce and free software with the creation of LinuQ (or Linux Quebec), a group of specialized people whose goal is to promote and popularize free and open systems and software in the Linux universe. "It is not because software under the Linux operating system is open and often free that it is piracy, says Daniel Renaud, vice-president of LinuQ in an interview. It is not because software is free or less expensive that it is not good." He then gives a series of examples including the costs of the Verisign license, for secure and safe transactions on the web. Each license costs $1000 US per year, while the same under Linux costs $150 US. The same goes for a whole list of software that can be adjusted according to the needs of companies and users, which is not possible with the closed software of major producers. He states that a web server solution and e-commerce software for an SME could cost between $4,000 and $5,000 instead of $100,000 with conventional software on the market. "About 60% of web servers on the Internet use Apache software, a free and open source software," states Mr. Renaud. "Thousands of programmers participate in the development of free software. IBM, HP and Dell companies use this software. The sites of Branchez-vous, Netgraph, the newspaper Le Devoir, RDS, the Montreal Exchange, and many others, use the Apache server with the Linux operating system." Alternative solution For the LinuQ group, free and open source software makes it possible to offer the public and businesses an alternative to more expensive commercial solutions while sometimes having superior performance and greater stability. What's more, the software can be adapted to each business by a programmer without changing the users' habits. LinuQ also announced this week a program to create a set of free and open source e-commerce software. In addition, the group organizes on the second Wednesday of the month popularization and explanation conferences on free software and the Linux system. The locations and times will be on the site www.linuq.org. In addition, with the computer science department of Laval University, LinuQ will offer six-credit internships for computer science students who will be able to work on developing solutions for e-commerce. LinuQ is a non-profit organization whose board of directors is composed of people from the private sector, the government sector, students and employees of Laval University. People who want to become members of the organization can do so for an annual contribution of $2 for students and $20 for workers. YTherrien@lesoleil.com

## ###ARTICLE\_START### ID:543

"Act to ensure that all that is good becomes common good and that all is free for those who are free," writes Nietzsche in The Traveler and His Shadow. Paolo d'Iorio, a specialist in the philosopher, chose this aphorism to start his book HyperNietzsche. His project is to use the Internet to communicate sources concerning Nietzsche and connect researchers. On a multilingual site, one will find regularly updated information, digitized manuscripts, a database, and articles. A committee of scientists will validate the contributions to avoid them going through editorial purgatory. The HyperNietzsche site is launched on the occasion of a triple conference entitled "A Good European in Cosmopolis" (Paris, Weimar, and Bologna) organized for the centenary. The book HyperNietzsche, edited by Paolo d'Iorio, is published on October 16 in the "Ecritures électroniques" collection of PUF. It will even be fully accessible on the publisher's website, with a discussion forum. As a good Nietzschean, Paolo d'Iorio is a fervent supporter of Opensource. Clarification Credit error in the "Cahier Livres" last week, for the illustration representing a row of photographers. It was not Roger-Viollet, but Keystone.

## ###ARTICLE\_START### ID:544

"I won't do this dirty work for you." Don Marti, a specialist in new technologies for Linux Journal, the magazine dedicated to the free operating system, refuses to participate in a competition organized by the music industry to test copyright protection software. In their crusade to ban Napster and MP3.com, publishers including Universal and Canal + and industrialists including Sony and Intel, launched last week the idea of a particularly perverse competition reserved for hackers. On October 7, it involves testing six copyright protection files for a reward of 76,000 francs for each successful hack. The Electronic Frontier Foundation, an association for the defense of civil liberties on the Net, as well as many supporters of "open-source" have called for a boycott of this operation, called SDMI (read "Safe Digital Music Initiative"), of which the phonographic publishers at the origin of the lawsuits against Napster and MP3.com are members. The genius hackers therefore seem not to want to be bought. In any case, the leader of the resistance, Don Marti, assures that the majority of pirates, and in particular the most gifted, will boycott this operation.

## ###ARTICLE\_START### ID:545

One of the fathers of the Internet, Vinton Cerf, will have to rule in the Yahoo! case. Not on the substance of the matter: can we organize auctions of Nazi objects on the Internet? but on the technique: how to prevent French Internet users from accessing such auctions? Cerf, designer of the communication protocol used by the Net, is in fact one of the three experts retained by the parties in the Yahoo! conflict and the plaintiffs: the Licra and the UEJF (1) to study the filtering devices that could be imposed on the American portal. In May 2000, the interim relief judge, Jean-Jacques Gomez, condemned Yahoo on the grounds that it is illegal, in France, to exhibit Nazi objects with a view to their sale. More generally, these auctions accessible from French territory constitute, according to the judge, an "offense to the collective memory of the country". Experts. On August 11, Jean-Jacques Gomez requested that three experts look into the filtering problem in order to provide him with a report for the next hearing, scheduled for November 6. The court appointed Frenchman François Wallon, a legal expert in the field of IT. The parties still had to agree on the names of two American and European experts. "Each made their proposals, and François Wallon decided," Yahoo France reported. The name of David Rosenthal, one of the five experts proposed by the Licra, was rejected because he had already spoken publicly on the case. The European expert will be British Ben Laurie, a consultant in London, who is also a specialist in "free software," developed outside the constraints of the market. He is a director of the Apache Software Foundation. A decisive opinion. The American will therefore be Vinton Cerf, founding president of the Internet Society, who is moving to the new telecom giant, WorldCom, as vice president. The exchanges between the three men will be mainly by e-mail. In 1974, Cerf had defined with his compatriot Robert Kahn the fundamental principles and basic protocols of what would become the Internet. Two years later, he joined DARPA, the American Defense Advanced Technology Projects Agency, which had created the embryo of the global network under the name Arpanet. The aim was to design a computer network capable of withstanding a nuclear attack. The pioneer's participation in the debates should help to broaden the audience of the trial, which raises two major issues: the difficulties posed to national laws by the global nature of the network, on the one hand, and the limits of freedom of expression on the Internet, on the other. Given the man's notoriety and legitimacy, Vinton Cerf's opinion could be decisive in the Yahoo! Evolution affair. During a visit to Paris in 1999, the American had expressed his views. He had considered it necessary to adapt the laws to the developments brought about by the Internet. "We must avoid problems such as those we experienced with the Altern affair," he had stressed, referring to the condemnation of the "alternative" host of personal sites and the French debates linked to the responsibility of technical intermediaries. "Laws can have a beneficial or destructive effect on the Internet," he had added. But, in the case of Yahoo.com, the problem posed is significantly different: how to bend technology to bring it into compliance with the law? (1) League against anti-Semitism and racism, and Union of Jewish students of France.

## ###ARTICLE\_START### ID:546

As a columnist, it is always a pleasure to receive emails from readers in response to a column, whether the email is positive or negative. Because you shouldn't imagine that your not-so-humble columnist only receives pretty flowers. Sometimes, the pot arrives faster than you think. And the reader has every right to respond to his columnist. For example, two readers, Luc LeBlanc and Frédéric Lévesque, reacted quite "manly" to the use of somewhat wacky terms to describe Microsoft's SideWinder Game Voice. Not being fond of these English terms, I wanted to point out that it might be a good idea for companies to think about Frenchifying some of their product names. Even Mrs. Microsoft responded to this little column by sending me the following message: "Mrs. Microsoft takes good note of finding a French translation." In any case, so much the better if Mrs. Microsoft manages to get the Redmond giant to move. To my two offended readers, I answer, I promise, I will not talk about "globulomadulamachintruc" anymore. And there you have it! Again and again with the email, this time, Marc Lebel talks about a problem common to all users of Win "Plante" 98: the stability of their computer... "I often encounter performance problems with my PC. However, I know the origin of the problem. My children install games and programs (often free demos) and the installation is not always done correctly. "I don't like the idea of reinstalling my Windows every six months. There are all the programs plus software patches to make everything really optimized. Before reinstalling, I would like to know if there are programs that can optimize the Windows registry without having to reinstall Windows completely." Mr. Lebel, I still believe that with the current Windows, you unfortunately have to reinstall it every six months. However, good "software" hygiene will surely help your computer to be more stable. A few weeks ago, I talked about a suite of programs made by the company OnSite, Fix-It Utilities 2000. You can visit the Devoir website to find the article in question. Fix-It has, among other things, a very effective registry optimizer. I recommend it to you without reservation. An OpenSource Photoshop A quick email from Nicholas Dickner... "You must already be aware of it, but you never know: http://www.gimp.org/~tml/gimp/win32." In short, what Mr. Dickner is telling us is the availability of a Windows version of the excellent processing software The Gimp, available since its very beginnings on the Linux platform. Furiously resembling Photoshop, The Gimp has established itself as the reference tool in the Linux environment due to its power and flexibility. Now that The Gimp is available for Windows, users have access to professional software but distributed according to the OpenSource model. The price? Free my friend. Speaking of penguins Since we are talking about the world of the Penguin, Danyck Gagné takes the opportunity to relaunch me on this eternal question: which Linux distribution to choose? "I'm hesitating. Ever since I started reading your columns, the Penguin universe has piqued my curiosity. So I thought: why not try it and see what it's all about? I have a Pentium III 600 with a small 128 megabytes of RAM. My 20 gig disk is partitioned 50/50. So I had the idea to take advantage of this partition and install the Linux operating system on disk D while still keeping Windows on C. But before embarking on this perilous enterprise, since the configuration of the Linux platform is not known for its ease of installation and configuration, I'm calling on the not very humble columnist that you are to advise me. "Hey, I'm thinking about it, I tried Windows ME last weekend, a clean install. What stability and what lightness! Windows would have gained a lot by keeping its driver database a little more up to date, but for the rest, I'm very surprised. I admit that I didn't mistreat it too much. In short, for "normal" use, it's very good! And as soon as I find an update for Sympatico High Speed, I'll convert." Ah! This great question. Some will tell you that the Debian distribution is the most in line with the OpenSource spirit, and they are right. Unfortunately, Debian has never been known for its user-friendliness. Damn! My suggestions? Fall back on the Canadian publisher Corel and its Corel Linux distribution, based, it must be said once again, on the Debian distro. If you want to be at the cutting edge, then the latest Linux Mandrake is just as user-friendly, while integrating the latest software developments in the Linux world. There is also the distribution of a Vancouver company, Stromix, which I have heard a lot of good things about, this one also being based on Debian. But not having tried it, I can't give you any real comments on it. Dell and Windows 2000 Mr. Langelier, from KLMNOP, is the happy owner of a Dell laptop. Acquired with Windows 98, Mr. Langelier wants to make the big leap into the 2000 universe. But will Dell's service be up to par? "Encouraged by your very positive review of Win2000 Professional on May 29, I was about to rejoice in scrapping Win98 (2nd ed.) until Dell technical support (I bought a Latitude CPxJ 650 last May) informed me that Microsoft only allows them to support the system they originally sold: Window 98, and that I will have to obtain my support directly from Microsoft if I upgrade to Win2000. Isn't that surprising? It's not always easy to get adequate support. "If, in addition, I now have to submit to the finger pointing that is sure to occur, I don't see how I will be able to make this transition smoothly before my support contract with Dell expires, that is to say in 2002! Have you encountered a similar situation on your side? Is there a solution?" Indeed, the whole thing is quite surprising. Unfortunately, I don't have an answer to give you today, not having been able to contact a manager from Dell's technical department. However, I am publishing your letter so that readers can already be warned of the risks that can arise when changing operating systems when you have a warranty with a manufacturer. I hope to get back to you on this next week. In the meantime, dear readers, be careful if you buy a PC and later want to change operating systems. And as Aunt Lucille, that charming old lady who lulled your not-so-humble columnist with wonderful tales when he was a child, used to say so well: "Cui-cui-cui, my story is over!"

## ###ARTICLE\_START### ID:547

Barbed wire This is the magic recipe for making a very simple idea spit out profits: first, choose a banal, non-patentable concept that can bring in big money (distance learning, for example). Then, add a few computers and a pinch of Internet. Finally, fill out a form and wait for the patent to be issued. The Japanese telecom giant NTT understood this well, by filing in October 99 an Electronic Education System using the Internet that could prevent any university or company from providing distance learning. In this little game, the way is open for the appropriation of the ideas themselves, in flagrant violation of the spirit of patent laws, intended to protect the technical expression of a concept and not the concept as such. To achieve this goal, it is enough to "revamp" marketing, recruitment or organizational methods with software sauce in order to obtain a patent. In the United States, high-tech companies have thus protected certain parts of their business plan rather than programs. This is the case of Priceline, which holds a patent on the basic concept of its site: letting buyers set the price they are willing to pay for a product or service. A major risk of slippage: "The entire functioning of society will increasingly take place on computers," explains Bernard Lang, president of the French Association of Free Software Users. "There is therefore a risk that everything will be controlled by patents." The goal is to comfort the company's employees and shareholders. "Patents allow us to promote the work of our thirty developers," explains Nicolas de Saint-Etienne, the legal manager of Netvalue (a start-up specializing in audience measurement on the Internet). This company has filed three patents, including a "process for analyzing and surveying activity on a communications network, and in particular activity relating to e-commerce." Another advantage for the company: a patent joins its assets. It increases its value. "It materializes our know-how," says Alexis Helcmanocki, CEO of Datatrader. "It makes it tangible." This company filed the process for customizing the home page of the Ohmydeal.com website (e-commerce), a simple assembly of existing software. However, it was accepted by the European Patent Office. "This patent benefits us more internally than externally," explains Alexis Helcmanocki. "We're not going to quarrel with all the sites that do the same thing as us. This patent has allowed us to sit down and write the characteristics and advantages of our process. It's a fair reward for the work done." The minefield This strategy is reminiscent of the game of Go. It involves protecting a patent by defending it with a second layer, a "net" of other patents. The net can also be used for offensive purposes: it is then used to surround a competing patent, with the aim of reducing its scope of use. This is how Priceline filed dozens of patents around its reverse auction model (the consumer gives his price, the system decides whether it is accepted). At the end of 1999, this company filed a lawsuit against Microsoft, accusing it of applying the same model to its Expedia travel site. "Priceline.com has invested years of time and money to build an effective economic model and build a portfolio of patents around it," declared a Priceline executive at the time. "This is a clear attempt by Priceline to slow us down and avoid competing with Expedia on its merits alone," replied Microsoft. A "minefield" strategy, in the words of Pierre Breese, an industrial property attorney: "We are filing a large number of mines, some of which may be ineffective, but which require anyone who wants to enter this territory to probe the ground very carefully." The fight against the big guys The tactic consists, for young companies, of imposing themselves on the bigger ones. "Lots of small companies file patents in order to claim exclusivity over a process," explains Olivier Ezratty, director of marketing and communications at Microsoft France. This is evidenced by the lawsuits filed by the small (or rather "young") companies Amazon.com and Priceline.com against the giants Barnes and Noble and Microsoft. In fact, the patent system puts the small and the big on an equal footing. With one nuance: filing a patent represents a cost of around ten thousand francs (for France). Nicolas de Saint-Etienne, legal manager of Netvalue (Internet audience measurement) confirms: "It allows us to protect the small against the big. Patents allow us to establish the fact that we have our own technology that sets us apart from established companies. When you tell a big company that you have a patent, it clarifies things." The ambush We will call it the ambush. All you have to do is file a patent, leave it to sit in a box, and then dig it up a long time later, when everyone has gotten used to using your software for free. The American firm Unisys sparked an outcry last year by demanding royalties on any use of a graphic format called GIF, which allows images to be displayed on a website. Well played: the patent dated back to... 1985. If Unisys had demanded money at that time, this tactic would not have paid off, because royalty-free GIF competitors have existed for many years. All you had to do was wait for GIF to become an essential standard to come out of the woodwork. "Granting a patent for twenty years is too long," says Jean-Paul Smets, who started the anti-patent protest. "In this sector, innovations are faster than in chemistry or mechanics."

## ###ARTICLE\_START### ID:548

How to find a new model for free website hosting? After the closure of altern.org, whose founder Valentin Lacambre preferred to close the door following the legislative provisions on hosts adopted at the end of spring (1), the question arises acutely. After having debated it for a long time through mailing lists, three Internet users with a focus on social media (Alexis Braud, a specialist in multimedia integration in Sarthe, Mathieu Labonnelie, employed in Lille in marketing and mail order clothing, and Olivier Zeblocky, a writer-journalist based in Ile-de-Ré) created the site Ouvaton. net (www.ouvaton.net) at the end of July, "the first self-managed host in the history of the Internet" according to its creators. Start-up chef. The altern.org model was attractive: free, without advertising and avoiding any commercial exploitation of its subscribers' data. But its main limitation was to be defended by Valentin Lacambre, a single and therefore vulnerable man. The three founders of Ouvaton, themselves, propose a form of consumer cooperative, where each user becomes hosted/host, and solely responsible before the courts for the content of their site. "We were formed to compensate for the absence of an "ethical" host in France and to avoid the weight of such a structure resting on just one person," explains Alexis Braud, who already has a slogan: "To stop being start-up turkeys, let's become cooks. Let's be hosted-hosters." The three founders did not want to leave the hosting activity in the sole hands of "companies that profit from the creation of content to enrich themselves on the backs of their shareholders." Another original feature of the company is that the three men have never met in person to date. They managed to set up the project this summer by corresponding only by email. In the last ten days, they have started offering a minimum hosting service to 80 co-owner Internet users. The "real" launch is planned for mid-October. "Each of the 80 Internet users is putting their hand to the task of developing Ouvaton. In this sense, our project is clearly the heir to the housing cooperatives of the beginning of the century. In order to find decent, cheap housing without falling prey to abusive landlords, people would come together to build their house collectively, then rent it or buy it from the cooperative. This is where the HLM movement comes from," explains the Ouvaton charter. Seven founding principles. To become a member, the Internet user will have to subscribe to a share of 50 to 100 francs, which will be paid in full when the person concerned leaves. "We do not refuse to have commercial activities, but they will be, as for any consumer cooperative, less than 20% of turnover," summarizes Mathieu Labonelle. And to state the seven rules of the road of the Ouvaton cooperative: "No modification of content without a court order, no disclosure of data outside of a legal procedure, no commercial use of personal data, no advertising imposed on the sites, management taken care of by representatives of the hosted, use as systematic as possible of "free" software and training of Internet users whatever their level." In loyalty to their ideals, the three founders did not seek venture capital, preferring to work with companies in the social economy sector and the State Secretariat for the Solidarity Economy. (1) In reaction to amendments introduced in the law on freedom of communication, intended to "clarify" the responsibility of hosting companies.

## ###ARTICLE\_START### ID:549

Every day, stock exchanges publish a list of winners and losers at the end of trading, the ten companies that made the biggest gains of the day in dollar terms, and those that lost the most ground. Believe it or not, investors rely on this information to try to make money. They naturally rush to buy the winners, which they therefore usually buy at an overpriced price, only to sell them a few days later, when the prices have already fallen. These budding speculators have not even noticed that these lists contain two dozen companies, almost always the same ones, which are alternately among the winners and losers. When a company records a big gain, you can bet that it will lose some ground the next day. The opposite is also true: when a company declines too sharply one day, there is a good chance that it will regain ground in the following days. Let's take an example. Last Thursday, the economic and financial news informed us that Corel's founding president, Michael Cowpland, was resigning from his positions as chairman of the board of directors and president and CEO of his company, founded fifteen years ago. On this occasion, several daily newspapers illustrated the news by displaying a graph showing the behavior of Corel's stock over the past year. The stock was seen trading around $10 last fall, before literally soaring to $60 in December. Last Wednesday, the stock rose $0.35 to $5.75. It seems that the market appreciated the president's departure. What had caused the stock to soar in December? The announcement that the company was going to launch into the development of Linux software, a young competitor to Microsoft's Windows, which equips approximately 80% of personal computers worldwide. This overwhelming dominance has earned Bill Gates and Microsoft a resounding lawsuit for abuse of monopoly, a case that will drag on in the courts for a long time to come. Bill Gates has always jealously protected the source code of Windows, that is, the millions of lines of coded programming that were used to build it. Faced with this well-protected industrial secret, a young Finnish computer scientist, Linus Torwalds, undertook in 1991 to launch an open-source operating software, freely accessible to all users, who can therefore modify it and adapt it to the needs of their company. Linux software, personified by a small sitting and smiling penguin, is now starting to take up a lot of space in the boiling world of computing and the Internet. Michael Cowpland, once considered the Bill Gates of the North, therefore left Corel in serious financial difficulties, of which he still remains the main shareholder, to launch the Linux adventure. In its early days, Corel made its reputation with CorelDraw drawing software. Later, Cowpland bought WordPerfect at a high price, which he also saw as having a fantastic future. Today, Linux is the one that promises the world, according to him. We'll see. For the time being, investors, or rather speculators, bought Corel shares last winter at over $50. They believed Michael Cowpland's fine speeches. It is not easy to determine who the winners and losers will be in the next five, ten or twenty years on the stock markets. The famous Warren Buffett, who started investing in the stock market with $100 in the 1950s and whose fortune is now worth around $30 billion, is still hesitant to invest in high technology because he feels unable to read the future of companies in this sector. Even in conventional sectors, a veteran like him can still make mistakes. Two years ago, he sold his blocks of shares in McDonald's for several billion dollars. Last winter, in front of his shareholders, he wondered if he had not sold this investment a little too early. At the last meeting of Bombardier shareholders, president Laurent Beaudoin reminded them that if they had owned 1,000 shares of the company in 1985, they would hold 128,000 today, following seven stock splits in fifteen years. In 1985, Bombardier had never flown a plane in its life. Everyone is looking for the Bombardiers of the next fifteen or twenty years. Some look at Saputo, the king of cheese that tops pizzas. Others learn about ADF (Au Dragon Forgé) from the Paschini family, which is on the cover of this month's Commerce magazine. Still others think of Gildan, a manufacturer of T-shirts (gaminets, as they say at the Office de la langue française) and other sportswear, whose sales jumped 42% in the first nine months of the current fiscal year, while profits literally exploded by 175%. But for an undeniable success like Bombardier, dozens and hundreds of other companies will disappoint investors and perhaps make them lose a lot of money. There will be other Cinars and other Corels, which will make headlines for a few years, before disappearing with investors' money. Two weeks ago, at the annual meeting of Téléscène, its directors candidly admitted that they were looking for a major shareholder "with empty pockets." A small shareholder simply asked the following question: "The stock is now worth $0.85; can you tell me when it will return to $20, the price I paid for it?" Warren Buffett, the wise old man, often repeats that the number one rule of investing is to never lose money; the number two rule is to never forget the first one.

## ###ARTICLE\_START### ID:550

Toronto - The sudden resignation of Michael Cowpland, the colourful founder of Corel, has raised new questions about the future of the fragile software maker, analysts said yesterday. Caught between slowing sales of its older products and weak demand for its new Linux product line, the company is now in the hands of a relatively unknown executive who has the difficult task of turning the company around. "Mike Cowpland has been in charge for so long. Now someone else is sitting in his place and we're going to see who really has control," said David Wright, a technology analyst at BMO Nesbitt Burns. "The future is uncertain in terms of product lines, the maturity of the company in the marketplace and the future of the business, now that the company's management and financial direction are in question." Interim leadership Derek Burney, the company's former chief technology officer, has been named interim president and CEO until the position is filled permanently. Burney has been with the company since 1993, giving him veteran status at a company known for its high turnover of executives. Despite his appointment, analysts are unsure how Burney will handle his new responsibilities, particularly given the daunting challenges facing Corel. Deep staff cuts are expected at the Ottawa-based company, best known for its WordPerfect and CorelDRAW word and image processors. It last fall ventured into Linux, an open-source operating system that fans say is more stable and reliable than Microsoft's popular proprietary Windows operating system. In June, the company posted a significant second-quarter loss and suggested the third quarter would be similarly weak. Corel, which Michael Cowpland predicts will return to profitability in the fourth quarter, closes its third quarter on Aug. 31. The company's troubles can be attributed in large part to its failed attempt to acquire Inprise/Borland, a deal that would have added a valuable $240 million to its coffers. Cowpland said he first discussed resigning on the board about three months ago - around the time the merger with Inprise/Borland failed. After that failure, Corel announced that laying off about 20 percent of its workforce in June would save it about $11 million a year. Deeper staff reductions are planned to help the company meet its goal of $40 million in annual savings. "They have to be profitable in their Windows business, with a positive cash flow, which means, in my opinion, they have to cut expenses because I don't think they can grow their revenues much, or even do it fast enough," said Jean W. Orr, an analyst at Bluestone Capital. "I don't think they have to abandon Linux, but they may have to cut their budget for it for a while," the analyst added. Corel shares rose 15 percent in trading yesterday as investors appeared relieved that the reign of the controversial Cowpland, who has led the company he founded since 1985, is over. Corel shares rose 35 cents to $5.75 yesterday on the Toronto Stock Exchange. Corel's stock has been on a rollercoaster ride this year, hitting a high of $64.65 in December on Linux fever, but falling to $3.72 in May after the company announced a $30 million bailout deal that would result in significant equity dilution. Analysts say the idea that Corel could be saved by splitting up and selling its software line -- a move that would inject cash into the company's empty coffers -- is unlikely. Corel desperately needs a flood of revenue from all its businesses, analysts said, and the list of companies likely to be interested in Corel's highly competitive software lines is small. The prescriptions for restoring Corel's financial health are limited, and the market seems unlikely to be patient with the company's and Burney's bailout plans.

## ###ARTICLE\_START### ID:551

Toronto - The sudden resignation of Michael Cowpland, Corel's colourful founder, has raised new questions about the future of the ailing software maker. Caught between slowing sales of its older products and weak demand for its new Linux product line, the company now finds itself in the hands of a little-known executive who is challenged to turn the company around. "Mike Cowpland has been in charge for so long. Now someone else is sitting in his shoes and we're going to see who really has control," said David Wright, a technology analyst at BMO Nesbitt Burns. "The future is uncertain in terms of product lines, the maturity of the company in the marketplace and the future of the company, now that the direction of the company and the financial direction are in question." Derek Burney, the company's former chief technology officer, has been named interim president and CEO until the role is filled permanently. Burney has been with the company since 1993, making him a veteran at Corel, which has a reputation for high executive turnover. Despite his appointment, analysts have questioned how Burney will handle his new responsibilities, particularly given the challenges facing Corel. Deep staff cuts are expected at the Ottawa software maker, known for its WordPerfect and CorelDRAW word and image processors. The company last fall ventured into Linux, an open-source operating system that fans say is more stable and reliable than Microsoft's popular Windows operating system, which is proprietary. Questionable financial results In June, the company posted a significant second-quarter loss and said its third quarter, which ends Aug. 31, would be similarly bad. Michael Cowpland has predicted Corel will return to profitability in the fourth quarter. Much of the company's woes can be attributed to its failed attempt to acquire U.S.-based Inprise/Borland, a deal that would have added a valuable $240 million to its coffers. Mr. Cowpland said he first raised the possibility of resigning to the board about three months ago, around the same time his marriage to Inprise/Borland fell apart. After that failure, Corel announced that it would lay off about 20 percent of its workforce in June, saving about $11 million a year. Deeper staff cuts are planned to help the company meet its goal of $40 million in annual savings. "They have to be profitable in their Windows business, with a positive cash flow. That means they have to cut expenses, because I don't think they can grow their revenues much or even do it fast enough," said Jean W. Orr, an analyst at Bluestone Capital. "I don't think they have to abandon Linux, but they may have to cut their budget for a while," he added. A rollercoaster year Corel shares gained 15 percent in trading yesterday as investors appeared relieved that the reign of controversial Michael Cowpland, who has led the company since 1985, was over. The stock gained 35 cents yesterday to $5.75 on the Toronto Stock Exchange. On the Nasdaq, the stock was up $7/32 to $3-7/8. Corel's stock has been on a rollercoaster ride this year, hitting a high of $64.65 in December on Linux fever, but plunging to $3.72 in May after it announced a $30 million bailout deal, resulting in significant equity dilution. Analysts say the idea that Corel could be saved by splitting up and selling its software line, a move that would inject cash into its empty coffers, is unlikely. Corel desperately needs revenue, analysts say. And the list of companies that might be interested in Corel's highly competitive software lines is quite small. So the prescriptions for restoring Corel's financial health are limited, and the market seems unlikely to have much patience with Mr. Burney.

## ###ARTICLE\_START### ID:552

Ottawa - Corel Corp. founder, chairman and CEO Michael Cowpland announced yesterday that he is stepping down from the helm of the struggling Canadian software maker to focus his time on startups focused on the Linux operating system. Cowpland, who founded the company in 1985, said he would no longer be involved in Corel's operations but would continue to serve on the board and as a technology advisor. The colourful figure expressed confidence in the company's success despite his departure. "I'm still the largest shareholder (in Corel), so I'm still going to enjoy its success," he said at a news conference. The company's current chief technology officer, Derek Burney, has been named interim chairman and CEO. Cowpland said he will now focus his time on new Linux companies. Linux is an open-source operating system that proponents say is more stable and reliable than Microsoft Corp.'s popular, proprietary Windows operating system. Cowpland added that Corel is still not for sale and that he has no plans to start a new company to compete with it. Analysts were not surprised by the news, pointing to the long list of financial problems Cowpland and his company have experienced in recent months. The Ottawa company, best known for its WordPerfect and CorelDraw word and image processors, has been venturing into the burgeoning Linux market since last fall. But it has been in serious financial trouble, with disappointing quarterly results and a loss of consumer interest in its older product lines. In June, Corel announced it was laying off 21 per cent of its workforce, the first step in a financial turnaround plan aimed at saving US$40 million a year. Cowpland had forfeited his salary the same day the layoffs were announced. Cowpland still faces three counts of violating securities laws, in addition to another charge against his personal holding company. If convicted, Cowpland could face up to two years in prison, a fine of up to C$1 million and another fine of up to three times the profits made from any illegal activity. Cowpland said his resignation had nothing to do with the charges and that no settlement has yet been reached regarding them. Corel shares ended yesterday's session up 5 Canadian cents at C$5.40 on the Toronto Stock Exchange.

## ###ARTICLE\_START### ID:553

The Middle Kingdom is waging war against the Microsoft empire. In early August, the Ministry of Industry and Information reported China Daily that it took up the cause of Linux, a rival operating system to Windows and the figurehead of "free software." The RedFlag company, created in the wake of the Chinese Academy of Sciences, has developed its own version of Linux. The latest version of the software was greeted with this enthusiastic comment from a ministry spokesperson: "This initiative will break the monopoly of Windows on the Chinese market." The software is distributed free of charge, with RedFlag only making money from services. According to a source cited by the online magazine Salon, there are two million Linux users in China, compared to more than twenty million for Windows.

## ###ARTICLE\_START### ID:554

The Yahoo! case is bogged down in technicalities. On Friday, interim relief judge Jean-Jacques Gomez ordered new expert reports in order to better understand the process that would allow the American portal to prevent French Internet users from accessing its virtual sales room. Which hosts boxes of Zyklon B and other commemorative objects from the Third Reich. A new hearing was set for November 6, without any financial penalty being ordered during this period. Camped on the benches of the first chamber of the Paris High Court, the three parties waited feverishly for the judge's decision. First, Jean-Jacques Gomez reaffirmed the jurisdiction of the interim relief judge to decide the case. Recalling that the damages noted were suffered in France, the magistrate ironized on Yahoo!'s "feigned naivety" Inc. (1), which claims to operate only on American territory, while "its vocation is to unite the maximum number of Internet users throughout the world". During the hearing on July 24, Yahoo!'s lawyers argued that a French court was not able to condemn an American company for an activity carried out on American soil. By recommending the creation of a panel of three experts, one French (computer scientist François Wallon, expert at the Paris Court of Appeal), one American and one European, the judge is giving himself time. He is giving the different parties the latitude to "agree on the name of an American expert specializing in the Internet and free software, and on the name of a European, both of whom must be "internationally recognized". The trio will have to verify that Yahoo! France has indeed implemented on its site the warnings that were imposed on it, namely a message for French Internet users who are about to cross the border to the American site, via a hyperlink. But above all, these Web specialists will have to go through the reports of the experts from both parties, decide on the nature of the information likely to facilitate the filtering of French Internet users. Finally, draw up a list of the methods to be used. Reading this judgment has provoked various reactions from the plaintiffs. Marc Knobel, research associate at the Simon Wiesenthal Center and member of the Licra steering committee, is "generally satisfied" with the decision. "The judge needs experts? Very well, let's wait for them to meet, for them to work in complete objectivity. In any case, in two months, Yahoo! will have to close its sales room to French Internet users. A real debate on freedom of expression online now exists. It must no longer be used to undermine human dignity." More mixed, the reaction of the leaders of the UEJF (Union of Jewish Students of France) oscillates between bitterness and relief. Its president, Ygal El Harrar, deplores that the Nazi objects are still accessible at auction. "We condemn this college, because, while waiting for the experts to make their conclusions known, we are giving Yahoo! time and the objects of barbarity are still on sale." He is nevertheless pleased that this affair finally proves that "the Internet is not a lawless zone." "Legislation applies there," he notes. Recalling that they do not require a 100% reliable filtering solution, the anti-racist associations deplore the loss of time caused by these additional expertises. Time that Yahoo! seems to want to use to engage in dialogue with the plaintiffs. The director of Yahoo! France, Philippe Guillanton, notes that "the judge is finally asking the parties to sit down at a table. That is what we wanted." The two months granted by the judge are not displeasing to Yahoo!: "The judge believes he needs time to study the technical complexities caused by his decision of May 22 (2). Everyone wins: the Internet, its users and the judge," continues Guillanton. According to him, the Net is not a tool "designed to be open or closed. Since the user is the central part, a more educational approach is needed to fight racism than censorship." (1) In an interview with Libération, Yahoo! co-founder Jerry Yang mocked the "naivety" of the French justice system. (2) On May 22, Judge Gomez ordered Yahoo! to "put an end to the disturbance observed" by implementing appropriate technical solutions.

## ###ARTICLE\_START### ID:555

Las Vegas - John Draper, 57, is better known as "Captain Crunch" in hacker circles. An old-timer who was easily spotted last week in Las Vegas among the youngsters who came to participate in the eighth Def Con, the annual convention for young computer geniuses and other code tinkerers (4,900 participants, compared to 3,000 last year). Captain Crunch has little regard for the new generation of hackers: "There are more constructive actions than defacing Web pages: attacking pedophile sites for example. I find that today's young people lack political reference points in their actions." But Captain, whose first exploits date back to 1972, is willing to try to understand: "It's true that in my time there was Vietnam, the Cold War, so many opportunities to rebel. But I appreciate groups like the Cult of the Dead Cow [known in particular for having developed the Back Orifice software, which allows you to take control of a Windows PC], who have managed to keep their soul without taking themselves seriously. As long as Bill Gates is their enemy, they will have all my respect..." In his time, the old hacker practiced the only sport available to computer whizzes: phreaking, which consisted of hacking into switchboards to make free calls. On the surface, nothing has changed at Def Con: wires, cords and cables tangle on the tables of the Alexis Park Hotel in Las Vegas. There are about a hundred of them, huddled in front of their laptops in a large meeting room. Others are slumped in the hallways with a wireless connection on a local network created for the occasion. Hacking is about breaking down lines of programs to find the flaw in a server. Usually they do it at home, meet by e-mail or chat, know each other by pseudonyms. Here, they practice for three days, in a sort of private competition with techno music in the background. A test server is put to the test, you have to seize it, place your pawns, block the assault of the others. A sign warns: "Stay on the internal network. Do not leave it, or you will be excluded." Everyone must pay a $50 entrance fee. Same decor, but the atmosphere has changed. "A few years ago," explains a 32-year-old "old-timer," "most Def Con attendees were broke, we shared hotel rooms, chipped in to share gas. This year, I feel like my younger peers already have very well-paid jobs, some of them drive around in luxury convertibles. In my day, the community had more meaning and value." The shadowy hackers of the early 1990s can also walk around incognito: we've forgotten their names and faces. Sniping It would be a bit hasty to see this as a conflict of "young idiots living in an abysmal ideological void versus old sages guided by real values." Because it's all sorts. The worst: every year, Def Con organizes a little trip to the desert 30 miles from Vegas, during which a hundred or so ultras shoot various targets with pistols, just to let off steam. For them, the freedom to hack is protected by the Constitution, just like the freedom to own guns, and vice versa. Which does not fail to make the majority of participants uncomfortable, who refuse to take part in this little reactionary party, and are even embarrassed to have to comment on it. "The hacking "scene" continues to peddle all sorts of myths and caricatures," report sociologists from Laurentian University (Ontario, Canada), who have been studying the phenomenon for several years. According to them, hackers are too often presented as frustrated kids, who only play at defacing Web pages. On the whole, it is true, everyone has tried their hand at it. But most of them are mainly busy denouncing the flaws of major commercial software, campaigning for free software and publishing their own tools to share them for free. This ethic of "progress through exchange," continues the Canadian team, is the common denominator. "But he is not a salesman for the media and the rest of society." Fear of recovery The "havers" of computer code - the literal translation of the word "hacker", cheerfully overused and often wrongly translated as computer pirate - are torn between the desire for recognition and the fear of being recovered by dot-com mania. The organizer of Def con, Jeff Moss - aka Dark Tangent -, is also worried about the commercial excesses that threaten his event, increasingly popular with the media and recruiters. "The Red Hat company would like, insistently, to be granted the right to sponsor Def con in 2001. What do you think?" Jeff Moss asks the room. "No, no sponsor, never!", "Bad idea!" shouts the audience. Jeff Moss packs up his proposal, rather reassured. The potential sponsor, Red Hat Software, was nothing like Microsoft: this company promotes Linux, the symbol of free computing. "We're here to see each other and to talk among ourselves, we don't give a damn about the Wall Street Journal reporters who write bullshit because we don't offer them free beers," Jeff Moss continues to stroke his audience the right way. "They'll keep writing bullshit anyway," says one participant. The others agree, shouting Burn Them unequivocally. This year, about a hundred journalists have signed up. In order to clearly demarcate the camps, the badges of the "regular" participants are gray and display the word "HUMAN", while those of the journalists are flanked by the word "PRESS"... THE SECRET SERVICES ARE RECRUITING Are hackers still perceived by the authorities as irresponsible? Not really, judging by the comments made by Pentagon officials invited to speak at Def Con. "Join us," said Arthur Money, one of the representatives of the Defense. "We have the most sophisticated toys in the world," continued Dick Scheaefer, another egghead at the Pentagon. "If you want access to these toys and to be part of an elite team, we would like to talk to you about it." As every year, Def Con continued to entertain the gallery with its "Spot the Fed" contest. The goal of the game was to find a federal agent in the audience - from the FBI, the CIA or the powerful National Security Agency (NSA) - who came to participate incognito. As last year, an NSA agent was caught. Quite the height of irony for a representative of the secret service! But perhaps the man was not trying to be discreet. Jack Holloran, the agent in question, did not hesitate once he was spotted: he too immediately offered NSA scholarships to the young wolves, with the prospect of a high-ranking position once they graduated. Publicly, the offer was met with snickers. It is not known what happened next.

## ###ARTICLE\_START### ID:556

Las Vegas, special correspondent John Draper, 57, is better known as "Captain Crunch" in hacker circles. An old-timer who was easy to spot last week in Las Vegas among the youngsters who came to participate in the eighth Def Con, the annual convention for young computer geniuses and other code tinkerers (4,900 participants, compared to 3,000 last year). Captain Crunch has little regard for the new generation of hackers: "There are more constructive acts than defacing web pages: attacking pedophile sites for example. I find that today's young people lack political reference points in their actions." But Captain, whose first exploits date back to 1972, is willing to try to understand: "It's true that in my time there was Vietnam, the Cold War, so many opportunities to rebel. But I appreciate groups like the Cult of the Dead Cow (1), who have managed to keep their soul without taking themselves seriously. As long as Bill Gates is their enemy, they will have all my respect..." In his time, the old hacker practiced the only sport available to computer whizzes: "phreaking", which consisted of hacking into switchboards to make free calls. Slumped. On the surface, nothing has changed at Def Con: wires, cords and cables tangle on the tables of the Alexis Park Hotel in Las Vegas (2). There are about a hundred of them, huddled in front of their laptops in a large meeting room. Others are slumped in the corridors with a wireless connection on a local network created for the occasion. "Hacking" is about knocking down lines of programs to find the flaw in a server. Usually they do it at home, meet by email or chat, know each other through pseudonyms. Here, they practice for three days, in a sort of private competition with techno music in the background. A test server is put to the test, you have to take it over, place your pawns, block the assault of the others. A sign warns: "Stay on the internal network. Do not leave it, otherwise you will be excluded." Everyone must pay a $50 entry fee. Same decor, but the atmosphere has changed. "A few years ago," explains a 32-year-old "old-timer," most of the Def Con participants were broke, we shared hotel rooms, we chipped in to share the gas costs. This year, I have the feeling that my young peers already have very well-paid jobs, some of them drive around in luxury convertibles. In my day, the community had more meaning and value." The shadowy hackers of the early 1990s can also walk around incognito: their names and faces have been forgotten. Gunfire. It would be a bit hasty to see this as a conflict between "young idiots living in an abysmal ideological void versus old sages guided by real values." Because it's all sorts of things. The worst: every year, Def Con organizes a little trip to the desert 30 miles from Vegas, during which a hundred or so ultras shoot various targets with pistols, just to let off steam. For them, the freedom to "hack" is protected by the Constitution, just like the freedom to own weapons, and vice versa. Which doesn't fail to make the majority of participants uncomfortable, who refuse to take part in this little reactionary party, and are even embarrassed to have to comment on it. "The hacking "scene" continues to peddle all sorts of myths and caricatures," report sociologists from Laurentian University (Ontario, Canada), who have been studying the phenomenon for several years. According to them, hackers are too often presented as frustrated kids who only play at defacing web pages. On the whole, it is true, all of them have touched on it. But most of them are mainly dedicated to denouncing the flaws of major commercial software, campaigning for free software and publishing their own tools to share them for free. This ethic of "progress through exchange", continues the Canadian team, is the common denominator. "But it does not sell to the media and the rest of society." Fear of recovery. The "havers" of computer code, the literal translation of the word "hacker", cheerfully overused and often wrongly translated as computer pirate, are torn between the desire for recognition and the fear of being recovered by the "dot-com mania". The organizer of Def Con, Jeff Moss aka Dark Tangent, is also worried about the commercial excesses that threaten his event, which is increasingly popular with the media and recruiters (see box). "Red Hat would like, insistently, to be granted the right to sponsor Def Con in 2001. What do you think?" Jeff Moss asks the room. "No, no sponsor, never!", "Bad idea!" the audience shouts. Jeff Moss packs up his proposal, rather reassured. The potential sponsor, Red Hat Software, was not Microsoft: this company promotes Linux, the symbol of free computing. "Burn them." "We're here to see each other and talk to each other, and we don't give a damn about the Wall Street Journal reporters who write crap because we don't give them free beers," Jeff Moss continues, stroking his audience the right way. "They'll keep writing crap anyway," says one participant. The others agree, shouting "Burn Them" in no uncertain terms. This year, about a hundred journalists signed up. To clearly differentiate between the camps, the badges of the "regular" participants are gray and display the word "HUMAN," while those of the journalists are flanked by the word "PRESS." (1) A group of hackers known in particular for having developed the Back Orifice software, which allows you to take control of a Windows PC. (2) Def con (defense condition) is a code that would be used by the American defense in the event of a nuclear attack.

## ###ARTICLE\_START### ID:557

New York - The largest American publishing house, Random House, announced yesterday that it would begin publishing texts for the Internet only, starting in January 2001. The group, a subsidiary of the German giant Bertelsmann, has created a new entity for this purpose, AtRandom, which will initially offer a list of 20 titles of fiction and non-fiction (technology, management, biographies, memoirs). Each text will be available in digital format, by download, and in the form of copies, printed on demand, Random House said in a press release. It will not be sold in bookstores. The list includes texts by renowned journalists - Tad Friend (New Yorker), Robert Samuelson (Newsweek), Lewis Lapham (Harper's) - as well as biographies devoted to the singer Björk, the star computer scientist Richard Stallman and the chairman of the Federal Reserve Bank Alan Greenspan. The publisher will also offer exclusively on the Internet a first novel, Because she is beautiful", by New Yorker Cameron Dougan. Random House also announced yesterday the launch of the Modern Library, which will publish 100 books of classic literature on the Internet. American publishers have been multiplying online experiments for several months, the Internet being called upon to shake up traditional distribution networks in the sector.

## ###ARTICLE\_START### ID:558

Napster this, Napster that, mp3, Gnutella, Scour, etc. These are the words that have been heard on the Internet ever since the major American record companies decided to sue Napster in court, accusing it of deliberately encouraging the piracy of copyrighted music. Like any major trial in the United States, the Napster trial is likely to turn into a media circus and drag on. In the meantime, Internet users will turn to other means of exchanging files with each other. Because in this market, Napster is far from alone. There are dozens of ways to exchange information on the Internet. Napster has become the most popular in part because it focused on songs (in mp3 files) and because it is disconcertingly easy to use. Other networks that work exactly like Napster, using the same mp3 file exchange protocol, have also emerged in recent years and months (Opennap, Napigator, AngryCoffee, etc.). Several analysts are now predicting an explosion in the use of file exchange sites and systems. And not just music, but also videos, texts, photos, etc. Already, the Scour site (www.scour.com) offers its visitors thousands of music, video and photo files. The files that are offered directly on the site are, of course, free of copyright, but the same is not true for files exchanged by users between them, via the Scour Exchange software (www.scour.com/Software/Scour\_Exchange/index.phtml). A bit like Napster, Scour Exchange allows you to search for files in a bank of several tens of thousands of people. Users must identify files that they are willing to share, and Scour Exchange incorporates them into its database. Scour Exchange is so similar to Napster that record companies have already indicated that they will also sue Scour for the same reasons. Another similar company, iMesh (www.iMesh.com), also operates on the same principle. The Gnutella Difference Then comes Gnutella, a file-sharing protocol that is completely different from Napster, Scour, and the like, and that is likely to give music publishers a lot of headaches. Gnutella, unlike Napster, is a network of thousands of users, but it is not centralized anywhere. To make a simplistic comparison, let's say that Napster is a bit like Bell Canada, while Gnutella is a Chinese whispers, which communicates with the network by going through a computer, which is connected to three other computers, which are each connected to four or five other computers, etc. By downloading software based on the Gnutella protocol, you can connect to thousands of computers without ever being connected to a central server, as is the case with Napster, for example. Since no one owns Gnutella, it is therefore impossible to pursue or stop it. The problem is that the Gnutella system is still much more difficult to use than Napster, which prevents it from becoming as dangerous a network (for record companies). Gnutella was developed by a small American company, Nullsoft, which also created the popular WinAmp mp3 player. The two creators of Gnutella claim to have invented it to exchange recipes. Later, it has proven that it is much more music files that are exchanged on Gnutella. Ironically, Nullsoft was bought by America On Line (AOL), which recently merged with Time Warner, one of the largest music publishers in the world. In the days following the AOL-Time Warner merger, Nullsoft ceased all development of Gnutella. Since Gnutella is an open source protocol, it has now been taken over by computer whizzes around the world. The Future Few people really know how Internet music distribution and copyright enforcement will eventually find common ground. But there are some ideas. Several companies, including the giants Sony and Microsoft, are trying to develop a format that will be encoded in such a way that the user will have to pay royalties before they can play it. Even Napster, which is looking to make its system profitable, is reportedly in negotiations with Liquid Audio to sell music on the Internet while charging users for royalties. In a few years, there could be two ways to get music on the Internet: the simple, easy-to-use, better-sounding, and paid way; and the free, more complicated and lower-quality way. For more information... @ www.napster.com opennap.sourceforge.net www.napigator.com www.angrycoffee.com www.scour.com www.imesh.com gnutella.wego.com www.cxc.com (Mac version of Gnutella)

## ###ARTICLE\_START### ID:559

It's hard not to talk about Napster after the press coverage that followed the injunction against the headquarters. For once, let's talk about the network of networks. Although most industry observers somewhat expected it, the news of the injunction forcing Napster to put its servers to rest came as a bombshell. However, despite the self-patting by officials at the Recording Industry Association of America, the champagne today must taste rather bitter. Because with the new ruling that invalidates the injunction obtained by the RIAA, we are back to square one. But even if the RIAA had obtained a permanent judgment, and Napster's servers had gone permanently silent, like the seven-headed Hydra, other heads would have sprouted back with much more vigor. In fact, as soon as Napster was announced to be closed, other software of the same type experienced a marked increase in their downloads. In any case, and despite a future judgment that may well close Napster's doors for good, the next victim of the digital Hydra will be the film industry, which, with shivers, already sees the Beast landing in its corner of the country. But let's look at how it all works. You probably already know this, but the main feature of Napster software was to act as an intermediary between two Internet users who had a collection of MP3s. Napster's servers did not host any MP3 files, illegal or not, but rather a huge table of contents indicating the list of available files and which Internet users owned them. From this list, Napster put you in contact with the Internet user in question, and subito presto, the downloading of the requested file was an operation solely between you and the other person. In short, with the gag that it believed it was imposing on Napster, the RIAA had only just precipitated the entry of the new generation of software, those that do not use any server, and what is more, are available in free source code, that is to say, in the public domain or almost. The RIAA had an easy game to sue Napster, the culprit was easy to find, but with this new generation of software, who to sue? The public domain? Society, which has a broad back? To prevent the use of these new software packages, there is only one possible solution: simply shut down the Internet. And unlike Napster where one could only exchange MP3s, with these exchange software, one can now exchange any digital file: MP3s, video files, software, etc. While the press's attention is mainly focused on the crisis that the music industry is going through, there is one that is currently trembling with fear just at the idea of seeing these new softwares spread like wildfire: the film industry. Until recently, the secret of decrypting a DVD was considered the Holy Grail. Once again, technology, with the help of humans, has figured out how to decrypt DVDs, and today, a new file format that you will hear about in the coming months, DiVX, has appeared. With the help of very simple applications that ordinary mortals can use without much risk of errors, we can now extract the content of a DVD and transform it into an easy-to-download file, as long as we have a high-speed connection, of course. But the file in question is smaller than the original one, and almost as good quality. And our friend Jack Valenti, the big boss of the association representing the majors, is trembling and is multiplying his meetings with members of the American Congress, to beg them to strengthen the legal means that currently protect intellectual property. But, in light of the latest technological advances, it seems that this war, which has not yet begun, is already lost. And what is unfortunate in all this is that it is the authors, the main people concerned in all this, who are unfortunately very little present in this debate. We talk a lot about technologies, software, industry lobbying, but authors, almost nothing. Sad, I told you. Deep down, perhaps we are going to witness the establishment of a new paradigm in these industries, where authors and Internet consumers will speak to each other directly, without the intermediary of the majors. Look at what the writer Stephen King did recently. Deep down, the majors are perhaps panicking, at the idea of contemplating their imminent disappearance or at least, a redefinition of their role. Expect to hear about this new battle in the coming months. Waterloo, Waterloo, dreary plain Readers' meetings Phew, after this short digression, let's get back to the point, and talk about technology, since after all, this is a technology column. Last week was the little meeting with readers and my very competent namesake Dumais. A meeting under the sign of discussion and hops. Very pleasant and very critical remarks with, among others, a charming grandmother who aspires to become a Microsoft network administrator and a former NFB employee, Philippe Troilliet, an eminently likeable person. Among the exchanges, a reflection by Philippe with, in comparison, the computer industry and the automobile industry. According to our friend Philippe, and I share his point of view, today's computer industry compares favorably to the automobile industry at the beginning of the century. According to him, today's computing is comparable to a car that needs to be started with a crank, and to which you need to add a pint of oil every 100 km, while constantly carrying around a complete set of spare parts. Not stupid at all. And a good "reality check" for both columnists. Don't worry, for those who were on vacation, we will surely do this exercise again this fall. Speaking of readers Email and phone conversation with Paul-André Vaillancourt, a friendly Internet developer. "I bought myself a small PIII 500 laptop [Editor's note: you call that small?], from Compaq, and I must say that I am delighted with it [Like the bison perhaps?]. With its very readable 14.1-inch screen, a 6x DVD, and 192 megabytes of RAM, what luxury indeed. The only thing that leaves something to be desired is the disk space (six gigabytes), especially since the Compaq configuration alone takes up about 1.7 gigabytes of disk space; do your math to see what's left. Here's my question: being in the High (speed), that of Bell (about 700 Kb/sec), I often tell myself that if I bought myself a laptop, it's to give myself more mobility, which is not the case at present, because this wire connected to my network card, and that I have to drag behind me, like a prisoner drags his ball and chain, is starting to irritate me. seriously. I've been searching the internet for a solution to get rid of this damn wire once and for all, but nothing seems to be available to me. Since laptops are becoming more and more popular and this kind of question is likely to come up one day, could you enlighten me and or give me some good addresses where I can find an "Airport" style card, like on iBooks? I am sure that many readers would be interested in reading about this wireless topic." P.-A. Vaillancourt My dear Mr. Vaillancourt, believe me, Apple has not just started a wireless trend. The Church of the Holy Apple has given a clear signal that the wireless standard developed jointly by it and Lucent is here to stay, and that one day, all computers in the world will be freed from the oppressive yoke of wires. I therefore advise you to look at the Lucent company's cluttered website, a perfect example of a website where good information is buried in a pile of pages with poorly defined navigation, to find any trace of the Wave POINT-II database. But be aware that there are also other companies that develop wireless products for PCs and Macintoshes. For example, the Farallon Skyline PCMCIA card (www.farallon.com/products/wireless/skyline/) allows a PC or Macintosh to connect to an Apple Airport base. Yes, even with a PC only, you can buy an Apple Airport base, and then install the Skyline card so that the two talk to each other in complete harmony. Be zen, Mr. Vaillancourt, that is the happiness I wish you. And have a good return from vacation, dear readers. We will meet again next week.

## ###ARTICLE\_START### ID:560

By the time you read this, Napster's servers will have only a few hours of active life left. At midnight tonight, following an injunction obtained by the Recording Industry Association of America (RIAA), Internet users around the world will no longer be able to use Napster, the popular software for exchanging MP3 files. A victory for the music industry or a simple reprieve? The de facto standard on the Internet, MP3 is now considered the norm for all digital music files. Technological advances in recent years have made it easy for any computer owner to extract music files from an audio CD and then convert them to MP3 format. While at the beginning of this revolution, Internet users had to search and find sites that allowed them to download said files, with the launch of Napster, even the most inexperienced user can now, with disconcerting ease, find and download MP3 files of their favorite artists. Basically, Napster is a colossal club for exchanging pirated MP3 files. Turning off a tap So, with this closure, has the industry just solved its problems? Nothing less certain, on the contrary. It has only turned off a tap, while dozens of others are flowing freely. Several other software programs have just taken over from Napster, and these are pushing the distribution of MP3s on the Internet even further. While with Napster, you had to connect to Napster's servers to have access to the information, a new generation of software now allows the sharing of information directly from individuals to other individuals. No more intermediary servers. What's more, this new generation of software is available in open source code, which means that it is possible for other programmers to take "the original recipe" and prepare it differently and thus redistribute it endlessly. In short, the limits on Napster, which allowed the Recording Industry Association of America to sue it, have just fallen. Indeed, now that the source code of file-sharing software is in the public domain, who can the RIAA sue? The only way the major record industry lobby can stop file-sharing is to simply shut down the Internet, which, as you can imagine, is completely impossible. And the problems the record industry faces will be the problems the film and video industry will have to face. This second-generation software can now exchange not only MP3 files, but also digital files of all kinds: video files, software packages, images, etc. In theory, the war that the RIAA is currently waging, and the one that the film industry will wage, is practically lost. Internet users 1 - Industries and lobbies 0. What about copyright? In all this debate, we hear a lot from the majors' lobbies, but very little from the authors'. However, those who are the first concerned are precisely the authors. Last year, the Society of Composers, Authors and Music Publishers of Canada (SOCAN), through its president, Gilles Valiquette, had brought this whole issue to the attention of the Copyright Commission. The Commission, in a unanimous decision, had acquiesced to the authors' grievances. Without, however, providing any possible solutions. SOCAN had then suggested the implementation of a special "tax" that Internet users would have to pay, and which would be collected by service providers. A bit like restaurants that currently, when they broadcast music in the dining room, pay a license, a right to broadcast it, to SOCAN. But are authors really losing money? Not really, if we rely on industry figures that indicate that the last year was the most profitable for record sales. It would even seem that most people download MP3s, like downloading a demo version of a software, and then, if they liked the piece of music, rush to their favorite retailer to buy the audio CD version. However, as the media allowing the reproduction of MP3 files become more common and accessible to ordinary mortals - in the form of portable music players, car radio MP3 players, MP3 players connected to a stereo -, the demo versions will transform into the "final" version and at that point, the authors' rights will really be in danger. In any case, this debate between authors and users is not about to be over, it is only just beginning. The solution recommended by SOCAN seems, at first glance, to be the fairest for authors. Will it be adopted? Stay tuned dumais@Mlink.NET

## ###ARTICLE\_START### ID:561

Are you connected to high-speed Internet at home or at work and want to protect your network, small or large, against malicious intrusions? There are always individual solutions, but if you have a small computer to spare, nothing beats a solution consisting of installing a firewall on it. And the Penguin can come to your aid, even if everything else on the network runs on Windows. Let's be zen. In an ideal world, no one would need a firewall to protect themselves, Big Boss Lamarre of TVA, as he recently told a colleague of the great Press, would not suggest that we "click on Rita Lafontaine's dress in Le Retour to find out which store it came from and how much it costs" (is that the vision of interactive TV? I wonder how Ms. Lafontaine feels about being labeled the official model of the chic channel 10), the Internet would still be a libertarian zone where everyone would have the right to exist, Bill Gates would offer his Windows operating system in open source code, 32 megabytes of RAM would be entirely sufficient to run all the software and games of the moment, and Celine Dion, in short, you understand me. In the meantime, since perfection is still not of this world, let's see how the Penguin can help you. Free is my best price! Could the noosphere, this sphere of intelligence that encircles the Earth, as described by Teilhard de Chardin, finally be the Internet? One would be inclined to doubt it with the proliferation of smart people who take a malicious pleasure in trying to pierce the software barriers of your computer. To protect themselves effectively, an Internet user can obtain one of the many individual firewalls such as ZoneAlarms, from ZoneLabs (www.zonelabs.com), free, and terribly effective. But, when there is a network to protect, nothing beats a computer and a firewall that act as a filter between the Internet and you. Obviously, the solutions can vary, the prices dancing the samba between a meager little nothing and several hundred dollars. A Vancouver firm, Lineo, has launched a very simple solution for the user rich in ideas, but poor in means. Many of you own and have access to an old 486 type computer. No, not a Pentium, an old 486. Above all, do not use it as a door wedge in the workbench, take it out and make it shine a little because this old 486 is called to know a new life thanks to the "FirePlug Edge Project". "The FirePlug Edge Project" (www.edge.fireplug.net ) consists of using the resources of an embedded Linux system (embedded software), which barely fits on a simple floppy disk to make a firewall that is proof against most smart people. Here is my summer recipe for a good free or almost free firewall to enjoy fresh. - An old 486 DX2, with 12 (ideally 16) megabytes of RAM. - Above all, no hard disk, a simple 3 and a half inch floppy disk drive will do the trick. - Two small network cards - A very high-performance Internet connection (cable modem or high-speed telephone) - The 3 and a half inch floppy disk containing the FirePlug Edge software that you downloaded Take the 486, add a few network cards, sprinkle it with the necessary RAM and plug it in with a little "Hydro-Québec sling". A little ice and a high-speed connection in one network card, and the hub of your internal network plugged into the other. Start everything up well with the floppy disk in the drive, and use it immediately without waiting. And here is your protected network. In addition, this Linux configuration that fits on a single floppy disk also includes a DHCP server. A DHCP server? Let's say that it's a small application that allows, from a connection that gives you a single IP address, to be able to connect a whole series of other machines to the Internet. In short, don't worry, the software will help you configure your network quickly and efficiently. And for a small home network, with two or three computers, as we are increasingly beginning to see, this configuration is ideal and inexpensive my friend. And even if the roommate, when I first made him read this article doubted that everything was complete, I assure you, you don't need anything else. Everything fits on the floppy disk. Do you have money my friend? Then Netmax is for you If you need a more muscular configuration, with the possibility of configuring your server remotely with a simple browser, and not a text interface that can be off-putting for many users, know that there are Linux configurations at all prices. You can configure a Pentium or Pentium II server and 64 megabytes of RAM with a serious distribution, like that of Red Hat. On these distributions, you can find everything you need to not only install a system to protect your network, but also a battery of software to set up a Web server, email, FTP, discussion lists. For example, I recently did business with a local company, SavoirFaire Linux (www.savoirfairelinux.com ) to install a complete, fully GPL, i.e. free-source, configuration in the office. In less than a few hours, everything was configured and fully functional. And I could have also done business with other local Linux companies like INSU (www.insu.com ), 8D Linux (www.8d.com ) or SysPark (www.syspark.com ), and I would have been just as satisfied. In fact, I recommend them all to you, I know their leaders and their philosophy and they are all worth it. But there are companies, small or large, that remain skeptical about the OpenSource model. If a software doesn't cost at least $500, it's because the whole thing is suspect. Too bad, if you knew, but oh well. For these, as well as users who swear by software distributed in beautiful colored boxes, relax. I have a solution for you too. And not a bad one. An American company, NetMax (www.netmax.com ), has designed, from a stable Red Hat distribution, different solutions to meet the needs of Internet users with a home network, or those of small, medium and large companies. From a simple firewall to a complete Internet suite, NetMax offers its customers easy-to-install and high-performance products. For example, all you need is a firewall, then the NetMax Firewall suite is all you need and the price is to match: US$39. The complete Internet suite, the NetMax Professional Suite, is available at US$579. But it includes everything you need to connect to the Net, share files and printers on the local network, and also protect yourself from potential malicious intrusions. With the added bonus of technical support by phone or email. I have tried NetMax products and I can only profess faith in them. Obviously, there is the price, and also that these products are not under GPL license. But by Toutatis, by Apis and by Thouze, if a company or an individual wants to pay for a product offering a service, who am I to stop myself from talking about it because it is not OpenSource? Unfortunately, these products are not offered in French, we like to dream of the same products, but based on a Mandrake distribution, the kings of multilingual. But for those who want a stable solution, offering phone support, there is no doubt, Netmax offers one of the best quality-price ratios, all platforms and operating systems combined. Proof that the Penguin still has more than one trick up his sleeve. A promise and an invitation I am occasionally asked, with a wry smile, if we, journalists in tech news, receive free products with the obligation or almost to speak only positively about them. And what about those famous free trips (junkets) where journalists are invited, pampered, housed, fed, and all that? I cannot speak for my other colleagues, although in talking recently with my namesake Dumais, who works for another daily, I realize that he has pretty much the same philosophy as me. An honest man whom I admire, my colleague Dumais. Here is the promise I can make to you, readers of Le Devoir: I accept almost no free trips (two in one year), I refuse almost all of them. Do some other colleagues accumulate Air Miles? Good for them, but not for me, sorry. And if ever, because the trip is really worth it, if ever I accept a junket, I will tell you directly and without false shame. You will know what type of trip I accepted, and all the conditions attached to this trip. You will thus be able to judge the relevance of the words of your not very humble columnist. As for the products that we receive, know that I buy all my computers and almost all my peripherals. And that once a year, I give a large batch of software to schools. For example, my last little baby, my laptop, know that it is with $10,000 of my own pocket that I paid for it. And it will continue to be so as long as I write in this noble daily. Or elsewhere. Because the trust that you honor each week makes it so that I must be honest with you and my daily life. It is a promise. To conclude, as is often the case, you leave me your phone number in your little virtual missives, and you are nevertheless surprised when I call you, I propose another type of meeting. I do not write for myself, but for you. This is also the case with my namesake from the Journal de Montréal. Do you want to talk about these columns, our journalistic ethics, give us your critiques in person, or simply discuss your computer problems with us? We therefore propose to you, Nelson Dumais and I, Michel Dumais (no relation) a first: have a drink with the two columnists named Dumais. Thursday evening, July 20, during the holidays, we invite you to come relax and have a drink with us, from 5:30 to 7:30 p.m. Send me an email at the following address: dumais@mlink.net , and we will find a nice place to sip a fresh white wine. Nelson sends you his greetings. Ciao.

## ###ARTICLE\_START### ID:562

The creation of a "Community patent", proposed last week by European Commissioner Fritz Bolkenstein, has already been seen as a major change in the history of intellectual property protection on the Old Continent. The Commission's text proposes that the fifteen Member States harmonize their mechanisms for defending industrial inventions in order to lower their cost, in order to catch up with the United States and Japan, which are particularly efficient in this area. Despite its ambition, the European patent will not be enough, on its own, to align the competitiveness of Europeans with that of their main competitors. Aware of these limits, the Commission is already preparing to continue the offensive. Still unofficial, another text intended to legalize the filing of patents specifically relating to computer programs is waiting in the drawers of the Directorate-General for the Internal Market. The nerve center of the war of new technologies, it heralds a small revolution in the software industry in Europe. Today, the software protection regime is limited in Europe to "copyright" or, as in France, to author's rights. Only their form can be protected. Any legal defense of the underlying concept is in principle forbidden to them. However, these noble principles were established by the 19 signatory countries of the Munich Convention in 1973, which is to say the prehistory of computing. Since then, seas of kilobytes have flowed under the bridges of the information highways, and there is hardly any field of activity that computing does not irrigate. "Software", which was still at the end of the 1960s the gadget of "hardware" manufacturers, has become an industry in itself. Intellectual and industrial property today employs tens of thousands of legal advisers worldwide, 6,000 in Europe. And the European Patent Office (EPO), created by the Munich Convention, followed, with a decade's delay, the path traced by the American courts and marked out by the multinationals in the sector: the Americans IBM, Sun, Apple, Microsoft, of course, the Japanese Hitachi, but also the German Siemens, which holds the largest portfolio of patents in Europe. This movement was launched by software integrated into purely technical inventions. But it has grown to such an extent that the number of software programs thus protected in Europe is now estimated at 25,000. Given the sums invested in the development of programs, is this inflation of software patents not commendable? That the patent benefits the giants of the sector is beyond doubt, the lobbying they are doing in Brussels in favor of the draft directive is the best proof of this. But for small and medium-sized companies, the answer is less obvious. Because effective protection from a patent depends largely on the legal, and therefore financial, resources that can be used to carry out prior art searches (hasn't the invention already been filed in the past?), draft the patent and take legal action if it is infringed. The bill for legal advisors, who carry out the essential prior art searches, easily reaches 5,000 euros per day. However, "the art of legal advice, the way in which they formulate the patent, are decisive", believes Till Jaeger, a researcher at the Max Planck Institute in Munich and a specialist in intellectual and industrial property issues in Europe. Amazon, the American e-commerce giant, thus succeeded in patenting its "one click" in Europe in 1999... by presenting it as a technical invention! In addition, prior art searches can be extremely complex. Computer programs are made up of multiple sub-programs that turn them into algorithm puzzles. Patents are of particular concern to all distributors and developers of open source software, first and foremost Linux, since their development model is based on the exchange of so-called "non-proprietary" programs. Dirk Haago, director of Red Hat Deutschland, a distributor of office suites based on Linux software, believes that "it is almost impossible to control the use and protection" of algorithms. Beyond the costs involved, the question of the impact of intellectual property protection on the dynamism of innovation is raised. It remains open and it is not the large information technology groups that will answer it. "IBM is in favor of strong protection of its software inventions through patents because such protection is in its interest. I can't say anything more," acknowledges Marshall C. Phelps, vice-president of the world champion of the IT industry. The American example shows that patents have become a commercial weapon in the hands of large software publishers. At the Directorate-General for the Internal Market in Brussels, they are denying that they are playing their game. Bernard Müller, an administrator, believes that the draft directive he is drafting only aims to "bring the law into line with practice". And those whose practices diverge from those of multinationals will simply have to adapt in return to the new legislation thus created.

## ###ARTICLE\_START### ID:563

In the IT world, Stuttgart is best known as the headquarters of IBM and Hewlett-Packard. The fact that the leafy capital of Baden-Württemberg has been hosting the big event for open source software developers since this year is a sign of the times. As is the prodigious increase in the number of visitors, from around sixty at the first event organised by students from Kaiserslautern in 1997 to 17,000 this year at the Linux 2000 fair. Who are these computer scientists who are constantly criticising the performance of the software from the major publishers? Matthias Bauer is more of a mathematician than a computer scientist. Together with three colleagues, he was asked by the organisers of the fair to man the stand dedicated to cryptography, the technique used to encode data transmitted over networks. To reveal the risks of hacking, he prefers the effectiveness of a demonstration to lengthy explanations. "There are five networked printers at the fair, including two HPs," he announces, smiling, as he taps on his keyboard. And he concludes: "The exhibitors have not protected their machines." Dangerous hacker or clever developer? Probably both, like most computer scientists who claim to belong to the "open source" community. The common thread of this community, which breaks with the practices of proprietary software publishers, lies in close cooperation for the development and improvement of software whose source code (the actual text of the program) is open and accessible to all. "The worst that could have happened to us would have been to have to work for Microsoft," says Kalle Dalheimer, animator of the KDE project, which has developed a graphical application for Linux. "The fact that everything is free allows us to concentrate on programming and to learn from each other by exchanging our programs. » This cooperative production method, born in the 1970s, remained the work of academics and isolated programmers until programs were developed that could be used by ordinary mortals. In this evolution, the father of Linux, the Finn Linus Torvalds, played a major role by distributing a program that allowed the use of what had already been developed on simple PCs. The Internet, which allows user-programmers to quickly exchange codes, did the rest. And Linux became a phenomenon. It is estimated that it now equips 60% of Internet servers and 30% of PCs in the world. This expansion should continue because the community is becoming more professional with the arrival of publishers of software for the general public or for businesses. Last summer, the French company Mandrake held second place in Fnac sales for a few weeks with its "office" package, a direct competitor to that of Microsoft. This small company created two years ago by a young graduate employs around twenty developers whose work is then partly distributed to the community. "Our products are constantly being pumped," emphasizes Anne-Laure Cézar, marketing manager, "but that doesn't stop us from living. Above all, we sell user comfort for open software." The libertarian project of the seventies has well and truly become a business.

## ###ARTICLE\_START### ID:564

The socialist MP for Tarn, Thierry Carcenac, has been tasked by the government with a study on electronic administration. This mission is part of the government's Action Programme for the Information Society (PAGSI), and aims to study the means necessary to "facilitate the creation of information systems for administrations that are easy for users to access, sustainable, secure and compatible with each other". It will also have to examine the interest of "free software" (such as Linux or Apache) for administrations. This report must be submitted before the end of the year.

## ###ARTICLE\_START### ID:565

Santa Monica special correspondent America Online announced Friday that hackers had gained access to its subscribers' accounts. A major blow for the world's No. 1 Internet service provider, which has 23 million customers. It declined to specify the number of hacked accounts, and would not or could not indicate the date of the attack. An investigation is underway. The attackers sent AOL customer service managers an e-mail with an attachment that contained a "Trojan horse," a special type of virus (1). Opening the attachment automatically created a connection with the sender's computer, which could then access subscribers' accounts. The attacks had been revealed by two external AOL "monitoring" groups, Observers.net and Inside AOL. After Melissa and "I Love You", to name only the most spectacular, this new affair once again gives companies specializing in antivirus tracking something to chew on. A business that is booming: Symantec, one of the leaders, has seen its share price almost triple in one year. The company has agreed to open the doors of its "culture laboratory" for digital viruses. (1) A Trojan Horse is a program that installs itself on a computer without the user's knowledge, and which allows its sender to take remote control of the parasitized machine. Since the crazy night of May 4, spent dissecting the "I Love You" virus in a concert of telephone ringtones, Vincent Weafer has had little respite. With a cell phone and a beeper on his belt, the director of SARC (1), the antivirus research laboratory of the Symantec company in Santa Monica (Los Angeles metropolitan area), is permanently on the warpath: there is no shortage of work these days. Daily alerts. Even if the famous "Love Letter" ultimately caused more fear than harm (according to a Gallup poll conducted in early June, less than 7% of American companies were affected), virus alerts follow one another in tight ranks. "They occur at any time of the day or night," explains Weafer, with a hint of greed in his gaze, behind his large Bill Gates-style glasses. SARC claims to detect 10 to 15 new viruses each day, among the approximately 130 samples submitted to it daily (by e-mail or floppy disk) by companies or individuals. Computers analyze the viruses, while the forty or so engineers hand them over to the "zoo": "This is where the viruses play," Weafer explains. Using a magnetic pass, he enters a white room, filled with computers lined up on metal frames, like big caged animals. The room is air-conditioned, the fifty or so networked machines are not idle: twenty-four hours a day, they are infected and reinfected, all to the background of techno music, a favorite genre of the young engineers who scrutinize the reactions of the machines to digital parasites. 50,000 viruses. "Most cases are easy to solve and benign: we usually have a treatment ready, or we can develop one in a few hours," reports the head of the researchers, Carey Nachenberg, 28, sitting cross-legged at a desk. Since its creation five years ago, SARC has catalogued nearly 50,000 viruses. They are increasingly dangerous: in 1993, only 10% of known viruses were file or hard drive destroyers. Today, according to Symantec, more than a third fall into this dreaded category, and red alerts are multiplying. When such a case occurs, engineers are called to an emergency meeting in the "war room": a small room that serves as headquarters and a coordination center with other SARC labs in Sydney, Tokyo and Leiden (Netherlands). "I Love You," which sent e-mails automatically and attacked certain types of files, is "simple but cruel," says Nachenberg. "Melissa is 30 lines of Visual Basic code, which caused $80 million in damage." The main thing is to act quickly to curb the infection. Researchers analyze the virus's "fingerprint" (code, behavior, and mode of replication), then assess the extent of the damage it can cause. Eight computers are enough to simulate the reaction of all the computers connected in the world and to test the remedies. Less expeditious than the method of Sarcman, the comic book superhero in a blue cape, painted on a wall of the lab: Zap! Pow! He interrupts the criminal actions of a sneaky Virus Vixen in a few bubbles. "We work two days in a row in an office cluttered with pizza boxes, dreaming of taking a shower," says the director of the lab. Sometimes, viruses contain messages from their creators, typically young men, aged 14 to 24. In the Concept virus, the SARC "biologists" found this one: "That should be enough to make me heard." Attack zones. "Fourteen-year-olds have the same computers the CIA used a few years ago, except that new software makes them super easy to program," Weafer says. After 25 years, "it's rare that they stick with it." He has "met" only three female perpetrators. As with viral infections, there are endemic areas: Eastern Europe, supplanted in recent years by the Asia-Pacific region, and increasingly Brazil and Argentina, which are infecting systems in Japan. According to the ICSA organization, which evaluates data security software, 95% of PC users worldwide will encounter a virus at some point. The Microsoft monoculture, which makes most of the computer equipment vulnerable, is no longer the only threat: SARC has already seen half a dozen viruses intended for Linux systems (free software competing with Windows). "We also expect problems with Javascript (2)", says Nachenberg, who warns against high-speed connections which, like cable or ADSL, allow permanent access to the Internet: "What we fear most is a virus that would take information from your computer - passwords, credit card numbers - and send them elsewhere, says Nachenberg. People must be as vigilant as they are in the rest of their lives, starting with suspicious attachments in e-mails. Would you open the door to a guy wearing a ski mask over his face?" EMMANUELLE RICHARD (1) www.sarc.com (2) Language used on the Web. Such viruses could infect PCs during simple web surfing.

## ###ARTICLE\_START### ID:566

Since users are used to free Internet, where it is very rare to pay for content and software, are the music industry majors fooling themselves by imagining that Internet users can pay for music per piece? Most of the music industry majors like Sony, BMG, EMI and tutti quanti have announced their intention to make part, a very small part of their catalog available this year in digital form, all for a fee, as you can imagine. However, the sum of this content will pale in comparison to the thousands of titles currently available thanks to these MP3 supermarkets that are Napster and Gnutella. Obviously, almost all of the titles accessible with Napster are totally illegal. Not a single artist will get anything out of it. Since MP3 files, once produced, can be duplicated endlessly, without degrading the original quality, the industry therefore had to adopt a file format of quality equivalent to MP3, which would prevent their free reproduction. A secure file format. Enter the Secure Digital Music Initiative (SMDI), a new format created by a consortium of more than 120 companies and associations. SMDI files can be heard on a computer using software specially developed by the consortium or on a portable device, equivalent to the Diamond Rio MP3 player, with the main characteristic of being "friendly to copyright". According to the original plans of the Secure Music consortium, software and players of SMDI files should refuse to play any piece of music that has been copied. You buy a piece of music on the Internet, and you reproduce it more than once for a friend or a colleague, impossible to play the duplicate file. But is it impossible in France? Because according to a recent article in Inside magazine, the first versions of devices and software capable of reading the SMDI format will not refuse to play illegally copied SMDI files. In short, this secure file format supposedly friendly to creators and respect for their rights will offer as much protection to authors as the current MP3 format. In addition to costing an arm and a leg (about $2.50 per downloaded track). No copyright protection or respect? In short, as my old father used to say so well, in his very colorful language, "the majors are once again getting their tits in a twist." In theory, however, the SMDI format is an interesting initiative for authors and the entire music industry. It protects copyright in two ways. First, an SMDI file is an encrypted file, which cannot be read by a standard version of WinAmp, for example, or a portable device like the Diamond Rio. Only a SMDI version of WinAmp or any other software, as well as a portable device with a SMDI decryption chip, can read an encrypted music file. Second, each SMDI file will have an embedded digital watermark that cannot be altered, even with numerous manipulations and modifications of the file. In theory, we were saying, because in practice, as I pointed out above, the first available players and software will nevertheless allow the free execution of illegally reproduced files. Is the industry serious? Allow us to doubt it. And even if it were really serious as it seems to claim, it is almost impossible to stop the rise in popularity of the MP3 file format, the true ipso facto standard of the music industry. As one observer of the scene, the watchman Philippe Le Roux, so aptly put it: "If paid newspapers and magazines have been forced to make their texts free on the Internet so that they can be read, if software producers are forced to go OpenSource to survive, how can the music industry still believe in lawsuits and proprietary technologies to face this inevitable paradigm shift?" I would even dare to add, to complete Le Roux's remarks, a short sentence from Jean-Claude Guédon, author of La planète Cyber: "You can't put a digital bird in a cage." dumais@Mlink.NET

## ###ARTICLE\_START### ID:567

Developed collaboratively by volunteer programmers from around the world and distributed free of charge, free software symbolises a new way of thinking about computing. Like the most iconic of them, the Linux operating system, they are even starting to threaten commercial products, including Microsoft software. Can you design a PC without Windows? Without a shadow of a doubt, Linux fans answer in unison, praising the speed of this operating system, its stability... and its free nature. Because this software, presented as an alternative to Microsoft products, has been freely distributed on the Internet since its birth in 1991. It is regularly improved by independent programmers spread across the four corners of the world, and can be copied, distributed and even modified by any user. Originally designed by a Finnish student, Linus Torvalds, who gave it his name, Linux provides the same basic functions as Windows or MacOS to read files, control peripherals, display windows on the screen, etc. With additional reliability since it takes on the characteristics of the Unix operating system: it is multitasking, that is to say capable of executing several processes simultaneously, but also specially adapted to network applications such as the Internet and equipped with security functions. What is more, it can be used on all PCs, from 386 to Pentium (and equivalents), on Macintoshes, on professional workstations, and even on pocket PCs and MP3 players. Although versions of Linux intended for the general public are starting to circulate (in the form of CDs, in particular, to simplify installation), it will still take time for this system to become as simple as Windows. Because Linux users are still, most often, its developers. Who, because they are dealing with active users, must surpass themselves. Linux requires a good knowledge of computers in general. But the arrival of major publishers and the phenomenal quantity of free software for Linux should facilitate its breakthrough with a wider public. There are now office software, such as StarOffice, comparable to Word and Excel, or Internet programs, such as those from Nestcape. And even adaptations of Linux, such as that of Corel, planned for this summer, which will be able to run Windows applications. Because it claims more than 10 million users worldwide and equips a third of Internet servers, Linux has become the emblem of free software (not to be confused with free software). A phenomenon launched by a former programmer at the Massachusetts Institute of Technology (MIT), Richard Stallman, who created the FreeSoftwareFoundation in 1984 to develop and promote this new philosophy, which is inspired by the university tradition of disseminating research work as much as possible. All the programs that claim to be part of this school of thought are published on the Internet in the form of lists to be compiled and software to be downloaded that can be copied, distributed and even modified by anyone. This allows, in particular, to study the functioning of the software and to freely add functions to it, contrary to the rules that govern commercial software. Today, the majority of applications at the heart of the Internet are free software, from the TCP/IP transmission protocol to electronic mail software, including Apache servers and a quantity of tools for forums, mailing lists, interactive forms, etc.

## ###ARTICLE\_START### ID:568

I always take great pleasure in receiving your emails, I have never hidden it from you. I like this interaction with you, my dear readers of Le Devoir. But my greatest pleasure is when you include your telephone number in your electronic missives. I like to imagine your face when, when you least expect it, ding ding, "it's the columnist of Le Devoir who is talking to you". For example, last week's column on using Windows 2000 resulted in me receiving a larger amount of mail than I had expected. After all, Windows 2000 is not really sexy. And yet One constant: you are fed up with Windows 98/95 and its chronic instability. Even if you reformat your hard drive and install this operating system anew, no more than two months go by without the hassle of repeated crashes starting up again. Windows 98 is a giant with feet of clay. You can well imagine that seeing that a simple user, in this case my roommate, could abandon Win98 forever for Windows 2000 and thus solve all her "crash" problems on a very ordinary computer, interested more than one reader. Or one reader. Like Danielle Soulière. After a correspondence between her, my dear roommate, and your not very humble columnist, here she is ready to make the jump to Win2000. Despite its price which puts it out of reach of all budgets. Stability has a price, one must believe. And even if this summer, the new version of Windows 98, Windows ME (Millenium Edition), finally promises us, after all these years, to solve all these repeated crashes once and for all, don't believe it. The version of Windows ME that I use, a beta, let's be honest, offers some improvements over Windows 98, but between ME and 2000, there is a world of difference. And everything still crashes. Whereas with Windows 2000, I'm still waiting for the crash. Same thing with my roommate. One who was surprised this week was Mr. Marc-Antoine Charbonneau. "Dring, dring! He's the columnist for Le Devoir!" The lucky guy, his employer, a very large government corporation, gave him a magnificent Compaq laptop, Windows 98, and instability to spare. In addition to ordinary office tasks, Mr. Charbonneau runs colossal spreadsheets in Excel. And the system regularly crashes! Needless to say, this hard worker is an ideal candidate for Win2K. In fact, he promised to tell us more about his Windows 2000 installation after a week or two of use. So I'll allow myself to kindly relaunch him here. And Linux in all this? Surprise, in all the emails last week about Windows 2000, only one asked me about Linux. "I find it strange to read you getting excited about Windows 2000, when you are normally pro-Linux. So stop encouraging Bill Gates. Are you for or against Linux?" I am not for or against Linux, any more than I am for or against Windows 2000. Both systems have their advantages and their disadvantages. I will tell you, however, that I am in favor of free source software, which is quite another thing. Between an operating system and a movement with deeper implications, the choice is simple. Long live Open Source! Whether Uncle Bill decides to make the source code of Windows 98 or 2000 free, well, just like Richard Stallman, the pope of the movement, I will be the first to tip my hat to Uncle Bill. For the rest, whether it's MacOS, Win2000 or 98, BeOS, or GNU/Linux, know that they are all currently running on my computer, in native mode or in emulation mode, with the help of the VMWare software (www.vmware.com ). And there you have it for those who want to drag me into a religious war once again. Windows Update? Outdated! I really never liked the Windows Update function integrated into the various Microsoft operating systems. According to Microsoft, by regularly visiting the Windows Update section of its website, our system is supposed to always have the latest software patches to limit the risk of security holes as much as possible. I can't say why, but I have had the vague impression since the very beginning that this functionality is not really well implemented. But who was going to confirm what my instinct was telling me? The technology news site CNET (www.cent.com ) has recently confirmed my suspicions by offering online to Internet users a complete toolkit allowing them to check if not only the operating system is up to date, but also to validate if all the software packages installed on my computer have the latest updates. Thanks to CatchUp CNET (http://catchup.cnet.com ), an application unfortunately only available in English, it is now possible to go much further than the simplistic Windows Update. Once the application is launched, CatchUp scans your computer's hard drive to ensure that the latest software patches for ALL your applications are installed in addition to checking for all known security holes. For example, for over a week, the Windows Update site has been telling me that my basic operating system, Windows 2000, had received all the possible bugs. Yet when I had my system checked by CatchUp, they found over six possible security holes in my computer and immediately offered me a patch to fix those issues. As kids get older, toys get more expensive You know the old saying? In my case, it has never been truer since I saw Samsung's new flat-panel displays, a 15-inch and a 17-inch. Why a flat-panel display? It's a question of space, visual comfort, and display accuracy. Unfortunately, although the prices of LCD flat-panel displays have come down significantly, owning one is still a luxury. But just look at Samsung's new display. Featuring a very pure design, this flat screen that rests on a very compact base offers, for the 17-inch 170 MP model, a viewing angle of 80 degrees with a maximum resolution of 1280 x 1024. But where Samsung really hits the mark is by directly integrating a TV tuner directly into the screen. This means that it is possible to directly connect the cable, or a VCR, DVD player, or camcorder. If you are curious to know what it is all about, run your mouse over to the Samsung Canada website (www.samsungcanada.com/products/infosys/syncmntr/150\_170mp.htm).

## ###ARTICLE\_START### ID:569

For many, the phenomenon of free software seems to be the work of sweet dreamers. Although respected, the words of Jean-Claude Guédon, Richard Stallman and Éric Raymond do not seem to interest the bosses of large companies. Well, until very recently. Because now, we only have to see the craze for Linux of certain companies like Dell and especially IBM to realize that the movement is well underway. Bob Bishop, the boss of SGI (Silicon Graphics) is the latest to publicly affirm his interest in free software. In a conference held recently in San Francisco, Bishop stated that "Linux could well be the entrepreneurial model of the 21st century" and free software could well be for tomorrow. "Linux works like academia, it is developed by a group of people who work transparently on the Net, explains Bob Bishop. What motivates computer scientists, like scientists, is the pride of being the first to solve a problem. This race against time makes the product progress much faster than in the case of a proprietary system, like Windows." According to Bishop, if Microsoft is split into two or three companies, the rise of Linux could accelerate and thus transform the entire software world by imposing the concept of free software. www.letemps.ch/template/economie.asp?page=9&contenuPage=&article=43982&quickbar= Long live free content By regularly hammering you with the concept of free software, it was time for your columnist to find another nail to hit. What would you say to free and open source content? On the OpenContent website you will find the basic philosophy of this movement as well as a license facilitating the creation of free content on the Internet, while granting protection for the moral rights of said content. You produce content on the Net, you have a personal page whose information you want to share with the community, you should take the time to read the license and the objectives of the OpenContent movement. www.opencontent.org

## ###ARTICLE\_START### ID:570

To thumb their noses at start-uppers and promote self-production using new technologies, the Träce forum is planning two days of debates, stands and demos by DJs and VJs, a MAO (computer-assisted music) workshop, and concerts by self-produced groups: Nemla (world music), the Moujiks (Balkan music), Banda Zefir (Brazilian jazz) and Cheikh Sidi Bémol ("gourbi rock", they say). In the era of home studios and MP3, which allow for wide distribution at low cost, the debates will take stock of the evolution of musical venues, free software, and even musicians' rights and the status of DJs. May 26 and 27, Salle Daniel-Féry, 10-14, bd Mansard, Nanterre (92), RER Nanterre, day rate 10 F; concerts in the evening, 30 F; electro-session from midnight on Saturday, 50 F. www.reseau92.com

## ###ARTICLE\_START### ID:571

There seems to have been a consensus on both sides of the Atlantic to say stop to an Internet that is above the law. On Monday, the Paris High Court ordered Yahoo!, the Web giant, to take measures to "make it impossible" for French Internet users to access online auctions offering Nazi objects. A spectacular decision, which tends to do nothing less than impose borders on the Web (Libération yesterday). Yahoo has two months to present to the judge the details of the technical measures it intends to take to comply with this judgment, issued following an interim action by the Licra (League Against Racism and Anti-Semitism) and the Union of Jewish Students of France (UEJF). On the same day, on a very different case, the American FTC (Federal Trade Commission) banged its fist on the table. The FTC found that four-fifths of commercial sites do not respect the privacy of Internet users. As a result, the organization abruptly changed its philosophy. "Self-regulation alone has not adequately protected online consumers. Accordingly, legislation is needed," the FTC recommends in its report to Congress. Collective memory of the country. This backlash on the Internet comes just days after the closing of the G8 cybercrime summit in Paris, which could only note the difficulties of international collaboration in this area. In the meantime, it is therefore national laws that are opposed to the "excesses" of the Internet. The Paris court thus considers that Yahoo.com "offends the collective memory of the country" by allowing individuals to offer, on its online auction service, objects (more than a thousand) such as uniforms or Nazi flags. For interim relief judge Jean-Jacques Gomez, the fact that the site is hosted in the United States and that it hides behind the principles of free expression defended by the First Amendment of the American Constitution does not change anything in the case: "By allowing the site to be viewed in France, Yahoo is committing an error on French territory, even if it is not intentional." "The extraterritoriality that the Internet used to claim is over," rejoices Marc Levy, lawyer for the LICRA. "We cannot prevent French law from applying under the pretext that the network is a new medium." All the less, for Levy, that the Internet changes our perception of the world: "Young people who today have to write a thesis on the Holocaust will go fishing on the Web: they will find 50% revisionist or negationist sites there. Whereas until now our collective conscience was formed in a context where this literature was marginalized, blacklisted." Why attack Yahoo, when most of the major American portals and auction sites also offer Nazi objects or literature inciting racial hatred? Why not eBay, which, unlike Yahoo!, takes commissions on sales made through it, including those involving those nostalgic for the Third Reich? "We had to start with a large and well-known company to establish a principle. We are now going to contact the major sites and hosts to ask them to align themselves with the case law," says Mr. Levy. At Yahoo France, they are concerned about the "important precedent that this decision creates" (see next page). Mr. Christophe Pecnard, lawyer for Yahoo Inc., warned: "An identical position adopted by foreign judges would force French website operators to submit to the laws of more than 100 different countries." According to the same principle, an Islamic regime could, for example, require French hosts to block access to Salman Rushdie's The Satanic Verses if the request comes from their country. "Such an operation of justice at the international level represents a risk for the development of the Internet, in France as everywhere in the world," added Mr. Pecnard. Total freedom. Is the wind turning on the Web? Internet start-ups are landing abruptly in the real economy. The "globalization", via the Web, of total freedom of expression defended by the American First Amendment is being called into question. And, as noted in a study by the consulting firm IDC made public yesterday, "the world is rapidly moving away from an Internet centered on the United States." Americans will represent only a third of Internet users in 2003, compared to half in 1998. At the same time, Asia and Europe are gaining in power, with their own values and their own cultures. 84% of Japanese Internet users prefer to surf in their native language rather than in English. Last week, India adopted draconian cyber legislation: the publication of material deemed obscene will be punishable by sentences of up to five years in prison, ten in the event of a repeat offence. And police officers will even be able to search without a warrant. In short, Internet culture is changing rapidly. Vinton Cerf, one of the fathers of the network, called on Monday for laws to be put in place to combat piracy, viruses and the violation of privacy. Even a hero of the libertarian Internet like Linus Torvalds (designer of Linux and advocate of "free software") has just taken a stand against Napster, a software that facilitates music piracy. The company is recalling the good memories of a network that is less friendly than yesterday.

## ###ARTICLE\_START### ID:572

A first solution allows the company to do e-commerce in stand-alone mode without being tied in any way to a service provider or a stakeholder host. The company purchases the necessary software and hardware and starts business. Stand-alone mode according to SysparK SysparK is a small Montreal company that specializes in the design and implementation of such a site. For a sum ranging from $10 to $15,000, SysparK takes charge of making an SME operational in terms of e-commerce. "Our approach is two-tiered," explains Jean-Christophe Petit, its president. "We design and set up a transactional website for the company and we take care of the initial marketing phase. The design and implementation of the site is done in close collaboration with the company. It is the company, of course, that decides on the content of the transactional catalog that we offer them, not only in terms of articles but also in terms of prices. Once the infrastructure is well established, we take care of making the site known. People must know that there is a site offering a particular product or service and they must know how to get there." This initial marketing phase includes registering the company's site in all the search engines available on the web, but also including banners in all the major portals and in sites where there is a potential market for the company's product. One of the reasons why the cost of such an installation is comparatively affordable is that SysparK chose the Linux operating system, not only because of its reliability but also, as its account manager, Hicham Jellab, explains, "because it now provides access to flexible and affordable business solutions." Unlike solutions offered by proprietary software that force a client company to adapt to them, the open source software available for Linux allows the solutions to be adapted to the needs of the client company. SysparK thus offers its customers the possibility of doing both business-to-business commerce (B2B) and retail e-commerce (R2E). "The products we offer are, in addition, personalized, scalable and modular products that can easily adapt to innovations that may arise in the transactional field, adds Jean-Christophe Petit. But for us, our role ends when the company is operational and is satisfied with the performance of the system. Of course, we remain at the disposal of our customers whether it is maintenance, upgrades or any other aspect of their operation, whether software or hardware." SysparK's commitment to free software has led it to create a site offering hardware and professional support to any designer wanting to develop a free software project. "We already host half a dozen ongoing projects for free, which allows their designers to receive support and collaboration from other designers in Quebec. What we want to do with this site is to boost the Linux movement in the province in every sense of the word." The advantage is that once these projects are developed and finalized, they become available to all companies running Linux. The installation offered by SysparK to small and medium-sized companies costs, on average, two to five times less than an installation using Microsoft products. SurfnShop and application services Application service providers (ASPs) have been flourishing since last year when large companies paused for fear, it was said, of the famous Y2K bug but rather because of the increasingly high investments required for the implementation of integrated management software (ERP). Realizing the hesitations that such an implementation caused, application service providers took the initiative to offer companies the possibility of using integrated management software without having to invest in hardware or software: the services offered are paid on the basis of the number of users or the number of transactions. Today, this service is applied to e-commerce, with the great advantage of being technically free. SurfnShop is a Montreal company that specializes in this service. Philippe Lecoq, its sales manager, knows how to attract the attention of his potential customers: "Your free Surfnshop portal allows you to offer first-class e-commerce services to you, the customer, without having to invest in software, hardware or even infrastructure." SurfnShop generates revenue "simply by charging transaction fees on each sale, charging hosting fees if the customer does not use our portal and selling value-added services." What Surfnshop actually offers its customers is a virtual marketplace that includes all the tools needed to facilitate transactions between buyers and sellers. This is done very quickly. Any company can go to the Surfnshop website, choose a web page template and build that page in less than an hour (the average is 30 minutes). Simply answer the questions asked to set up a virtual store and display the products or services you want to sell. Once the virtual store is built, the store "manager" is given a key that allows him to update his store's inventory, expand his product range and access a series of marketing tools as well as statistics designed to help him better plan his promotional and sales campaigns. For small and medium-sized businesses, the SurfnShop portal is ultimately an outsourced service that is ideal if you want to deploy e-commerce services very quickly without having to worry about the tools in place. All SurfnShop portals are seamlessly connected to secure Internet payment servers. Finally, businesses have the choice between a private portal (at an additional cost) and a community portal (at no additional cost). Bell's subscription After an initial investment of $2,500, a young entrepreneur is offered the possibility of being displayed on an Internet Web page for $35 per month. "The client's corporate site is designed, developed and built jointly before being hosted by Bell," reveals Normand Toupin, Director of Communications. At this first stage, it is not possible for the subscriber to sell his products or services on the Internet. The only purpose of this first step is to make the client known and to ensure that he has a presence on the Internet. If the young entrepreneur decides to move on to the next stage, that of making his products or services known, Bell, for an additional sum of $40 per month, then offers him a non-transactional catalogue. This catalogue describes the products or services offered but does not allow them to be sold on the Internet. However, nothing prevents the client from putting them up for sale using traditional means. E-commerce, in fact, only becomes possible by accessing the next stage by paying another $40 per month. The client is then entitled to a transactional catalogue allowing the young entrepreneur to sell his products or services directly on the Internet: "This catalogue is accompanied by secure financial transaction software allowing e-commerce like any large company," informs Normand Toupin. Bell claims to have 128,000 self-employed workers registered in its sectors. Over the past year, we have seen the emergence of dozens, even hundreds of companies specializing in the creation of websites for commercial purposes in Quebec. It would be difficult, in fact, to find a small or medium-sized company today that is not thinking about e-commerce. The question for them is which route to choose because there are several. Here are three, with varying costs and speeds.

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"We are going to build the web of scientific computing. And tomorrow, the physicist researcher, but also the biologist or astronomer will be able to buy computing power like one buys electricity. Without wondering where the computers that do the work are." Guy Wormser, deputy director of IN2P3 (1), thus sums up the new challenge that physicists have set themselves, whose usual job is to explore the nucleus of atoms or the infinitely small. It was physicists, in fact, who invented the Web, at CERN (European Center for Particle Physics, near Geneva), for their communication needs. If they did not imagine what this invention would become, it is with full knowledge of the facts that they are now embarking on a new IT adventure called Data-Grid. Simplicity. Rather than entrusting their large calculations to a supercomputer, which they do not always have the means to buy, researchers intend to distribute them across hundreds of microcomputers linked in a network. A practice that is spreading in research but which requires the development of new communication techniques between computers, capable of supporting gigantic flow rates over long distances, and offering the same simplicity as the Web. Gigantic. In 2005, physicists are to receive the LHC, the most powerful particle accelerator ever built. A proton collider whose experiments will produce a truly insane flow of data: 40 billion bytes per second. Gigantic, this heap of calculations has one advantage: it can be divided into small pieces. And therefore entrusted to dozens, hundreds of average-power computers, brought together in a calculation "grid". The objective is short term. "We want to be there within four years," says Guy Wormser. A goal roughly in line with the Americans, who are pursuing a similar project. The Data-Grid project already benefits, in addition to the commitment of CERN, from the support of the European Union, Great Britain, Italy, the Netherlands and the European Space Agency. The latter sees it as a path for processing the exponentially growing data flows coming from Earth observation satellites. France is playing a leading role. Logically, it took the turn towards distributed computing early, with the IN2P3 computing center, installed on the Villeurbanne campus. "With 300 computers connected in a cluster and 200 gigaflops [billions of operations per second], we are among the most efficient," explains its director, Denis Linglin. Also, the CNRS has decided to invest at the highest level in the project, in particular to prepare, from its launch, its future use in bioinformatics. Security. Also, among the first partners, we note... EDF. "They quickly understood the interest of the system," explains Guy Wormser. A large company of this type has thousands of PCs. Often already connected by an intranet network. During long periods, at night for example, such a network offers colossal potential computing power... on condition that it can be used remotely, automatically, through a secure interface that represents "a third of the work", admits the physicist. Hence commercial prospects, like the Web, where computing power can be sold and bought. Prospects that will be all the faster since physicists have decided to build free basic software, in "open source, like Linux", insists Guy Wormser. (1) National Institute of Nuclear and Particle Physics of the CNRS.

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Access to and use of new technologies is a source of concern for many school stakeholders. The Internet is essential, so many choose to use it for educational purposes. But there are many constraints. Computerization costs are high, the knowledge required is constantly renewed, and the chaos of cyberspace seems insurmountable. And then, once these obstacles have been overcome, content must be developed - or found. The task is not easy, but many are working on it with conviction. And the results are convincing. Philippe-Labarre Elementary School, part of the CSDM, is a normal school. Normal because, like all schools in Quebec, it lacks the time and money to manage, renew, and use its computer equipment effectively. Budgets barely allow for the acquisition of equipment at the end of the course. Software renewal and management of the computer equipment mobilize significant resources. In addition, the time spent developing and using educational tools is also a problem. This school wants to innovate, and at a fifth of the current cost, thanks to GNU/Linux. Linux is a "free" operating system developed by a community of interests that wants to curb the monopoly of corporations that run on "obesity software." The free source code allows anyone to adapt the system and use software according to their own needs. No license to pay, and the server connection allows the use of old 486s running in terminal mode. "It cost us $70 per computer to update them," explains Claire Maltais, director of Philippe-Labarre. "Our needs are for the Internet, word processing and a few other applications like a spreadsheet, all available under Linux," she says. No need to buy the hundredth version of a software with 20 licenses. The system is powerful enough to do everything we want: graphics, audio, and we hope to soon be able to make video. "A network of 20 486 workstations served by a GNU/Linux PIII 350 box with 128 mg Ram costs less than $15,000 per year. The same network on a Mac or PC costs $75,000. Multiply this amount by 3,000 schools and I believe that socially, the choice is clear," emphasizes Joël Pomerleau of iNsu, the company that initiated the "Thin Client Server-iNdiskless" project for schools. For server management, the solution is advantageous. "While Windows has more than 35 million lines of code, Linux has only 7 million." Management is also simpler and 90% of problems can be solved remotely, more quickly. This increases the stability of the system. Stability is crucial, because preparing a course using computers is the source of many problems. "My teachers are preparing material for a course in the laboratory and the server crashes. They then need an alternative solution. Not to mention that they have to update themselves. They don't have time," according to Ms. Maltais. And the possibility of going to personalize the server, for more advanced high school students, is very educational in itself. "It's like finally going to open the hood of a car for a mechanics student," concludes Mr. Pomerleau. The president of iNsu, Khan Phimmasone, dangles the possibility of a public/private partnership with a social vocation: "We reject the idea of offering products - obesiciels - that are only effective in their excess. We focus on offering services with, as a key, autonomy for the schools." Philippe-Labarre's experience is being used in two other Montreal schools, Armand-Lavergne and Saint-Justin, as well as at the Dunton high school. In Quebec City, the Saint-Jean-Baptiste and Montessori schools are part of the club, and Anne-Hébert wants to join soon. The results are very promising so far, although the project is only experimental. In addition to the container, there is also the problem of content. Information research and validation, exchanges and communication, or word processing and mathematics are some of the subjects that can be used with the Internet. You still need to have the right resources to do so. Here are a few. The Showcase APOvitrine.ntic.org/vitrine The showcase of educational applications by computer. Several services and directories on the subject. Educational software suppliers, an index of educational resources, detailed files and a grant guide are some of the sections of this site. It offers training for teachers, a mailing list and several annotated resources. For theoretical and practical resources, this is an excellent reference. As a bonus, an efficient search function for more specific subjects. Cyberscolcyberscol.qc.ca/ Resource guide for Internet pedagogy. In addition to offering a few of its own scenarios, the site offers many resources. An index of directories specific to school exploration, educational resources by subject, development tools and a guide to creating educational scenarios integrating ICT. In addition, it contains all sources of resources relating to the school world in general. A vast network for all stakeholders in the school environment, which is enriched every day. Online educationwww.education.infinit.net The InfiniT portal offers here a selection of educational links for all levels of education. From preschool to university, enrichment exercises for students and sites allowing research. You will find lots of practical exercises for all subjects, educational material by the shovelful and scenarios for integrating the Internet into the classroom. However, there is no search function that would sort through all this abundance. ICT Teacher Trainingwww.callisto.si.usherb.ca/fbreton Dozens of teaching scenarios on all primary and secondary subjects integrating the Internet and computers. Each scenario is presented according to its objectives, the necessary means and the skills it will help develop. Commission scolaire des Grandes-Seigneurieswww.csdgs.qc.ca/Formation/TICenClasse/TICenClasse.htm "Introducing communication technologies in the classroom means involving students in the act of learning." A good thematic discussion of the issues specific to information and communication technologies with some examples of applications. IN BULKInfobourg of connected schoolswww.infobourg.qc.ca The education zoneradio-canada.ca/educationWhy Linux in school?www.mmedium.com/dossiers/linux-ecoles/index.html The teachers' roomsalledesprofs.comEducational applications of the computer in postsecondary educationwww.apop.qc.ca iNsuwww.insu.com jfparent@total.net

## ###ARTICLE\_START### ID:575

In 1998, a major study conducted by Montréal TechnoVision finally documented the shortage of IT experts in Quebec. It revealed, among other things, that programmer-analysts were among the most in-demand specialists. To take this study further, TechnoCompétences sought to determine what employers' real expectations were in terms of both technical and personal skills. A real challenge! "As a matter of priority, we limited our study to programmer-analysts," explains Sylvie Gagnon, CEO of the Comité sectoriel de main-d'oeuvre en technologies de l'information et des communications, TechnoCompétences. If we want to successfully make the connection between the needs of the industry and training institutions, we need to know what type of workforce employers are really looking for. However, when we asked them what skills they wanted, their response was invariably limited to two years of experience, without further details." To unravel the mystery of this famous two years of experience, TechnoCompétences brought together ten Quebec software producers around a table. "We asked them to specify their expectations in terms of skills. What types of candidates are they looking for or which ones do they have the most difficulty recruiting," explains Bertrand Dufresne, industrial psychologist and partner at Groupe Multi Réso, a research-consulting firm. To ensure that everyone speaks the same language, the researchers extracted their list of skills from the Dictionary of Software Skills produced by the Software Human Resources Council. Initial findings "Contrary to what we thought, IT companies favor technical skills over personal skills (communication skills, ability to work in a team, etc.)," Bertrand Dufresne is still surprised. And why? Because they prefer well-trained minds first, even if it means putting them under their thumb later. In other words, we will probably let go of geniuses that we judge will not be able to integrate into the company. However, we are ready to bet on less obvious personalities, telling ourselves that a mad scientist can help an IT company go a long way." However, with equal technical skills, it is personal skills that make the difference. Another surprise: although it is a basic skill, the ability to build application software code turned out to be the most sought-after. How can this be explained? According to employers, training centers often make the mistake of teaching all programming languages (Java, Perl, C++, etc.) in an intensive 10- to 12-month course. As a result, students do not delve into any particular language. In fact, recruiters seemed to appreciate the John Abott College formula, which forces students to delve into a single language throughout their training. This allows them to understand the entire software development life cycle. They are free to learn another language later. Experienced or green? Do employers still prefer experienced workers to juniors? "When it comes to a technical position, they look for independent candidates, while in management, they demand experts," notes Bertrand Dufresne. When asked, "Would you hire a university graduate for a position in IT management?", their refusal was categorical. "At this level, business experience is essential. In their eyes, an experienced engineer could be a better candidate to fill this type of position than an MBA graduate. That's why it is recommended that engineering students take management courses because they will surely take them during their career." The study also shows that some graduates are better placed than others. "Unanimously, employers praised the Université de Sherbrooke's formula, which allows its students to enter the job market while pursuing their training," explains Sylvie Gagnon. Their placement rate is exceptional. "Companies are also snapping up graduates from the University of Waterloo in Ontario. For those interested, it seems that Bill Gates personally selects the best of the best. This university maintains extremely close ties with industry. It therefore offers equipment and products that are always on the cutting edge. We can only hope that educational institutions will take advantage of these findings and adapt their training to meet the needs of the industry. For more information: TechnoCompétences: www.technocompetences.qc.ca Montréal TechnoVision: http://www.mtltv.org/fr-doc1.htm

## ###ARTICLE\_START### ID:576

Last Thursday night, as I was writing this, and while the U.S. Department of Justice and the 19 co-plaintiff states in the Microsoft lawsuit had not yet delivered their recommendations to Judge Jackson, many observers were betting that they would favor breaking up the company into several separate entities. But is this really the right solution for users and the American economy? By the time you read this, the judgment will be known. After the finding of fact rendered in November 1999 and the conclusion of law rendered in April 2000, the plaintiffs will probably have decided that Microsoft should be split into several companies, "baby-Microsofts." How this split will take place, whether there will be two or three companies, what products will be part of each of the new companies, I cannot say on this Thursday night. For my part, I do not believe that this breakup is the right solution. Let's not get this wrong, it is clear that Microsoft is a monopoly, and I agree with Judge Jackson's decision. After the facts revealed during this trial, no one can deny that Microsoft's business practices were totally against the interests of consumers, except of course Microsoft's lawyers and Bill Gates himself. However, it is very unfortunate that entrepreneurs like Jim Barksdale of Netscape, Scott McNeally of Sun and other business leaders did not have the courage, for fear of reprisals from the Redmond firm, to reveal everything during this trial. So, what solution should we adopt in this case? In the event that the Justice Department decides only in favor of the split, the problem will not really be solved because there will always be a company, whether it is led by Bill Gates or not, that will control the most used operating system on the planet. And that will decide which changes will be "good" for the user. And this could still lead to "slippages" like we have already experienced, such as the integration of a browser with the operating system. In my opinion, the best decision that could be made, in the interest of consumers, businesses and the entire global IT community, is the confiscation of the source code of the Windows 98, 2000 and derivative operating systems. Considering the increasingly important place that computing takes these days, operating systems are essential tools that must no longer be left in the hands of a single company. Nearly 90% of the computers on the planet run on one or the other of Microsoft's operating systems, that's huge. Let's just take the operating systems and their source code out of Microsoft's hands, AND ABOVE ALL, and most importantly, let them be placed in the public domain as free source code. A bit like Linux currently. The Linux development model is one that works, and that produces tangible results. So why not apply this model to this "common good" that are other operating systems like Windows, MacOS, Solaris, etc.? Why not form an international agency that would manage all the operating systems in the world? Utopian, the columnist? Maybe, but I believe that this solution, even if it will be difficult to implement, has at least the merit of solving the problem once and for all. And you, dear readers, what do you think? Digitization at your fingertips Among the purchases most frequently mentioned by individuals, the scanner or digitizer often comes back at the top of the list. However, I have often found that these devices are difficult to install and configure. Well, "were" I should rather say. Because with the adoption of the USB (universal serial bus) standard, gone are the complications of installing scanners of the past, when you had to install a SCSI card in the computer, and then make sure that the communications between the scanner and the computer were working. Talk to those who have had the difficult task of installing them in the past, often this task was arduous. Now, with USB, it is really a simple matter of "plug and play". And the SnapScan Touch from Agfa, a company recognized with Hewlett-Packard as a manufacturer of fine scanners, is without a doubt, the simplest product I have ever tried. If you know how to press a doorbell, you are able to scan images, because one finger, just one finger, is all you need to get results, which without being of professional quality, will be very satisfactory for the average person. To use the SnapScan Touch, it's very simple. You unpack the product, you connect it to the USB port of your computer (Mac or PC), you install the drivers and software, and in less than five minutes, zap!, you are ready to scan. On the scanner, you will see four buttons, one large and three small. To capture a photo for example, you just have to press the large button on the scanner, and immediately, the acquisition software starts on your computer and the image is immediately digitized. There you have it, it's as simple as that, the SnapScan is extraordinary in its ease of use. Impossible to make a mistake. The other buttons are used to fax, send an image by email, or to copy. For example, by pressing the fax button, the image is scanned, it is "sent" directly to the fax software, which then takes care of retransmitting it to the recipient of your choice. Don't look for something easier to use, it doesn't exist, except maybe in another galaxy. Agfa www.agfa.com

## ###ARTICLE\_START### ID:577

So, you've made up your mind, you want to make the jump to Linux. Without wanting to completely abandon the world of Uncle Bill, the penguin intrigues you enough to be ready to face the challenges of installation and configuration. Which distribution should you choose and which software should you use later? You especially want to test the Linux world, even if it means making the complete jump later, or go back to Windows. After all, it's your choice. So let Corel make you an offer that's hard to refuse. The Ottawa firm has just released the deluxe version of its Word Perfect Office 2000 office suite for Linux. In addition, to convince you to really live the Linux experience to the fullest, Corel includes with its office suite, its Corel Linux distribution, one of the easiest distributions to install currently available. For less than $200, you will get the distribution as well as the following applications: the Word Perfect text editor, the Quattro Pro spreadsheet, a presentation software, the Paradox database manager, as well as a host of other small utilities and fonts. Of course, some purists will criticize Corel for not being available in open source code. But it is also up to you to make the choice. You can get a distribution like Linux Mandrake and later, the Sun Star Office office suite for free, but for those who want to experience Linux with little or no problems, then the Word Perfect Office 2000 suite is the solution.

## ###ARTICLE\_START### ID:578

In the name of "state independence", three PS deputies, Christian Paul, Pierre Cohen and Jean-Yves Le Déaut, will submit a bill in the coming days aimed at combating the stranglehold of software companies, including Microsoft, on fundamental communication tools. Why? Let's imagine an administration where civil servants would be required to use paper and pens of the same brand. And where users would have to wear special glasses to decipher a letter from their tax agent. Well! This is a bit like the situation that prevails today in IT. Any document created on a computer depends intimately on the software used. For the average user, it is the obligation to juggle with different programs in order to decipher the documents received. For the State, this means a strong dependence on companies in the sector. The three MPs' project consists of forcing State services and local authorities to use software whose "source codes" (manufacturing secrets) are open and to favour public file formats. Security. The source code is to software what a musical score is to a sound recording: we can understand how it is built, dissect it, modify it. The vast majority of commercial software, such as Microsoft Windows, is closed. According to the MPs, access to the source code has many advantages, in particular ensuring the "perpetuity of public data". Indeed, how can information stored by the State be used when a publisher abandons production of the software that was used to create it? If the State has the source code, it can continue to read this data. Incidentally, as the authors of the proposal point out, "access to the source code is also required to guarantee the security of the State and to ensure that the software used by administrations does not contain security holes". In this way, they are responding to the growing distrust of Microsoft products, suspected of containing backdoors, vulnerabilities knowingly installed to pump confidential information directly at the source. The text also envisages a "right to compatibility": any company wishing to sell software using the data formats of another publisher would be entitled to do so, "including when a patent or trademark has been filed". A provision which, once again, targets Microsoft, whose programs such as the word processor Word or the spreadsheet Excel are largely dominant. Because any user is encouraged to obtain them in order to read documents created by others with the same software. Flexibility. "This law is in fact anti-Microsoft," admits Jean-Yves Le Déaut, president of the Parliamentary Office for the Evaluation of Scientific and Technological Choices. But if Microsoft opens its source codes, I have nothing against it." This is the main difference between this text and a bill from senators Laffitte, Cabanel (RDSE) and Trégouët (RPR), which was shelved at the beginning of the year. The latter wanted to impose on the administration the use of free software (whose source code is public) such as Linux, the competitor of Windows. With the less restrictive version from the PS deputies, Microsoft would "only" be required to entrust its manufacturing secrets to an independent authority, and not to make them available to everyone. For Olivier Ezratty, the marketing director of Microsoft France, this text takes into consideration "new issues and that is legitimate". But he assures that Microsoft's management "will not be ready to entrust its source codes". We are not there yet: "With this initiative, explains Le Déaut, we are mainly seeking to draw the attention of the public authorities to a real problem." Bill: www.osslaw.org

## ###ARTICLE\_START### ID:579

Although they do not have the latest computer "monsters", small laboratories nevertheless have great ambitions. To face them and meet the challenges, there is only one way: to call on the volunteers of Internet users whose computers are most of the time underused. Explanations. On Monday, April 17, four researchers from the National Institute for Research in Computer Science and Automation (Inria), succeeded in "breaking" one of the most secure computer encryption keys in the world. The Inria researchers had been working for four months on this project, called ECC2K-108, and launched by the Canadian company Certicom in 1997. The objective was to test the effectiveness of a system intended for encoding conversations between mobile phones, equipped with a 109-bit computer key and based on the elliptic curve method. The encryption method currently considered the most effective. Nearly 10,000 individual computers worked together for four months, including those of 1,300 Internet users from around forty countries, including France, to solve this problem while working in their "free time". That is to say, when they were not directly used by their owners. About two thirds of the calculations were carried out on Unix workstations and one third on Windows PCs. The challenge carried a reward of $10,000. It would have taken 500 years for a single computer, equipped with a processor clocked at 450 MHz, to achieve the same performance, which, according to Inria specialists: "demonstrates the high level of security that this method of cryptography allows". Every day, on the Inria website, Internet users could follow the progress of their work live and, whether they were Australian, American or French, a joyful emulation was established between the participants. This experiment illustrates, if it were still necessary, that pooling the power of individual computers connected by the Internet could constitute, in certain cases, an alternative to the development of very expensive supercomputers. Think small, rather than big, but in large numbers: this is the new philosophy of small laboratories that do not hesitate to nourish great ambitions but whose often limited financial means do not allow them to equip themselves with heavy equipment. Until then, to demonstrate their power, supercomputers competed in the search for still unknown prime numbers (a number divisible only by itself: 1, 7, 11...). A race, since the end of the 70s, dominated by Cray Research, a division of Silicon Graphics, with its supercomputers, such as the Cray One. But in 1996, then again in 1997, thanks to the cooperation of a few thousand associated Internet users, two new prime numbers were discovered. For the Internet user, participating in one of the many projects using this principle is simple. After registering with a requesting research organization, all you have to do is download a small software program that handles the import of data, their processing and the export of results. The computer, provided it is not turned off, does the rest. This method, which is increasingly being emulated, does not only allow you to break a code, factor an enormous integer, or invent a new prime number. Thus, since 1996, two million individual computers belonging to as many Internet users from 226 countries including Turkmenistan, where there are 31 enthusiasts, have been trying to flush out the presence of extraterrestrials in the cold intergalactic silence. This is, in fact, the objective of the most surprising program using the power of shared computing: "Search for Extra-Terrestrial Intelligence" (Seti), launched by the University of Berkeley in California. Institutions as serious as IBM, Intel, Fuji or Paramount films support this project. The harvest of radio waves, captured by a giant telescope based in Puerto Rico, is thus analyzed almost in real time by a myriad of living room PCs. If the motivations of the volunteers are very varied, everyone knows that they have a tiny but exhilarating chance of being the first individual on the planet to spot a logical radio sequence of intelligent origin. In the absence of a tangible result, the hunt for hypothetical ETs continues. Who said there was no poetry in calculation?

## ###ARTICLE\_START### ID:580

Even though I admit that I fully support the philosophy of free software, I have always been skeptical of those who declare at every turn that Linux can do almost anything. I had a shock this week when talking with Jean-Paul Smet, one of the people responsible for setting up AFUL. While we were talking, my friend Jean-Paul took out a magnificent Dell laptop from his bag. As the basic operating system, of course, Linux, a distribution from the German publisher SUSE. With a little smile, he launched Windows in a window using the VMWare software. Not so bad. "How about using Illustrator or Filemaker in a Mac window?" A simple click on a Mac icon, and there he was launching a Mac with system 8.1. A magnificent Mac emulator that, indeed, worked like clockwork. And the best part of all this? The emulator is not only available for free, but it was also free software, under the GPL license. Its name? Basilisk II, a pure marvel of compatibility. Visiting the developer's page, I realized that not only could this emulator run under Linux, but also under BeOS and Windows 95, 98 and NT. We visit the courtyard of miracles at the following address: http://www.uni-mainz.de/~bauec002/B2Main.html Canvas under Linux The drawing software Canvas, well known to Macintosh users, is now available for download. Identical to the Mac and Windows versions, Canvas for Linux supports True Type fonts. http://www.deneba.com/dazroot/softlibs/cv7\_linux/default.html

## ###ARTICLE\_START### ID:581

Where the columnist comes back down to Earth after spending an exciting week at the Linux Expo and discusses everything and nothing with his readers. A column for lazy people? Yes, and then? One word: Phew! What an exciting week your not-so-humble columnist has just had. A whole week of hanging out with "Linuxians" of all kinds, discussing free software and meeting guys like Bob Young, Dirk Hondel of SUSE or Jean-Paul Smet of the Association francophone des utilisateurs Linux (AFUL), once again, hats off to the organization. Let's say it again, the organizers of Comdex, who were there, would really do well to take notes on the organization and planning of an exciting trade show, both for visitors and exhibitors. But fear not, O readers who attend the Church of the Holy Apple or that of Uncle Bill, we will not be talking about free software this week (well, very little). Speaking of the Holy Apple, I had the chance to try out the new iMac DVD that a friend recently got. At the heart of this computer beats a very fast 400 MHz G3 chip, assisted by 64 megabytes of RAM. Superb machine, once again, Apple manages to amaze me. Especially with a price card that has nothing to do with the old prices charged by the company with the multi-colored apple. A little less than 2500 with a beautifully made color printer, the friend and his little family are happy. Even if, in my opinion, the ideal family computer in the PC world remains the little Compaq toaster that I told you about a few weeks ago, the fact remains that the ideal family computer, all categories and all platforms combined, is the iMac. A gem that I do not hesitate to recommend to you. Speaking of Macs, are you one of those who, like my colleague Garneau, the ladies' handsome Brummel and host of the Clair et Net radio show, still own an old Mac of modest power, compared to today's virtual cheetahs? The good old and faithful Word 5.1 continues to run without any problem, but as for browsers, well, it's hard to keep up with the latest incarnations of Netscape and MS Explorer. Even in its new 6.0 livery, these two browsers continue to require increasingly powerful chips and masses of RAM. How to keep up then? This is what happens to me while my old and faithful Powerbook, with its modest 24 megabytes of RAM. Even with RAM Doubler, starting Word 98 is quite a feat. And surfing the Internet with the latest version of Netscape and MS Explorer is completely impossible. So, what to do? Use old versions or find an alternative solution? Fortunately, there is another browser that is compatible with current HTML standards and requires very little RAM to run. This application, iCab (www.icab.de ) comes to us from the land of beer and sausage and I highly recommend it. Running on barely four megabytes of RAM, a Mac with a 68020 or 68030 chip (a version optimized for the Power PC chip is also available) and the antediluvian system 7.5, iCab is a browser that supports the very latest HTML 4.0 standards as well as Javascript and Java. Together with an email client like Eudora Light or the old Claris Emailer, that's all you need to continue surfing the Internet. Highly recommended. Since we are talking about software with modest demands, I realize that I have never mentioned one of my favorite office suites: AppleWorks. I admit that I still don't understand this tendency that most users have to get a Ferrari, like the MS Office suite, when the vast majority of their needs could be satisfied with AppleWorks. Including a text editor, a spreadsheet, a database, a presentation software, a vector drawing application and another for point-to-point drawing, AppleWorks is a software offered at a low price, and which can do almost everything. The ideal software for a family. And those who use the big suites on the market can rest assured: AppleWorks can read and write, thanks to filters, the vast majority of files generated by other applications. A great many educational institutions use AppleWorks and are completely satisfied with it. And as for Mac-Windows compatibility, know that the latest version, called 6.0, is now available for the Mac and very soon for Windows. As for the user interface, it is a real delight. I challenge anyone not to find their way around after a few minutes of learning. The only major omission in the word processor is a word counter. Damn! However, if you have a computer of modest power, I don't hesitate for 30 seconds to suggest that you adopt AppleWorks.

## ###ARTICLE\_START### ID:582

I regularly receive your mail, dear readers. And among your questions and comments, there is one subject that comes up regularly: is it possible to regulate the Internet? Some sites shock you, some comments puzzle you. Parents obviously want to "protect" their children from certain content that is, to say the least, questionable. Filter software, government regulation, self-regulation, the choices are multiple, the solutions numerous. I took advantage of a meeting with Jean-Claude Guédon, at the Linux Expo Americas trade show held this week in Montreal, to ask him this big question. A professor of comparative literature at the University of Montreal, Guédon is also the author of Planète Cyber , the second edition of which will be published shortly by Gallimard. He is a fervent supporter of the integration of free software in schools and co-chair of the organizing committee for the next INET 2000 conference of the Internet Society, which will be held this summer in Yokohama, Japan. According to Jean-Claude Guédon, we must first distinguish what can be regulated from what cannot be. The question of Internet "governance" essentially comes from the fact that it calls into question the traditional prerogatives of the major players, of governance in general, and of national governments in particular. Thus, how can we control the right of expression when the individual who transgresses a local law chooses to establish his site in another country where his mode of expression is considered legal. There are therefore areas of the Internet that many governments would like to regulate, but without success. Their attitude generally is to seek international alliances to collectively increase their regulatory power on the international level. According to Guédon, "we can therefore expect intense diplomatic negotiations around these questions in the years to come. And we can expect the maintenance of various refuges for activities generally condemned in a large number of countries". In France, the concept of co-regulation, probably originally conceived by Jean-Noël Tronc, was given pride of place by the Jospin government. This concept seems to have been largely inspired by the discussions surrounding the composition of the board of directors of ICANN (Internet Corporation for Assigned Names and Numbers). According to Guédon, this concept of co-regulation "actually aims to try to define in principle the sharing of responsibilities relating to the regulation of the Internet between private interests and public authorities". "Laudable in principle," he says, "this way of approaching the problem can, despite everything, only encounter immense practical difficulties in the absence of organized channels of communication between the public and private poles. One only has to think, precisely, of the questions of domain names to grasp the difficulty of the question." There remain the questions of standardization and there, the situation appears reasonably under control. Between the IETF (Internet Engineering Task Force) and the W3c (World Wide Web Consortium), most of the standards governing the Internet and the Web are taken care of. In other words, the Internet has seen the creation of ad hoc institutions that have largely replaced the international standardization bodies that helped regulate the telecommunications industry. This has also led to very tough conflicts between the Internet community, telephone companies and major governments, particularly European ones, in the 1980s and early 1990s. States have therefore had to review their strategies to reassert their influence in these new kind of international forums. For example, in the case of the W3c, France, through a major public research organization in computer science, INRIA (National Institute for Research in Automation and Computer Science), has secured a leading role, albeit indirect, in the international consortium. Indeed, Keio University in Japan, MIT in the USA and INRIA together ensure the foundation of the W3c. But this consortium retains huge areas of autonomy with respect to any government and "all that the French government has really obtained is a power of observation which, in any case, is largely granted to any organization choosing to become a member of the consortium". "In total, concludes Jean-Claude Guédon, the question posed does not find a simple answer, of the yes or no type; it rather refers to the fact that the Internet, by its particular history and its mode of organization which has gradually emerged and is still evolving, the Internet therefore also calls into question most of the habits that we maintain with regard to questions of regulation. Disturbing no doubt, this situation is perhaps not without advantages since it forces us to return to the very sources of what constitutes the principle of regulation, as well as the justifications which are attached to it." dumais@Mlink.NET

## ###ARTICLE\_START### ID:583

The curtain has just fallen on this first edition of the Linux Expo Americas 2000 trade show. This show was, according to many exhibitors and visitors, a great success, even if the organization did not quite reach the number of visits expected. Nearly 4,500 people passed through the doors of the Palais des congrès de Montréal this week for this first edition of Linux Expo. This is a little less than the figures expected (6,000) by the promoter, Stéphane Labrouche. However, in the opinion of many exhibitors, the very high quality of the visitors more than compensated for the shortfall. According to Bill Weinberg, of the Californian firm MontaVista Software, a publisher of Linux distributions for embedded systems (embedded software), "we were skeptical about our chances of meeting a sufficient number of potential customers. The last Linux World show in New York opened many doors for us, but never like in Montreal. We left with a list of nearly 150 potential customers interested in our products. The organizers of the show, the firm Skyevents, really succeeded in making this show, which is very technical after all, an exhibition on a human scale. We received impeccable treatment from the organizers and, contrary to what we thought, the language barrier was never a problem, quite the contrary." The same story from the visitors present on site. David Rowley, of Keynet, a consultant and networking expert, told us that this trade show is one of the best organized he has seen in Montreal in years. "I visit many trade shows every year, Comdex, MIM, etc. Linux Expo is, in my opinion, a model of organization. I was able to see very quickly that good business was being done there, as much between clients and exhibitors as between the exhibitors themselves. The organizers of Comdex in Montreal would do well to follow the path taken by the Linux Expo leaders if they want to reinvigorate their event." As was to be expected, the show was stormed by "Linuxians" of all kinds. However, the presence of many network administrators and IT department managers from large companies contrasted with the motley crowd that normally makes up other Linux exhibitions. Le Devoir was able to note the presence of many representatives from firms such as CGI, Desjardins and Hydro-Québec, all very interested in the latest products and services presented on the exhibition floor. An IT manager from a very large Quebec company told us, on condition of anonymity, that he "was there to study the possibility of implementing the GNU/Linux operating system and many open-source applications in his company. If the economies of scale are as significant as they say, while allowing us to maintain compatibility with current market standards, we would be foolish to pass up such an opportunity. The enthusiasm of Bob Young, from Red Hat, a businessman after all, for open-source software is very contagious. And seeing companies like IBM, Oracle, Dell and Compaq form solid partnership agreements with Red Hat for the integration and support of Linux for their products can weigh heavily in the balance. And many colleagues from other companies with whom I speak are beginning to think like me". On the other hand, the world of education has not been left behind. IT managers from many school boards were also on hand to visit the stands of firms offering services to the world of education and to attend the conference on education, hosted by Professor Jean-Claude Guédon. Joël Pommerleau, from the IT firm INSU, gave a speech that was much appreciated by the observers present on site as he presented his solution for the world of education. Speaking of the "OpenSource" philosophy but also of dollars, Mr. Pommerleau demonstrated that a solution based on 486 computers and old recycled Pentiums cost barely $300 per head, including software, installation and support. Which made a visitor I met at the exit of the show say "that with solutions like this and difficult budgetary conditions, the world of education would do well to seriously examine the migration of schools' computer equipment to Linux and free software." Who knows, perhaps the example will come from France as the French government prepares to debate a bill that will be presented in the coming weeks on open standards and access to source code aimed at strengthening consumer freedoms and security and improving competition in the information society. According to what Le Devoir obtained, the first three articles of the bill would read as follows: during computerized data exchanges, government departments, local authorities and public institutions would be required to use open communication standards, consisting of rules and procedures for the public exchange of digital information. Government departments and public institutions and local authorities would be required to use software whose source codes would be accessible to them. Any natural or legal person would have the right to develop, publish and use original software compatible with the communication standards of other software. A whole revolution which, according to our French interlocutor, would be strongly supported by the political apparatus.

## ###ARTICLE\_START### ID:584

"Multitudo" is the Latin word that Spinoza used to name the greatest number. The multitude, in the Spinozist perspective, holds power and thus limits the power of the State. The multitude is therefore to be understood as a true singular plural and not as the sum of individual citizens: the French Revolution had to go through this, Marx had not yet classified the masses, positivism removed all quality from anonymous (and dangerous) crowds and totalitarianism regimented its subjects in the murderous States of the 20th century. Multitudes (in the plural) is the title chosen for a new journal by a team very familiar with this long history (and who have things to say about what comes next). Directed by Yann Moulier Boutang, this quarterly cultural and political review carries as its epigraph, and as a program, a formula from Michel Foucault: "I try, outside of any totalization, both abstract and limiting, to open up problems as concrete and general as possible, problems that take politics from behind, cross societies diagonally and are, all at once, constituents of our history and constituted by it." Take politics from behind but also art, philosophy, the new economy or immaterial production... For example, a very rich file on biopolitics and biopower, to which are indexed the contributions of those who are willing to see a conceptual couple capable of grasping life, sometimes as a subject sometimes as an object of politics. Some to explore its heuristic scope (Maurizio Lazzarato, rereading Foucault and Tarde together, Bernard Aspe and Muriel Combe returning to Homo sacer, Agamben's last book), others to refute its validity (Jacques Rancière, who still relies on equality as the aim of politics or Bruno Latour who considers biopower as a horse that has already raced in the Belle Epoque under the colours of hygiene and eugenics). In a not too distant register, Eric Alliez gives an interview with Peter Sloterdijk, on his recent disputes with Jürgen Habermas. For his part, Alain Badiou clarifies the terms of the debate initiated by the publication of his Deleuze. Finally, Richard Stallman returns to the avatars of free software, and Gérard Fromanger, who designed the cover of this first issue, resolutely defends contemporary art.

## ###ARTICLE\_START### ID:585

Coming to Montreal for the Linux Expo Americas, Red Hat CEO Bob Young is one of the most ardent supporters of the philosophy of open-source software. Reacting to the fluctuations of the Nasdaq, the high-tech stock exchange, Young violently condemned the practices of "day traders" which he compares to "legalized gambling". Le Devoir managed to catch one of the most sought-after men at the Palais des congrès de Montréal. Red Hat is on a roll. Its founding president, Bob Young, was wearing a good-natured smile during his interview with Le Devoir. His conference, one of the most popular on this second day of Linux Expo, drew loud applause from the room filled to capacity. Unlike Corel CEO Michael Cowpland, who simply delivered a dull infomercial about his new products, Young galvanized conference attendees by talking about the "Open Source" philosophy and the many opportunities available to those willing to join the free-source software movement. "The Open Source philosophy is the only logical, I would even say ethical, way to compete in the software industry," Bob Young said at the outset. "The rules of the game must be the same for everyone, and only the open source software movement allows everyone to be on an equal footing. For more than 30 years that this industry has existed, the only way we know of doing business is based on this monolithic structure with proprietary code. It is only a few companies, like Microsoft and Quark Xpress in electronic publishing or Autodesk in computer-aided design [CAD], that control a market. It is impossible for a competitor to... compete. Consumers are also at the mercy of these same companies. There is no real advantage to developing in a closed standard, or to investing in software with proprietary code." According to Bob Young, the automobile industry is also one of the ideal models that the software industry could adopt. "Take a company like General Motors or Daimler-Chrysler. When they launch a new car, do they force consumers to buy only their spare parts? No, quite the opposite. These manufacturers publish their specifications and whoever wants to can manufacture these same parts and even compete with these automobile giants. The only rule to follow for everyone? Make sure to respect the specifications published by the manufacturers. This is a truly free and open market. The consumer can, if he wants, buy his parts from GM, for example, or from another merchant. This is an interesting model that the software industry must think about." Linux-Mandrake, one of the distributions we talked about last Monday in Le Devoir, is a product that was originally created from Red Hat sources and improvements. Isn't it frustrating for its founders to see the results of their research taken up by others? "We absolutely have to rethink this old way of doing business. The fact that improvements that we have managed to implement in the GNU/Linux operating system are taken up by others should help to reassure the consumer, and especially the company. And who knows if Mandrake, for example, could not develop a new market that we do not exploit? So much the better, we wish them. And if they decide to come and confront us on our ground, then the battle that will take place will be on equal terms. And those who will come out winners are the consumer and the company." Linux being a free-source operating system, we tried to establish with Bob Young a parallel between operating systems and the human genome project. Would it be desirable, for the sake of humanity, which increasingly depends on the proper functioning of computers, that operating systems, the software essential to the proper functioning of a computer, could be mandatorily published in open source code, just as pressure is mounting to put the entire genome in the public domain? "Indeed, the comparison is interesting. Yes, the most widely used operating systems should be published in Open Source. But that all operating systems, whatever they are, should be in the public domain... It will probably be decided by the market through its pressure on developers. But don't forget that consumers and businesses don't buy an operating system. They want applications. That's why Red Hat is now offering solutions geared towards the business market." As the stocks of new technology companies yo-yo, how does Bob Young react to his shares rising and falling with the market fluctuations? Is he worried about his shares collapsing? "The current market is currently subject to the wishes of "day traders", for whom the stock market is like a legalized gambling game. I like the example of Warren Buffett who says that a serious investment in a company with established assets could sleep for several years "under a mattress" and that by taking it out, the investor would be sure to always find his account there. Obviously, you can make a lot of money quickly, but also lose it just as quickly. As in a casino, the real winner of this stock market madness is the bank, companies like Ameritrade and E-Trade. Responsible companies will therefore have to, to get through it, reassure investors by proving to them that their assets are not just hot air, that the company in which they have invested is solid. We built Red Hat on two winning conditions: a free-source product using the best technology and a strong marketing argument, namely the free operating system. Our "enterprise" shift is not a coincidence. Companies want a product that will solve their problems and make their customers or users happy. If Microsoft wants to reinvent itself by redirecting the company towards services, good for it. Let it reinvent itself. But I don't think Microsoft is there yet. It's like a heroin addict, too addicted to make another sale of Windows 2000 or Back Office."

## ###ARTICLE\_START### ID:586

Jon A. Hall has nothing against Bill Gates, the multi-billionaire computer scientist whose Microsoft firm has just been found guilty of violating American antitrust law. Mr. Hall, a sort of antithesis of Mr. Gates with his long beard and his T-shirt, would nevertheless have many reasons to hold a grudge against the Microsoft boss. He heads Linux International, a group dedicated to the dissemination of the Linux computer operating system, a free system whose basic configuration (the source code) is entirely open to the public and which has quickly become the only serious competitor to the Windows system owned by the giant Microsoft. By imposing Windows through agreements with computer manufacturers, Mr. Gates has made himself the champion of secret source code, the exact opposite of Linux, which is the champion of open source and so-called free software that anyone can contribute to modify. "I'm not anti-Gates and I give Microsoft credit for creating a new industry," says Hall, who is participating in the first Linux expo in America in Montreal, at the Palais des congrès until today. "But," adds this Linux community guru, "Microsoft has still demonstrated an unacceptable lack of business ethics." The judgment against Microsoft, which accuses the company of having abused its dominant position in the computer market, is expected to result in sanctions that will be announced by June, but which will probably be appealed. Microsoft's troubles, whose stock price fell in early April in the wake of the judgment, do not make a difference to Hall, however. "Linux was growing strongly even before this judgment, and we owe this success mainly to our own merit," he says, recalling that the Linux system has grown from 125,000 users five years ago to some 20 million today. Market research last year showed that Linux's business operating system is installed on 25 percent of business computers, compared with 38 percent for Windows. Last year, Linux was the only system to gain market share, beating not only Windows but also Netware, Unix and others, according to International Data Corp. Microsoft's legal troubles will likely give Linux a boost, Hall believes, but it's Linux's superior stability and security that will drive its future market penetration, he insists. Already, a 1999 survey showed that 13 percent of businesses surveyed plan to switch to Linux when they upgrade their computer systems. But for now, Linux's future is not in the United States, adds the head of Linux International, headquartered in Amherst, New Hampshire. Linux will mainly develop, according to him, where the "culture" of the personal computer - the "desktop" - is still nascent, such as in Korea, China, Taiwan, Russia and Latin America. Currently, 95% of individual computers (those of individuals, as opposed to professionals) run on Windows, which has been installed in 300 million copies! However, for Jean-Claude Guédon, historian of science and professor at the University of Montreal, "Microsoft's domination is in its last years". Passionate about open source and free software, Mr. Guédon believes that the Linux system, which can also be obtained directly on the Internet, will have become "in five years" the main operating system on the market. For Microsoft, "the greatest danger comes from Linux", not from the American courts, opines Professor Guédon, author of the book La Planète Cyber. However, he expects the American justice system to impose severe sanctions on Microsoft, either a dismemberment of the company, or the obligation to publish its source codes or its submission to new federal regulations, or all three at once. For more information: www.linux-quebec.org

## ###ARTICLE\_START### ID:587

Yesterday was a relatively quiet first day at the Palais des Congrès de Montréal as professionals registered for the nine training sessions were able to get a glimpse of the possibilities offered by numerous open-source products and software while exhibitors prepared for the opening of the show to the general public today. At Eric Dumas' conference, specialists and newcomers to the GNU/Linux operating system were able to get a glimpse of the features that will be integrated into the 2.4 kernel, which should normally be "released" in the second half of 2000. Support for various USB (Universal Serial Bus) peripherals, "plug and play", PCMCIA cards as well as the reinforcement of high-performance multiprocessor server computers are among the features most awaited by the Linux community. The new graphical interfaces, largely responsible for the new popularity of Linux among the general public and in business, were also in the spotlight as the heads of the KDE and GNOME projects came to present the latest progress made by programmers in these respective communities. KDE version 2.0 is expected in the coming months. While the GNOME interface seems to be the most technologically advanced, KDE, a "copy" of Windows, is perceived by industry observers as the most mature interface and the most likely to rally companies that want to make the jump to Linux. A project in development that caught the attention of several specialists during this first day was Zope, a free source code application, originally developed by the company Digital Creations. Running on both Linux and Windows NT, Zope is an object-oriented server application whose primary mission is the development and creation of Internet and Intranet sites in a completely dynamic way. The implementation of security in a GNU/Linux environment was also highly followed by the participants of this day. The security of exchanges with Linux thanks to the SSL, ipSEC and SSH protocols and the implementation of a firewall and the various Internet services (DNS, messaging, HTTP) were among the various subjects addressed by the specialists present on site. First day of the exhibitors' lounge This second day of the Linux Expo Americas 2000 conference will undoubtedly be the busiest with the opening of the exhibitors' lounge to the general public and the highly anticipated presentation of the various "keynotes". Michael Copland of Corel, Bob Young, founder of Red Hat, Larry Augustin of VA Linux, Dirk Hohndel of the German company SUSE, Jacques Lemarois of Linux Mandrake and Eric S. Raymond, author of the manifesto The Cathedral and the Bazaar will be on site from 9am to 1pm for this series of conferences to "take stock of the major developments and directions in progress and to come in Linux and free software." Copland's conference should be the most anticipated with the official presentation of the Word Perfect Office Suite for Linux. Fully compatible with the files produced by the Windows suite and MS Office files, this suite including the Word Perfect software packages, the Quattro Pro spreadsheet, the Paradox database manager and the Presentation presentation application, is totally Internet-oriented. It will even be possible to export data not only to the HTML standard, as with MS Office, but also to more exotic formats such as WAP (Wireless Application Protocol), the Internet telephony standard. Bell Canada is currently offering access to WAP-format Internet sites using a new generation of cell phones. The exhibitors' show should also be very busy as ACCPAC, a division of Computer Associates, well known in Quebec for its Simple Accounting software, will reveal to the public its new accounting software solutions for Linux with its "ACCPAC Corporate Series" product. One of the titans of the software industry, Oracle, will announce version 2 of its Oracle 8 database management system adapted for the GNU/Linux operating system. According to Michael Rocha, senior vice-president, technology division at Oracle, this new version of Oracle for Linux will be available for free download and "will be the ideal solution in terms of free software for companies wishing to establish a prominent presence on the Web." This release is expected to include new benefits such as built-in analytics for data warehousing, JAVA 2.0 support, support for the Extended Markup Language (XML) standard and superior security. More than 100 other exhibitors from around the world will also be at the Palais des Congrès today and tomorrow to showcase their new products and services at this first Linux Expo Americas 2000. The show floor will be open from 9 a.m. to 6 p.m. today and from 9 a.m. to 5 p.m. Wednesday. For more information: (514) 871-5850.

## ###ARTICLE\_START### ID:588

Throughout the articles and reports, you will see terms and expressions like "OpenSource", "GNU" or "software". To help you understand what it's all about, here is a small glossary of the Linux world - Source code: for a computer scientist, it is the heart of the software, the key to the program. The source code is a series of instructions collected and assembled by the programmer of software X. Subsequently, this source code is compiled into an executable software to be "understood" by the computer. - Community: group of users and developers of a software or a system (Linux, Netscape/Mozilla, Java...). - Graphical environment or graphical interface: a set of software components allowing intuitive management, using the mouse, drop-down menus and windows, of file manipulation through different storage media such as a hard disk or a CD-ROM drive. Instead of using a command line, like in the good old days of DOS, a graphical environment allows, for example, to copy files using only the mouse. The use of a graphical interface was popularized by Apple and its Macintosh computer, and was later taken up by Windows. The main graphical environments under Linux are called KDE, GNOME - Geek: keyboard addict. Can be seen as a synonym for hacker with the difference that a geek is interested in everything technical, but is not necessarily a developer. - GNU: in 1984, Richard Stallman, a researcher at the MIT Artificial Intelligence Laboratory (MIT AI Lab), launched the GNU project. This project aimed to produce a free version of the Unix operating system. Stallman launched it because he essentially felt that the knowledge that constitutes an executable program (what the computer industry calls source code) should be free. If it were not, he reasoned, a small but powerful group of people would dominate computing. - GNU/Linux: Linux is the kernel, GNU/Linux is the whole system including several tools of the GNU project (compiler, standard library...). - GPL: General Public License. The most commonly used public license for free software is the GNU General Public License, more simply called GPL. The GPL gives users the right to make improvements to a program, to post them on the Internet and even to resell the fruit of these developments. On one condition: to also deliver the source code of the new software under the GPL license. The GPL was created by Richard Stallman. - Hacker: a hacker is a computer crack, a keyboard addict, a developer. Hundreds of hackers from all over the world have found a cause to defend by responding to the call launched by Linus Torvalds, and have thus contributed in an essential way to the development of Linux - Free Software: "Free as in free speech, not free beer", Richard Stallman likes to repeat to explain to Americans the concept of free software. It is not free software, but software whose source code is accessible to all. Its developers can be counted in the thousands in the world, and from this joyful mess have been born tools whose performance has nothing to envy to the products of the biggest companies. - LUG: Linux Users Group. Local group of users of Linux systems. The Linux-Québec Association is a local group of users of Linux systems - OpenSource: this term, which means free software, was invented by the Americans to avoid confusing the word free with gratuitous. The notion of freedom is therefore found in the word open - Driver: small program allowing the computer and the operating system to "dialogue" with a device such as a ZIP reader or a scanner. An X device can very well be connected to the computer without communication being possible between the two. Only the driver, normally developed by the company that produces the device, allows this "communication". - Operating system: there are several operating systems. Windows, MacOS, BeOS, Unix and Linux are all operating systems. The OS is the great conductor in a computer. It manages the inputs and outputs, therefore all the peripherals and all the components of a computer such as a screen, a keyboard, etc. Without it, no computer can function. - Unix: the ancestor of the GNU/Linux operating system, designed in the 60s by researchers at Bell Labs. The GNU/Linux operating system is a "clone" of Unix

## ###ARTICLE\_START### ID:589

A conversation with Jean-Claude Guédon, professor of comparative literature at the University of Montreal and author of the book La Planète Cyber, reissued this week, is never without interest. We took advantage of the Linux Expo Americas trade show, where Guédon is a member of the conference committee and host of the conference on Linux and education, to ask him a few questions. - Jean-Claude Guédon, over the years you have become one of the spokespeople for Linux and the open-source software movement. Why? As far as I remember, it all started with a feeling of frustration with the Wintel (Windows-Intel) alliance. Indeed, it led to the proliferation of obsessive software to relaunch the race for ultra-fast chips, a way like any other to force consumption through carefully planned obsolescence. By discovering Linux, I actually discovered and above all the phenomenon of open-source software, and I rediscovered all the power of distributed intelligence that has been hidden in the world of scientists since the end of the Renaissance. By this, I mean that the attitude of publishing the results of one's research to expose them to the criticism of one's peers, and this, in the exercise of one's functions as a researcher, seemed to me perfectly analogous to that of publishing code to allow others to correct it, criticize it or improve it. It seemed to me that I saw there a form of social rationality, a sort of common sense that quickly seduced me: each person, in this system, distinguishes himself from the others (so no collectivism), but, in doing so, contributes nevertheless to the evolution of ideas, elements of code, etc. Linux has therefore become, over time, a sort of emblematic incarnation of this phenomenon that I like to call distributed intelligence (by more or less accentuated distinction with the notions of collective intelligence [Pierre Lévy] or connective intelligence [Derrick de Kerckhove]). I therefore see it as much as an interesting technical solution as a real societal project. - In the October 1998 issue of Québec Science magazine, you called on the Minister of Education of the time, Ms. Marois, to make Linux "become" the operating system used in Quebec schools. However, isn't the current standard in the job market Microsoft Windows or, to a lesser extent, MacOS? How do you justify this choice? First element of response, training in schools does not precisely match "market standards". Education, at least we hope, seeks to overlook the current market to train students who are likely to adapt to market developments, and this is all the more important since a large part of the marketing effort consists precisely in constantly producing change, something new, whether justified or not. Training students in a particular version of MS-Word on a particular version of Windows is not like giving the student a fishing rod, but a fish, and a fish that rots quite quickly... I therefore also questioned computer training that aimed at too narrowly defined know-how, for example mastery of a particular version of a particular software on a particular type of hardware. This over-specialization does not lend itself well to the necessary developments, especially in a world of technical flux as intense as ours. I also called for more generic training, closer to what I like to call training in new writing. A student, by the end of primary school, should know how to create a page for the Web, just as he currently knows how to create a clean document from a blank page. His education should focus on this style of digital writing. For example, a primary school child who learns to distinguish between nouns and adjectives or adverbs by underlining each type of word in a different color, could very well do this same exercise using the tags specific to HTML or XML that control the colors of the characters, so that, when looking at his text with a browser, he would discover the words already colored and could thus compare his work with the model given by the teacher. Then moving on to a course in digital writing or new writing, he would say to himself: but I already know a little about that; I already worked like that in my French class. Second element of response: the costs of computerizing schools. Also because of Wintel-type developments, schools find themselves with considerable fleets of unusable devices (not to mention the heterogeneity caused by the division of the market between Macs and DOS or Windows machines). An adaptation, often inexpensive, of existing devices allows many of these old devices to be used by making them play the role of terminal (terminal X to use the appropriate jargon). A few new, slightly beefed-up devices, treated as servers, therefore allow these old devices to be given a new lease of life and, as a result, allow us to equip our schools at the lowest cost. Quebec is currently finishing a five-year, $300 million school computerization project. However, by taking Wintel or Mac devices with their current software, we have ensured that these devices will no longer be very useful in three years. This means that, at present, part of the 300 million dollars is being used to replace equipment purchased in the first year of the program and, in three or four years, everything will have to be done again... Such a strategy, which also neglects teacher training and focuses on hardware, seemed and still seems irrational to me. It seemed to me that it would have been better to put money into updating old equipment using Linux, and then to put the package into the most advanced possible training of the teaching staff. In this way, the money would have been used to improve human skills, and therefore teaching. This money would have remained on site rather than going to feed a few large companies in the USA or Japan and its effects would have been much more lasting. The government preferred to behave like a common consumer, passive and not very enlightened, who throws money around in an attempt to solve complex problems. All this makes it possible to stage great press conferences and gives visibility to ministers, but it is a very high and poor price to pay for the desire to be re-elected. Third element of the answer: the transparency of open-source software makes it possible to build a computer science apprenticeship that can range from simple mastery of a few generic types of software to advanced training in operating systems, networks and programming. Giving our young people this opportunity to delve as far as they want into computer tools would, in my opinion, generate such an explosion in general computer skills that companies would not fail to notice. At the same time, they would find an additional weighty argument for setting up in Quebec rather than elsewhere, with the resulting favorable consequences for employment. Unfortunately, so far, inertia and even resistance have been more numerous than initiatives. However, let us salute the Garneau School, which is fully committed to this path. This example, which is beginning to be followed by other institutions, should play an important driving role in the adoption of open source software, and Linux in particular, in schools. - What are the advantages of Linux? I have already spoken a little about it, but let's say that the way of developing any open source software, such as Linux, guarantees a better quality than what is obtained in traditional industry teams. "With enough eyeballs, all bugs are shallow" says Torvalds, and he is right. Here is an example actually told in the New York Times, a few months ago. The latest stable Linux kernel, 2.2, had just been released when a German user encountered a bug. All software has bugs, but the rest of the story is edifying. Immediately, our German sends a file to a friend in Hungary, who participates in the development of this kernel, to analyze the nature of this bug. Within 24 hours, a correction (a "patch" in computer science jargon) was sent to the creator (and coordinator) of Linux, Linus Torvalds, in California. Within two or three days, several other possible solutions to the same bug also reached him. Incidentally, it was already possible to get rid of the bug in question on the first day. Torvalds and a group of collaborators chose one of these "patches" and published it as an official correction. Immediately, and this is where things get really interesting, a discussion arose, in fact contesting the decision of Torvalds and his closest collaborators. And Torvalds gave in to the arguments and chose another "patch". The whole thing was finally and well fixed in less than four days, and after a democratic debate. Compare this to the behavior of programmers in hierarchical teams in traditional industry... Security is also better. In traditional software, security is largely based on the secrecy of the code since it is not published. However, this secrecy does not prevent security holes from being discovered by chance or after somewhat systematic explorations. The problem is that the person attacked can sometimes know that they have been attacked, but they cannot easily know how. They cannot therefore inform other users and only the company can attempt to make the necessary correction. On the other hand, with open-source software, we quickly discover where the hole is located and the correction is not only made quickly by someone, but it is immediately posted so that everyone can incorporate it into their system. As a result, a system like Linux is often corrected in less than 24 hours, while a system like Windows NT can wait weeks before being plugged. I could go on listing the various advantages of open-source software, but I will simply add one, which is interesting for Quebec: the linguistic adaptation of the software to the local environment, here French. Thanks to access to the source code, computer scientists have no difficulty in substituting the language of their choice for that of the programmer. This is how Breton and Catalan versions exist for various free software (for example the KDE GUI). Can we imagine Microsoft producing a Breton version of its software? - Do you really believe in the future of free software? Not only do I believe in it, but I think that it will become the dominant trend very soon. Indeed, free software tends to gradually invade all sectors of software. We are now seeing the emergence of office suites and all sorts of specialized software in free form. Why buy Photoshop licenses when Gimp essentially gives you the same features for free and with granite stability? In fact, free software, like bandwidth, is gradually revealing its true nature, which is much closer to a public infrastructure than to a traditional commodity. The method of financing these infrastructures does not go through classic market structures; On the other hand, these same new types of infrastructure entities promise the creation of new types of markets, especially service markets. For example, roads are not developed according to market rules, but are financed as public investments. Once deployed, however, they open up the possibility of new types of markets, for example for various categories of vehicles, recreational or not. The same will probably happen with software and bandwidth.

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How many industry observers would have bet on another model, open-source software? How many would have bet on the dizzying rise that the Linux operating system is currently experiencing? Nearly ten years have passed since a young Scandinavian computer scientist, Linus Thorvalds, made available to Internet users the core of what is today the heart of the GNU/Linux operating system. At present, the cooperative development of Linux is considered THE great success by the apostles of the open-source software movement. A success that Microsoft and Apple must observe with circumspection. Indeed, a study by IDC published in August 1999 revealed that more and more companies were planning to adopt Linux as an operating system and that already 13% of the companies surveyed had moved from an X operating system to Linux, while internationally, Linux represented more than 17% of the operating system market share in 1998. It is estimated that there are between 15 and 20 million users of the Linux operating system worldwide, which makes it equal to MacOS. Although Linux is now endorsed in many companies, and various consulting firms such as CGI or LGS currently have their own Linux development "cell", the time when the Linux community will see its operating system become as popular as MacOS or Windows as the preferred OS on the computer of Mr. and Mrs. Average is still far away. However, the efforts of many distribution editors such as Corel, Mandrake and Caldera to make Linux as easy to install as Windows or MacOS are there and the results are convincing. A few more months of effort, and we will undoubtedly see distributions even better adapted for the general public. However, large and medium-sized companies, which are looking for a stable, secure and efficient OS, have every interest today in considering Linux as a valid alternative solution. The support given to Linux by market leaders such as IBM, Oracle and HP can only reassure them. As the Linux Expo Americas exhibition gets underway for three days at the Palais des Congrès de Montréal, Le Devoir is pleased to offer you this special edition of the Planet page dedicated to Linux, in addition to daily coverage of this first edition of Linux Expo Americas. Linux Expo Americas is over 100 international exhibitors, conferences given by prestigious speakers, and a complete program of talks explaining the mysteries of this operating system. Over the course of these three days, we will make sure to offer you the best of these conferences, in addition to describing the very latest developments from the Linux community editors. Join us every morning in these pages or on our website for the very latest news from Linux Expo Americas.

## ###ARTICLE\_START### ID:591

Microsoft's abuse of its dominant position, anticipated by financial investors since Monday, has shaken the columns of Wall Street and caused a severe stock market correction. Bill Gates' firm, which has lost nearly 18% in three days, has dragged down many new information technology companies in the United States and Europe in its wake. On the Old Continent, everyone was affected indiscriminately yesterday, at the opening of trading on the New York Stock Exchange, where the Nasdaq composite index, reflecting the stock market performance of 4,733 company values present in all technology sectors, was down 3.3%. However, at the close, the Nasdaq had recovered to finish slightly up 0.5%. This recovery follows the Nasdaq's 1.77% decline last Tuesday, after a 13.6% drop during the session and a 7.64% decline on Monday. On November 5, however, after the publication of Judge Jackson's first very severe conclusions on Bill Gates' firm, Wall Street had instead supported its competitors. Sun Microsystems and Red Hat (an American distributor of the free software Linux, a competitor to Microsoft's Windows NT program), were propelled upwards. This time, Microsoft's guilt, which should have been welcomed as good news, had no favorable effect on many American computer stocks. Between March 1 and April 4, Sun Microsystems lost 8.1% of its value. And, between March 31 and April 4, at the close, the stock of Scott Mc Nealy's firm, which specializes in computers with programs and computers designed by Sun Microsystems, lost 4.2%. The share price of Red Hat, one of Microsoft's youngest competitors, at $41.43 at the New York close the day before yesterday, lost a little more than $1 compared to its level on March 31. Oracle, whose chairman Larry Ellison is a sworn enemy of Bill Gates, has also suffered a drop in its share price. The day before yesterday, its stock was at nearly $76, compared to $78.10 last Friday and $71.50 on March 1. The stock market performance of the world champion in database software is comparable to that of most other American software companies: its compatriot Sybase, at $20 on Tuesday, had lost $0.31 compared to its closing level on March 31 and was down nearly $5 compared to the beginning of the previous month. Among American manufacturers of telecommunications equipment, Cisco, the world champion in Internet products and the second largest market capitalization in the world, was listed at $73.12 the day before yesterday, down from its level last Friday. But it was still up 6.2% the day before yesterday compared to its price on March 1. These recent movements, even impressive, must be put into perspective in view of the 84.3% increase in the Nasdaq composite index between January 1 and December 31, 1999. However, investors are concerned about the recent decline in the American index of technology stocks, which fell below its level at the beginning of the year (4,069 points). The American correction has logically affected Europe. But it has struck indiscriminately. The American wave has spread to the European indices and to the main "heavyweights" of these indices. Index fund managers are quickly adjusting their stock portfolios. Deutsche Telekom, which represents 13.3% of the DAX index of the Frankfurt Stock Exchange, fell yesterday to 74 euros, compared to 83 euros on March 31. The same trend for France Telecom, whose share price fell yesterday to 153.4 euros, compared to 180 euros last Friday. The French group accounts for 14.66% of the CAC 40 index. "In France, we are in a period of disarray. Investors are massively withdrawing from all new technology stocks. Cap Gemini has just announced major acquisitions and partnerships. There is no reason for it to suffer as it is currently doing. Investors do not differentiate between STMicroelectronics and a dot.com company," observes Odin Alexandre, senior director at CEA-Regent. The Microsoft effect has amplified the trend of recent weeks. Over the period from March 1 to April 4, STMicrolectronics fell by 17.9% while the American Intel, also present in semiconductors, rose by 14.6%. And the most spectacular falls are part of a Prévert-style list. There is the Spanish company Terra Networks, a subsidiary of Telefonica for Internet access, several English companies, the manufacturer of handheld computers Psion (46%), the telecommunications operator Colt (36%), the access provider Thus present in Great Britain and the Netherlands (42%). And also Intershop, a German star of e-commerce listed on the Neuer Market, whose chairman is the former boss of Compaq, American producer of personal computers Eckhard Pfeiffer (33%). Because the companies specialized in Internet, which were driven by extravagant valuations, have been hit hard. In particular the shares of access providers. Some of them literally melted last month. They are among the biggest falls in the values making up the Stoxx index. Between March 1 and April 4, while the index barely moved (0.9%), the Italian Tiscali fell by around 40%, the English Freeserve by more than 43% and the Spanish Terra Networks, a subsidiary of Telefonica by 49%. Yesterday, the correction continued. In Amsterdam, World Online continued its descent into hell, losing another 6% to 23.35 euros at the close. The value has lost more than 45% since its introduction on March 17 at 43 euros, the victim of a scandal fund surrounding its president Nina Brink. In London, Freeserve lost more than 9% yesterday to 391 pence. The value had reached a high at the beginning of March, at 987.5 pence. It has therefore plummeted by 60% in one month. In Paris, Liberty Surf ended the session down 10% to 45 euros. The stock is still up 9.7% compared to its IPO price of 41 euros in mid-March. "The introduction of free and unlimited Internet in England has cast a chill over all stocks in the sector," says one analyst. However, not all investors have changed their minds overnight. In Italy, for example, the IPO of I.net, the Internet subsidiary of British Telecom, on Tuesday was a success. The stock jumped 163% on its first day of IPO. Yesterday, it limited its losses to 4.26%, closing the session at 447.6 euros. And the contagion effect has also affected the biotechnology sector. Some companies are returning to their level of last November. For example, the gene therapy company Transgene saw its value halve from 110 euros to 55 euros, as did British Biotech from 49 euros to 27 euros. The European leader in genomics, Genset, saw its share price divided by 3 from 250 euros to less than 80 euros. And yet, just like during the explosion of these values at the end of 1999, no rational element has come to justify these falls. "We mix everything and anything," emphasizes Oscar Mendoza-Vega, specialist at Ernst and Young. "The results of biotechnology companies are part of the long term." "Everything had risen too quickly and the bubble burst," explains Philippe Cotet, of Crédit Lyonnais Securities. "Some values have reached levels that are inconsistent with the reality of their project," he adds, "and it is normal that there are adjustments." The Microsoft effect perhaps simply indicates the end of the naive discovery of the "new economy" by Europeans and the arrival of a certain stock market realism.

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Bill Gates, 44, is not yet as plump as Steve Ballmer, the man who took over the reins of the company at the beginning of the year. But undeniably, judging by the most recent photos of the star, Gates has put on a lot of weight. Plus, he dresses a little better. In short, he is getting older. Gone is the image of the eternal student, little computer genius, lanky prophet of the digital future. What is left? A guy with billions of dollars, whose effigy is carried around at anti-WTO demonstrations, like in Seattle last winter. A bloated doll that is burned like that of a fallen king. A man whose biography is now reread the opposite way. Did we know, for example, that Bill Gates was born with a hell of a silver spoon in his mouth? His grandfather, a banker in Seattle, had left a million-dollar fund so that he could be properly provided for his education. Which was done. "Don Corleone". For the promoters of "free software" and open source (Linux and company), Gates is a monster who has managed to racketeer the planet by making bad software. The rising generation of start-ups caricatures him as "Don Corleone", according to Marc Andreesen (founder of Netscape). All this is very unfair in the end: promoted to the great enemy of competition by the American State, shouldn't Gates find some friends among the protesters of all stripes? "Chief architect". On January 13, Bill Gates therefore gave up his title of boss (chief executive officer) to "dedicate himself to technology". More prudent in these times. He will now be content, he promises, with the role of "chief architect" of the in-house software. In the weekly Business Week, he recently confided: "I'm going to become an invisible person." A figure of speech of course: Gates continues to scour conferences, preaching the good word of computing (in essence: the best is ahead of us, and Microsoft will be everywhere). Just yesterday, he gave an interview to the Wall Street Journal. Every few months, the visionary adapts the contours of his great vision. Yesterday, a PC on every desk. Today, total computing unifying all devices connected to the Internet, from large computers to programmable coffee makers. In the meantime, Gates will have tested quite a few concepts, with some quite astonishing developments on "electronic government." The future of democracy, he argued in substance, is networks of PCs interconnected on a global scale. All under Windows (the flagship software of the Redmond company) preferably. Efficiency. No matter the paradigm, the important thing is to show that Microsoft can give full coherence to the digital profusion. And in this, Bill Gates is remarkably effective. He could stop there, enjoy his fortune and consider himself satisfied. In fact, he is: "When I look back on the 25 years I've spent at the helm of Microsoft, and I see how much fun we've had, how lucky I've been, and what an impact this company has had on this country, then I'm happy," he told Business Week. But Mr. Microsoft still isn't talking about stopping.

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1975: Bill Gates and Paul Allen write Basic for the Altair While still students at Harvard, Bill Gates and Paul Allen design a version of the Basic programming language adapted to the MITS Altair. At 17, Bill Gates had already founded Traf-O-Data with Paul Allen, a company that sold a system based on an Intel 8008 processor to measure road traffic. June 1975: Microsoft founded Bill Gates (19) and Paul Allen leave Harvard to found Microsoft in a hotel room in Albuquerque, New Mexico. The company's goal is to "write good programs." The company quickly moves to Seattle, Bill Gates' hometown, and then to Redmond, located nearby. April 1976: Apple founded Steve Jobs (21), a former Atari employee, and Steve Wozniak (26), a former Hewlett-Packard employee, founded Apple in Jobs' parents' garage in Cupertino, California. In 1984, Steve Jobs launched the Macintosh, the first intuitive computer, i.e. using a mouse and a graphical interface, which would become the unfortunate challenger to Windows PCs. November 1980: the agreement with IBM In July 1980, IBM, then dominant in large computer systems, was looking for a basic computer software operating system to launch its first machine on the very young microcomputer market. It first contacted the company Digital Research, whose CP/M program was the most widely used at the time. But since the CEO was absent on the day the IBM team visited, Big Blue turned to Microsoft. In an emergency, he found QDOS, for "Quick and Dirty Operating System", designed in two months by Tim Patterson of Seattle Computer Products and renamed 86-DOS. Microsoft bought the rights for $50,000 and signed a contract with IBM to integrate it into its microcomputer. The IBM 5150 Personal Computer (our photo) was released in April 1981, with a reworked version of the system, PC-DOS, which would become MS-DOS after numerous checks. The computer "brought nothing original compared to the machines already on the market except the weight of IBM", recounts José Rossi's History of Computing (http://histoire.info.online.fr). Thanks to this alliance with the computer giant, Microsoft would carve out the lion's share of PC software. February 1982: Creation of Compaq Rod Canyon creates Compaq Computers in Houston (Texas). In the 90s, it becomes the world leader in microcomputers ahead of IBM before being dethroned last year by Dell, the champion of direct sales on the Internet, also founded in Texas, in Austin, by Michael Dell in 1984. The PC industry (personal computers compatible with those of IBM) becomes an industrial sector in its own right. November 1983: launch of the word processor Word Not content with breaking into operating systems, Microsoft diversifies into word processing software by launching the first version of Word. This will conquer 23 million users by relying on the Microsoft operating system, but also thanks to its compatibility with that of its competitor, Apple. Microsoft is preparing to become a software giant. April 1984: Presentation of the graphical interface for PC In April 1984, Microsoft presented an innovation that would revolutionize microcomputing by democratizing it: a graphical interface system, Interface Manager, which would become Windows ("windows") the following year. But this product was much less flexible than Apple's Macintosh, which included a system of icons that could be moved with a mouse. It would be necessary to wait for the Windows 3.x series in 1990 and especially Windows 95 in 1995 for Microsoft to catch up on its technical delay. March 1986: Microsoft goes public Far from the current habits of start-ups, Microsoft waited eleven years to go public. At the time, its MS-DOS software already equipped 4 million PCs. Before the introduction to the Nasdaq, its capitalization was set at 110 million dollars, it is worth more than 400 billion today. The stock, whose initial price was set at $21, was listed at 106 last Friday. Microsoft would even become the world's largest stock market capitalization, before being dethroned by Cisco last month. 1990: first antitrust investigation In a strong position with the most popular PC software, Windows, Microsoft was accused of making manufacturers sign abusive clauses. In 1990, a first antitrust investigation was launched against Microsoft by the Federal Trade Commission (FTC), the American Competition Council. 1993: the Windows-Intel duo becomes dominant With the launch in March 1993 of its new processor, the Pentium, Intel, founded by Gordon Moore, Robert Noyce and Andrew Grove in 1969, would become the other dominant player in microcomputing. Allied with Microsoft, whose Windows software only works with its processor, the two giants formed an essential duo, Wintel (Windows + Intel), today threatened with breaking up. 1993: Microsoft vs. the Department of Justice After three years of investigations, the FTC hands over to the Department of Justice, which will reach an amicable settlement. At the end of the settlement, Microsoft agrees not to force manufacturers to install Windows on all their machines. 1995: Windows 95 definitively asserts itself against Apple By launching Windows 95 in August 1995, Microsoft takes control of 90 million PCs worldwide. It hands down beats its rival Apple, which was the first to popularize the idea of an easy-to-use computer with a graphical interface: the latter's global market share melts to 5%, compared to 50% in 1980. August: Internet Explorer attacks Navigator After the success of Nestcape's Navigator launched in 1994, Microsoft counterattacks by launching its own web browser, Internet Explorer. This product will take time to take off, but, in 1999, 65% of Internet users use Microsoft's product, compared to 32% for Nestcape, bought in 1998 by AOL. The only problem: Internet Explorer, which is free and inseparably linked to Windows, will arouse the wrath of the antitrust authorities. October 1997: new complaint against Microsoft A new complaint against Microsoft accuses it of having violated the 1994 agreement. This time, it is accused of having inseparably integrated its Internet Explorer browser into its Windows operating system and of having forced manufacturers to deliver their PCs with this product, thus excluding its competitor Nestcape from the market. After an initial unfavorable court decision against Microsoft, which the company appeals, the American government and 20 federal states file an antitrust complaint against Microsoft. Despite these legal troubles, he launched Windows 98 a month later, which sold over 25 million copies. In October 1998, the antitrust trial against Microsoft began. Its main competitors, Nestcape, Sun and Oracle, appeared in court to testify against it. In November 1999, Judge Penfield Jackson, who was in charge of the case, concluded that Microsoft had abused its monopoly. Meanwhile, the European Commission in charge of competition was also investigating the software giant's practices. February 1998: Bill Gates received in France as Head of State During his visit to the IT Comdex trade show in Paris in February 1998, Bill Gates shared the podium with Prime Minister Lionel Jospin. The same day, he gave a press conference with the Minister of Finance and Economy at the time, Dominique Strauss-Kahn, who announced cooperation between the French government and the software giant. This grand visit caused a stir in the press, especially since Microsoft CEO Bill Gates had already been received by President Jacques Chirac in the past. January 14, 2000: Bill Gates steps down as Microsoft chairman After twenty-five years at the helm of the company, Bill Gates is replaced by Steve Ballmer, a former Procter & Gamble employee who has been with the company since 1980. The latter will now negotiate with the Department of Justice in the context of the antitrust trial. The former CEO becomes chairman of the company, in charge of developing new software. February 17: Launch of Windows 2000 While negotiations with the antitrust continue, Microsoft launches a new operating system for professionals, Windows 2000, the successor to the NT family. It intends to better compete with Unix systems and especially with the free software, Linux. However, the launch of this product, which has been heavily criticized, causes the company's stock price to fall by 5.72%. April 1: Mediation with the Justice Department fails Judge Jackson had appointed a mediator in December in order to reach an amicable agreement. After months of negotiations, Microsoft's concessions appear insufficient to Judge Jackson. He announces that he will render his decision without an amicable agreement.

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Since last week, version 5.0 of BeOS, the most multimedia of operating systems, has been available for free on the Internet. Although easy to install and use, its Achilles heel remains a cruel lack of applications. I am surprised to see how many users are curious to try alternatives to the market heavyweights that are Microsoft Windows and Apple MacOS. "We are not satisfied with the stability of the current operating systems. Are other OSes interesting alternatives?" they write to me regularly. Of course, Linux periodically comes up as a valid solution. Really? Let's face it, while the efforts made by the community to simplify the installation and use of this operating system are commendable, the fact remains that Linux is not yet quite ready and mature to be considered as a mainstream operating system. But as an operating system that can replace the mammoths that are Windows 2000 and Solaris in companies as servers, Linux yes, is quite ready. A few more months of work and a very simple Linux will surely be available. You only have to see the efforts made by the editors of the different distributions like Caldera, Mandrake or Corel to see that the general public Linux is not far from the tablets of your favorite store. In the meantime, the very charismatic Jean-Louis Gassé, former vice-president of Apple, columnist at Libération and founder of the firm Be, persists and signs with a new version of his BeOS operating system. Available in two versions, a pro and a personal one, BeOS is the most multimedia operating system currently available due to its ease of handling and reading different audio and video formats, and this, under Intel or PowerPC platform. Based on a Unix kernel, one of the strengths of BeOS is its great ease of running many applications that are nevertheless very demanding in terms of hardware resources. While simultaneously processing an audio file and a video file in two separate applications would bring a Windows system to its knees, this is not the case for a computer running BeOS. Everything works without any problem. This new version of BeOS is even easier to install than previous versions. Unlike Linux, where you have to create a partition for the operating system, starting BeOS is disconcertingly simple. Linux editor friends should also take BeOS as a model. All you have to do is download the file onto your computer, launch the installation directly from Windows, and 30 minutes later, BeOS is working at full speed, without changing anything. Absolutely trippy, as a well-known communicator would say. Unfortunately, as much as installing BeOS is within everyone's reach, the lack of applications is cruelly lacking. Office applications? Nada, nothing, the desert. And everything is in keeping with that. Too bad, because BeOS is one of the few truly modern operating systems, most other OSes being based on code that is several years old, if not decades old. Wanting to bank on the popularity of Linux, the BeOS editors decided to adopt the same tactics as the apostles of free source code. The operating system is available for free, and even some parts of the OS are open source. But will this strategy be enough to revive BeOS? Will Jean-Louis Gassé's crazy bet pay off in the long term? In any case, the first day saw more than 50,000 Internet users download BeOS, thus overloading Be's servers. But it will only be in a few months that we will see if Gassé's strategy has worked. BeOS: www.be.com Disease, Ergonomics and Computers Do you suffer from carpal tunnel disease, resulting from too much use of the keyboard? Has your vision been impaired by a bad screen? In short, do you suffer from one of these new ailments caused by excessive computer use or poor posture? Write to me, I would like to discuss it with you. dumais@mlink.net

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Resolutely Internet, the new general public distribution of Caldera is distinguished by a simplified installation, in addition to taking a network tangent. Named Desktop 2.4, this new distribution differentiates itself from the others by offering an integrated set of Internet and office applications. The latest version of the Netscape browser, Adobe Acrobat 4.0, the Flash! extension module, Real Media 5.0, klicq (an ICQ clone) are among the Internet applications that are installed and configured by default by Caldera in addition to Star Office, the office suite from Sun. This new distribution includes even more drivers to accept the different peripherals on the market. Network administrators will be happy to learn that Caldera offers them a distribution adapted to their needs, the Open Linux "eServer 2.3", the ideal tool for deploying an Internet server in e-commerce. Optimized for Pentium Pro processors or better, this distribution forever consecrates the use of the browser to manage and administer the different components of this distribution. Caldera: www.caldera.com The Linux distribution seems to be establishing itself According to the PCData firm, the CorelLinux distribution went from 2.3% of the market share last November to 19.6% in February 2000, while RedHat's share jumped to 40%, a difference of nearly 20%, whereas in November 1999, RedHat claimed 58% of the Linux distribution market in its favor. Based on the Debian distro, CorelLinux quickly distinguished itself by its great ease of installation and use. Corel: www.corel.com Linux Expo Americas: Le Devoir will be there Next week, the Linux Expo Americas exhibition will arrive at the Palais des Congrès in Montreal. Resolutely international with the presentation of "keynotes" by prestigious speakers such as Michael Cowpland, Éric Raymond, Richard Stallman and Bob Young. In order to keep you informed about this new trend, Le Devoir will present reports and interviews with various players in the Linux scene Linux Expo: www.linuxexpocanada.com StarOffice 5.2 Keep a close eye on the Sun site this week or next week. The beta version of StarOffice 5.2 should be available there. The big improvement in this version should be the enhancement of import and export filters, making it even more "compatible" with market heavyweights like MS Office or Word Perfect Office. Offered free of charge on the Sun site, StarOffice is an office suite offering a word processor, a spreadsheet, a presentation software in addition to many other small applications. Sun: www.sun.com Opera for Linux While waiting for the upcoming arrival of Netscape 6.0, there is finally an alternative to the very "buggy" Netscape 4.xx for Linux. The alpha version of Opera, a lightweight browser, is available for download on the site of this Swedish publisher. Known for its strict adherence to HTML standards, Opera for Linux aims to be extremely fast when browsing the Web. Opera for Linux: www.opera.com

## ###ARTICLE\_START### ID:596

While the hypothesis of a compromise between Microsoft and the American Department of Justice is now ruled out, Microsoft's future appears bleak. However, the sanctions should not be pronounced for several months, the time for the judge to conduct new hearings. Three major scenarios are currently being considered. - Microsoft becomes an investment fund like the Japanese Softbank or the American CMGIS. Bill Gates' firm can find a new future without relying on its Windows software. In the 1990s, the group invested in companies with diverse activities (cable television, specialized software, websites), in order to consolidate its ties with customers or technology suppliers. It would simply be enough to change this industrial logic into a financial strategy. This new business, called Eco Net (network of economic interests), is very fashionable in Silicon Valley today. It consists of bringing into play synergies between companies in which this company holds minority or majority stakes. - Microsoft makes its industrial secret publicly available. Regularly accused of relying on partly secret and mutually incompatible communication standards to strengthen its position, Microsoft could be forced to open the source code of "Windows". In short, it would provide the "industrial secret" or source code of its flagship product, thus allowing a publisher or a third-party company to ensure compatibility with its own software. These third parties could even be authorized to resell Windows, which has become free software, i.e. modifiable and copyable by anyone. Although contrary to the company's culture, this hypothesis would be viable. The software business model is increasingly linked to the services related to these products, and less and less to the sale of user licenses. - Microsoft is dismantled. An extreme situation that experts do not really believe in. The judge would then order a breakup of the global software giant into three or four separate companies. According to experts, this decision could cause the company to lose $149 billion in capitalization. A major risk for Microsoft. The company owes a large part of its firepower to its stock market valuation. Share trading is the main purchasing currency in the new economy. It allows for the necessary acquisitions in technology or skills. What's more, Microsoft's valuable employees, who are paid largely in stock options, could evaporate to companies with more favorable growth prospects... Knowing, however, that a fall in the share price of Microsoft, the world's second largest stock market capitalization, could lead to a fall in all financial markets and harm the American economy.

## ###ARTICLE\_START### ID:597

When I was in elementary school, I was passionate about Canadian history. I knew it by heart... at least from what we were taught. With the stories of the Hurons who were the "good Indians" because they were allies of the French and the Iroquois who were the bad savages, because they were allies of the English... Well, that's what we were taught at the time. It's not surprising that the "good French Canadians" had such a hard time getting along with the English and that they were so wary of the "Indians". The story hasn't changed since then, but it is now told differently from what the Brothers of the Christian Schools taught me. It's funny, but at the time no one told me that the first settlers, our ancestors, could have done "un-Catholic" things to the Indians, and especially to the Indian women. I just discovered the true history of Canada by listening to and watching the content of the CD-ROM "New France, on the Explorers' Route". We discover the journal of Jacques Cartier, that of Samuel de Champlain and that of the first settlers. A narrator even reads it to us and it is simply fascinating. I discovered that at a certain time, the Pope had decreed that only the Portuguese and the Spanish could participate in the exploration of the new continent and this even in the future. English, French and other explorers risked being excommunicated if they dared to go on an adventure to the new continent. These are passages that the Brothers of the Christian Schools had forgotten to teach me forty years ago... The authors The content of the CD-ROM seems to be a popular story, but it is still taken from scientific works, various museums and band councils. The authors also received support from the Société de développement des entreprises culturelles (Sodec)/Programme d'aide à la production de titres multimédia and I can say that it is a good investment. In short, it is a job well done and it is a credit to the authors Hélène-Andrée Bizier and Jacques Lacoursière as well as the publisher and general manager Mireille Kermoyan, and her assistant Christine Rebours and the entire production team of the Edirom company. But the CD-ROM does not just transport you to the past. If you are planning a cultural trip to Quebec during the summer, this book will pave the way for you. Profusely illustrated, it contains more than 300 pages of information. I even discovered the origin of the name Pointe-Penouille, located very close to Gaspé, since the word penouille means peninsula in the old Basque language... Is that strong enough? The Penguin That Lays the Golden Eggs Everyone knows about the goose that lays the golden eggs, but in the world of IT, there is more and more talk of the "penguin that lays the golden eggs", the mascot of the Linux group and free software, that is to say, this type of high-performance software that can be obtained for free. On the stock market, anything called Linux is currently causing fever among investors. If you want to know why, go to the Linux Expo, which will be held at the Palais des Congrès in Montreal from April 10 to 12. You won't feel alone since the organizers are expecting 6,000 decision-makers to visit over the three days. As for me, this operating system is smiling more and more, as a matter of principle. Not only is the system robust and reliable, but to this day, it seems immune to viruses and is said to be safe from "hackers"... until proven otherwise. And yet Linux has over 15 million users worldwide and this number continues to grow. At the Palais des Congrès, 98 companies that specialize in making Linux-compatible software will be present at the Linux Expos. The Linux Canada site (www.linuxexpocanada.com) has been receiving over 8,000 visitors per day for the past few months. As for software dedicated to Linux, you can find some at http://www.andover.net The mirror maker Does the profession of mirror maker mean anything to you? Well yes, it is the artist who makes mirrors. I say it is an artist since here it is a lady who makes personalized mirrors using flowers, stones, photos or texts. François Bourassa invites us to visit the site of his partner Chantal Houle, Miroir-Symbolique, at the following address: http://www.miroir-symbolique.qc.ca I will leave it up to you to discover it.

## ###ARTICLE\_START### ID:598

Hey, what if we saved Iridium? What if, by all getting together, we bought the mobile phone space network that was destined for scrap (Libération, March 22) to turn it into a collective tool for global communication, managed in a spirit close to the solidarity economy? This is the attractive idea that three American friends, computer scientists by profession, have just had. Mike Emsa, Jason Matthews and Christopher Neitzert started by launching a website (saveiridium.com) in order to unite a large community of Internet users around their project. On March 23, an article in salon.com, the most famous electronic newspaper, gave a global echo to their initiative. Since then, judging from the reactions in the discussion forums, the idea is gaining ground and generating quite a bit of enthusiasm. The ambition is certainly excessive given the bill: the three boys estimate that 650 million dollars (4.3 billion francs) will be needed to buy the satellite constellation and allow it to operate for a year. But hasn't the Internet community shown that it can work miracles? Haven't the artisans of "free software" succeeded in shaking up the Microsoft empire by associating around programs like Linux? The initiators of the SOS (Save our satellites) project hope to rally 3 million Internet users contributing 50 dollars (340 francs) each to their crusade. The additional 500 million would come from partnerships, donations and merchandising. Then, the most interesting part, would be to exploit the collective intelligence of this community to divert Iridium from its primary function. What to do with a planetary network but with a limited flow rate (9,600 bits per second)? Suggestions are welcome. "In terms of coverage area, Iridium is ten times better than the Internet," notes Christopher Neitzert in salon.com. "It would be sad and even sacrilegious to let these satellites burn in the sky." Iridium is currently working on a plan to "deorbit" its constellation, which would consist of destroying the satellites by hurling them one by one into the atmosphere. So it's a race against time that has begun, and a nice challenge to the "alternative" Internet.

## ###ARTICLE\_START### ID:599

Let's be realistic, it's pretty hard to do without Windows completely. Although you can do almost everything under Linux, sometimes you need to run a Windows application. Hence the interest for any Linux user to have access to an emulator that can run code from Uncle Bill's world. The best-known Windows emulator is undoubtedly Wine (www.winehq.com ). The editors of the popular Mandrake distribution (www.linux-mandrake.com ) have just got their hands on another emulator that was until now offered in a commercial version, Bochs (www.bochs.com ). First change, Bochs will soon be available for download under the LGPL license, while Kevin Lawton, the original creator of Bochs, has just been hired to complete the Plex 86 project (www.plex86.org ), a free alternative to VMWare software Los Lobos The 24th most powerful supercomputer in the world is made up of simple PCs and the Linux operating system (www.lobos.nih.gov ). Capable of performing more than 375 billion operations per second, this aggregation of 256 IBM Netfinity servers running a special version of the Linux operating system, Beowulf (www.beowulf.org ), will be used by researchers who need access to a supercomputer, all within the framework of the National Science Foundation's National Computational Sciences Alliance program. Los Lobos stands for "lot of boxes on shelves" Where does Linux fit into the college network? I strongly suggest you read an article by Pierre-Julien Guay, "Is it time for Linux?", in the February issue of Clic!, the college newsletter on information and communications technologies (http://ntic.org/clic/CLIC33/linux.htm ). Still in the same vein, on the Multimédium cybermag site, Joël Pommerleau, vice-president of the firm iNsu Innovations, describes the profound changes that the world of computing and software must undergo with the arrival of open-source software (www.mmedium.com/ dossiers/PIB/gnulinux.pdf).

## ###ARTICLE\_START### ID:600

Do you know the Canvas application? This graphic application, well-rated in the world of the Holy Apple, will soon be available on the Linux platform. By the end of March, a first beta version will be available on the Deneba website to be downloaded for free. A serious competitor ready to respond on equal terms to the claims of the CorelDraw suite from the Canadian publisher Corel. Deneba: www.deneba.com Kernel 2.4 The work surrounding the finalization of the highly anticipated kernel 2.4 of the GNU/Linux operating system has entered a final and accelerated phase. This major update will allow Linux to support multi-processor mode, as well as the vast majority of USB peripherals on the market such as digital cameras, ZIP readers, scanners and tutti quanti. www.kernel.org Linux Expo Americas All Linux users, developers, manufacturers, distributors, integrators, consultants, decision-makers and investors in the province are meeting at the Palais des congrès de Montréal from April 10 to 12, 2000 for Linux Expo Americas. Nearly a hundred companies will be present at this exhibition, which will be the first of its kind to showcase innovations in the Linux world. Prestigious speakers such as Eric S. Raymond, Richard Stallman, Mike Cowpland of Corel, Bob Young of Red Hat and Dirk Honhdel of Suse will be on hand to spread the good news. Registration for Linux Expo Americas can be done immediately by visiting the website of the organizing firm, Sky Events. Linux Expo Americas: www.skyevents.com/FR/ I-Opener The I-Opener Internet access terminal from Netpliance was torn to pieces by a little joker who quickly realized that the inside of this device was a PC x86 architecture computer. A hard drive and a bit of tinkering later, here is the I-Opener transformed into a device that can run Linux, Windows or BeOS. Curious? Visit the smart guy's website at the following address: www.linux-hacker.net/iopener

## ###ARTICLE\_START### ID:601

Bernard Lang's only concession to the strip-tease trend that dominates the personal page genre: two photos of his children and a sprig of lily of the valley. The Internet user can barely find on his website the few essential biographical details to know who he is dealing with. His address, the functions he holds at Inria (National Institute for Research in Advanced Computer Science) - he is a research director there, his position as secretary of Aful (French-speaking Association of Linux and Free Software Users) are only given in passing, almost drowned in the heart of a string of links to other sites, articles, interviews, electronic publications that give an overview of his interests. On his personal page, Bernard only mentions in half-words the existence of his wife, his two children and his Yorkshire, Jade. But there is a list of links, an "images" section that features schoolboy jokes about the misadventures of Microsoft boss Bill Gates, the nice phrase "Windows, the best operating system... of human stupidity" and which indicates the position of the defender of free software, these programs like Linux, written in an open and collaborative way. So many signs that provide much more information than if he posed for a photo with his family and his Yorkshire terrier. "I first built this page for myself, at the beginning of 1994, to see how to make a page in HTML", the language for creating web pages. And the researcher continues to feed it and use it as a work tool, "to find documents quickly, since I have no memory". And then, "if it's useful to me, there's a chance it will be useful to others". Spread knowledge and, at the same time, provide keys to understanding the challenges of the digital revolution. Icons (a pirate's head, a bomb for "legal terrorism", the image of the little MacOS smile, etc.) provide, as he says, a "coloring" to the texts, like a degree of relevance established by himself. "I don't know who it can be useful to, students and journalists, no doubt", he says as if to persuade of the harmlessness of his remarks. But on the site, he lets himself go into a fit of anger against Robert Redeker, the intellectual who denigrated the effects of the Net on the education of children. A way of putting back in place these "philosophers who hold forth on TV sets and participate in a movement that drowns democracy in irrelevant chatter". pauillac.inria.fr/~lang/

## ###ARTICLE\_START### ID:602

Small press release from the friends of Corel: the popular image editing software PhotoPaint 9.0 will be available for free at the beginning of this summer on the Corel website. Often compared to Photoshop, and having most of its features, PhotoPaint will be integrated at the end of the summer into Corel's complete graphics suite, CorelDraw 9.0. Unfortunately, this suite will not be available in open source code, nor for free. www.corel.com OpenDesk Version 2.0 of OpenDesk is now available on the OpenDesk website. Developed by the firm HBE Software, this version succeeds version 1.0, proof of concept of this free general public intranet. Visit the following address: http://www.opendesk.com Interbase Looking for a powerful database, available in open source code? Zip! The company Inprise (Borland) has just released its database management software Interbase 6.0 into the wild. Available on Linux, Windows NT, Solaris and other flavors of Unix, Interbase is used by Nokia, Ericsson, MCI, Northern Telecom, NASA and the US Army. Remember that Inprise was bought by Corel a few weeks ago. www.interbase.com An OpenSource encyclopedia? First, there was the free-source software. Then, the OpenContent texts, and now, a team is working on the creation of an online encyclopedia. Nupedia, that's the name of the project, proposes to use the vast resources of the Internet to create a gigantic encyclopedia on the network of networks. Obviously, such a project is not about to come to an end, because it will rely on an army of volunteers and volunteers, just like the Linux project. http://www..nupedia.com/

## ###ARTICLE\_START### ID:603

Rumors, rumors, when you hold us. According to the remarks made by a senior manager of LinuxCare, there would be more than 34 Linux programmers hired by Microsoft who would be adapting the MS Office office suite to the world of the Penguin. Remarks quickly denied by a public relations officer of the Redmond firm. "Adapting the Office suite for Linux is not one of our priorities." It would indeed have been surprising to see Microsoft "Linuxify" its office suite. Before Microsoft adopts the OpenSource model, chickens will have teeth. Civilization OpenSource Let's relax, this is not the official version adapted by Loki (www.lokigames.com ), but rather a completely OpenSource version, in progress for some time already. FreeCiv (www.freeciv.org ) is a clone of the popular strategy game and just like its big commercial brother, multiplayer. "Released" under the GNU/GPL license, FreeCiv compares favorably to Civilization II. What are you waiting for to download it, as well as its source code? ATI and Linux More and more, peripheral manufacturers, realizing the Linux wave, offer "Linuxians" drivers allowing to use their products with this operating system. The largest manufacturer of video cards in the world, the Canadian ATI (www.atitech.com), announced last week the availability of the ATI VHA (Video Hardware Acceleration) Software Development Kit, thus allowing in the near future, to see Linux support the MPEG-2 standards and the reproduction of a DVD under this popular operating system (www.ati.com/na/ pages/resource\_centre/dev\_rel/linux.html ). ATI had already entered into a strategic agreement with Precision Insight (www.precisioninsight.com), a Linux development firm in Texas, to program an OpenSource version of its drivers for Rage 128 chip sets. A version for Rage Pro cards is already available at the following address: http://utah-glx.sourceforge.net The French administration will run on Linux Read on the Da Linux French Page site (www.linuxfr.org): the French Ministry of Culture will switch to the Linux operating system by 2002. Its 600 servers will all be converted to Linux servers. The economies of scale, in our opinion, will be considerable. When will the Quebec administration make an identical gesture? Obviously, we should start by destroying the perception that network administrators have that anything that is free and open source is automatically a second-rate product. Linux Pre-Installed on a PC Many readers, attracted by the "penguin" wave, ask me if it is possible to buy a computer with Linux pre-installed. A Montreal reseller, SigmaWave, offers this service and can thus offer you a high-quality computer with Linux and Windows "ready to use". No need to salivate over the ads in American magazines offering this type of service. SigmaWavewww.sigmawave.com 2155 Mackay 514-843-8595

## ###ARTICLE\_START### ID:604

The noose is tightening around Microsoft. The antitrust trial that began in October 1998 is coming to an end soon, and the American authorities seem determined to take measures that could have serious consequences. Judge Thomas Jackson, in charge of this case, made statements last week that left little doubt about his state of mind, comparing Microsoft to the Rockefeller oil empire at the beginning of the century. Is this a personal conviction or a statement aimed at raising the stakes in the negotiations that are taking place in parallel in the greatest secrecy in order to find an amicable agreement? The judgment should be given in early April, and it is already certain that the party that lost the trial in the first instance will appeal. The verdict would then be delivered within a year. In the meantime, Microsoft is displaying unwavering optimism. "We are absolutely 99.99% certain of winning the appeal," assures Michel Lacombe, president of Microsoft Europe, without apparent qualms, stressing that the group is making its "best efforts" to reach a negotiated agreement. Bill Gates' firm is, however, uncompromising on its latitude to offer products in the future that integrate features, in this case Internet Explorer, that correspond to market developments. Michel Lacombe affirms that the attitude of customers has not changed in any way by the various episodes of the trial. He cites as proof the good reception of Windows 2000, the operating software designed to manage corporate IT, launched a month ago. Nevertheless: users point out that Windows 2000, whose technical ambitions have been revised downwards, will once again be imposed by computer manufacturers who will install it automatically. Hence a certain wait-and-see attitude at a time when Linux, the free and open source software, is making a remarkable breakthrough in the business world with nearly 25% of the market share in the world of servers compared to less than 40% for Microsoft. For many observers, a condemnation of the firm founded by Bill Gates is looming on the horizon. The sanctions could take different forms: cutting the group into equal pieces so that they compete with each other, splitting the operating software part of the application programs activity or even forcing Microsoft to stop investing in areas more or less distant from its original domain. These are possibilities that Microsoft's leaders do not want to consider for a single second, but are nevertheless starting to present themselves as victims of the competition's maneuvers. And they point to the articles published last week on Microsoft's role alongside the National Security Agency, the American organization in charge of technical intelligence, following a report by the French Ministry of Defense on the subject. Claims denied by Microsoft, but without much argument. This is a new sign of inadequate communication in the face of growing hostility.

## ###ARTICLE\_START### ID:605

After having been a somewhat confidential operating system for a long time, known mainly to engineering schools and computer science students, Linux is now enjoying growing success. Linux World, held in San Jose, California in March 1999, attracted 120,000 and then 180,000 people in August of the same year. In Paris, while the 1999 exhibition had gathered 6,000 visitors, the one in February 2000 attracted more than 8,000. And 165 companies, compared to 87 the previous year, had responded to the organizers' call. During a visit, one could see big names in the computer industry such as IBM Lotus, Compaq, Oracle, Sun Microsystems, Hewlett-Packard, start-ups, educational institutions, associations and, of course, Linux distributors, Mandrakesoft, Suse, Red Hat. "This event lived up to the prospects offered by a market that is currently booming," notes Nedad Cetkovic, director of development for the IDG group, organizer of the show. In fact, according to a study by the IDC firm, the number of Linux servers increased by 212% in 1998, from 236,000 to 748,000 installed units. At the same time, the number of its users increased from 12 to 15 million. On a global scale, Linux represented 17.2% of the market share of operating systems. In Europe, it holds 26% of the web server market, ahead of Windows and just after Unix." France Télécom, which has placed "Voilà", its Internet search engine, under Linux, recently announced that its entire intranet would be placed under the same system. L'Oréal, Trois Suisses, Alcatel have also integrated Linux for the management of their Internet sites. Furthermore, according to another IDC survey conducted in the United States, Linux and free software now affect 21% of medium-sized American companies and 30% of large accounts, including NASA. This challenges the preconceived idea that the open operating system mainly concerns small structures. Beyond its recognized role as a server, Linux is increasingly being deployed in critical functions of the company and is extending to specific markets. Thus, the field of embedded applications and hardware offers it significant potential. In the world of research, there are countless organizations, such as Inria, CEA, and Cent in France, which have chosen to entrust their intensive calculations to PCs running Linux to replace traditional supercomputers. Finally, according to an RHI (Robert Half International) survey, 57% of companies expect the Linux system to play an increasing role in the IT world. Although he believes that the figures put forward by some analysts should be viewed with some caution, Stéfane Firmigier, a believer from the very beginning, is nevertheless pleased. The young founder and president of Aful (French-speaking Linux Users Association), a graduate of the École Normale Supérieure and a doctor of mathematics, encountered Linux during his studies. "It allowed, as with Unix, interesting developments to be made, with the advantage of being free and being able to be installed on a PC whose price was then affordable for a student's budget." Founded in 1998, Aful's primary objective was to make the concept of free software known to the general public and to present to professionals the advantages of high-performance, open and independent computing. "Today, we work more specifically with the various ministries and local authorities in order to create a framework for using Linux in administrations." Now that the take-off phase is over, requests for Linux specialists are increasing. However, Stéfane Firmigier acknowledges that they are still rare. A highly sought-after training Sales engineer at CS Institut, Philippe Doazan notes that, for several months, requests for Linux training have been constantly increasing. "We have also noticed that they are coming from increasingly large companies and administrations. The army, RATP, SNCF are making inquiries. In June 1999, IT managers were asking questions. Today, they are starting to take the plunge and equip themselves with Linux. On our stand at Linux Expo, we have four times more requests for training than the previous year." CS Institut's offers are aimed at employees in office who wish to tackle new topics or improve their skills. The courses generally last five days. "For Linux, we have set up two courses. Professionals who are familiar with Unix can be brought up to speed during this period of time. The others, on the other hand, must follow three specific modules. We recently obtained Red Hat distribution certification. To obtain it, one of our trainers went on an internship at the company's headquarters in the United States." To generalize the use of free software in companies, Red Hat has launched a vast training program that operates worldwide. A groundswell Created in the 1980s, Peregrine has had several lives. This American company publishes software for infrastructure management (all the company's technical equipment). For four years in a row, its turnover and workforce have grown by more than 100%. In April 1997, when it was listed on the stock market, it had 135 employees; it now has 1,300. "While Linux is new to us in commercial terms, we have known this system for a long time," explains Jean-Marie Vidal, head of research and development project coordination for Europe. Indeed, the tools we develop to create Peregrine applications allow us to largely abstract ourselves from operating systems, databases or human-machine interfaces. When we create an application, even if, for example, we only market it in the Windows world, we impose ourselves, in order to validate the multiplatform nature of our tools, to make it run on other operating systems, including Linux. Two years ago, the subject was almost taboo; we kept quiet about the fact that we used Linux. Today, it's the opposite. To be able to create these applications, we need experts who know Linux well. We find them in particular in the IT associations of engineering schools, which often have Linux experts. In the major generalist schools, there are few IT skills but they are of excellent quality. On our research sites, we encourage self-training and technological monitoring. » For Jean-Marie Vidal, the Linux craze is not just a passing fad, but rather a groundswell. Linux Expo has certainly attracted students and developers, but also companies, buyers, IT managers, etc. For a student or a developer, it is important to have Linux in their area of expertise, just as object-oriented languages have become essential.

## ###ARTICLE\_START### ID:606

How about running Windows 2000, Windows 98, Linux and one or two other operating systems simultaneously? With VMWare, it is possible, but be careful: the price to pay in hardware resources will be high. As I write this column, in one window, the Linux operating system is running with a KDE interface, while in another, Windows 98 SE is running, and the base system is Windows 2000. Miracle? No, simply an ingenious little software called VMWare that allows this miracle to be achieved. Not an emulator, VMWare (www.vmware.com) truly allows you to "create" virtual machines, each hosting a different operating system. I admit that I was very skeptical when I saw the promises that this software was supposed to fulfill. It was while visiting the last Comdex in Montreal that I had, thanks to the managers of Savoir Faire Linux, a very convincing demonstration of this software. Not only did multiple operating systems coexist, but it was even possible to copy and paste from one window to another. For example, it was possible to copy text from a Word window running under Windows 2000, to a Linux window and the text editor of the StarOffice office suite, and then do the same operation in a Windows 98 window and Wordpad. However, VMWare is not for everyone, far from it. First, I have never seen software that is so resource-hungry. According to VMWare, a Pentium II-266 and 96 megabytes of RAM are more than enough to run two operating systems at the same time. Don't believe it. For everything to really be up to par, a Pentium-450 and 256 megabytes will not be too much for everything to be "comfortable" and perform at a reasonable speed. Second, gamers who dream of working under a stable environment like Windows 2000 can offer, and occasionally open a Windows 98 window, an operating system better suited for the gaming environment, will be disappointed too. Not that the games don't work, quite the contrary. But the very new games are very demanding and require accelerated 3D video cards, which are, unfortunately, not supported in the current versions of VMWare. No, VMWare is mainly aimed at the person who absolutely must quickly switch from one operating system to another, for example, someone in technical support, or an HTML programmer who must test his site with different browsers, under different platforms. There are currently two versions of VMWare, one for Windows NT and 2000, which can run Linux, Windows 95 and 98, or FreeBSD, and another, for Linux, which can occasionally run Windows 2000 or 98 sessions. And hurry up, because version 2.0 beta is currently available for free download from the VMWare website. Mail from the kneecap Hey, it's been ages since I last answered any questions. Shame on me, am I losing touch with the readers? Why not fix this serious mistake immediately? Come on! Questions! GoLive or Fusion? May I ask you this question (But yes, but yes. Dare!) What do you think is the best web page creation software in the context where the site will be designed, supported and updated by a team of graphic designers equipped with MacIntosh and a professional Windows analyst, in short! I am told that Adobe's GoLive allows this, that is to say that both teams can work on corrections and usual updates from their reciprocal environment. We do not have much experience in this area, and especially no money to hire outside consultants! This is why I would like to ask you what you think about it. In one of your columns, you recommend Fusion by NetObject. Elsewhere, GoLive is recommended to me. What should I think about it? Claudine Parent, CHUQ In the context as you describe it to me, I recommend GoLive without any hesitation. GoLive and Fusion by NetObjects are two extremely powerful tools, allowing you to "build" and edit a website in a quasi-WYSIWYG environment. Personally, I prefer Fusion because of the possibilities offered by its openness, that is to say that we can graft additional components to this software package, a bit like the extension modules in Photoshop. GoLive also has this functionality, but Fusion is more mature and the components offered, more numerous. You can get an idea of the power of the components offered for Fusion by visiting the Coolmaps Club site (http://club.coolmaps.com). But since you will have to deal with people who will have to work on the site from different platforms, GoLive, which is offered in Macintosh and Windows versions, remains an excellent choice. Small suggestion in passing: if you think you will work with tons of information coming from a database, can I recommend you to take a look at Filemaker 5.0 (www.filemaker.com) which will allow you very easily to concoct one of these small sites entirely automated and dynamic. Linux for the Mac Dear "B-52" (I suspect a question from an old friend) Congratulations again for your column, I always appreciate your contributions (as I am stubborn, I accept the honors). Just for you today. I have a simple little question. I am now a disciple of the Holy Apple, G3 tendency. As you surely know, I can directly read most DOS or Windows files without problem and run software from Uncle Bill's world with an appropriate emulation tool, Virtual PC, not to name it. I can therefore easily format a hard drive for this platform (in whole or in part). Now master Linux is out of the forest and I was wondering if it is possible to install this new animal on a Mac, and thus dedicate part or all of one of my hard drives to it. If so, could you advise me on the best way to proceed? Thanks again and all my warmest regards to your partner (if you have one) and to "Miss Baby". Your old friend and ex-neighbor from twenty years ago Gilbert Lachapelle. Maniwaki. Dear old comrade, allow me to greet you too and offer you some advice, which I hope will enlighten you. Know that you already have the seeds of the solution. For example, did you know that Connectix, the publisher of the Virtual PC emulator, and Red Hat, one of the most popular distributions on the market, have just concluded a strategic agreement. Under the terms of this agreement, Connectix will sell a special version of Virtual PC with the Red Hat distro. A bit twisted according to you, because after all, you now have the possibility of acquiring a version optimized for the Mac of the GNU/Linux environment. And since a very large majority of software is available with the source code, you will therefore be able to recompile the code for your Mac. But don't hesitate to try both solutions. Speaking of distributions for the Mac, point your browser to the following sites: LinuxPPC (www.linuxppc.com) or YellowDog (http://www.yellowdoglinux.com), you will see two distributions full of potential. Come on, a kiss, dear old friend, and say hello to Collerette, Morin and company for me. And I kiss Miss Bébé (who no longer has one) from you. PENGUIN CORNER Linux Expo Americas After the unprecedented success of the recent Linux-Expo conventions in Paris and New York, Montreal will also have its Linux fair. On April 10-11-12, at the Palais des Congrès, Linux Expo Americas (http://www.linuxexpocanada.com) will be held, organized by Sky Events. Conferences by Michael Cowpland, from Corel, Bob Young from Red Hat, Eric Raymond, the author of "The Cathedral and the Bazaar" and many others. For three days, all the players and stakeholders in the Linux world will be there. Of course, as in any good trade show, you will be able to walk around the exhibition floor to see the achievements of more than 150 exhibitors. It's a rendezvous. We will be there, we promise. Linux everywhere The Penguin craze is spreading everywhere in Quebec, and the same goes for user clubs. A user club is the ideal place to get a taste for Penguin, and especially, when you are a simple neophyte, to have enthusiasts explain to you what the GNU/Linux operating system is. Here is a list of Linux user clubs in Quebec. - Outaouais Linux Outaouais www.linux-outaouais.org - Quebec The Linux club of Laval University www.bacc.ift.ulaval.ca/~acmlaval/clublinux.htm - Sherbrooke The Gulus or Linux user group of the University of Sherbrooke http://gulus.netrevolution.com/ - Lac St-jean The regional grouping of Linux users of Lac St-Jean http://linux.lacstjean.qc.ca - Trois-Rivières CULT or Linux User Club of Trois-Rivières www.lecult.org Zope The tools to edit and create dynamic websites are not cheap. It is enough to have an apoplectic fit when you ask for an estimate for the first time from a tool like Vignette (www.vignette.com). However, there is a tool, a free, open-source software available for Linux, Solaris and Windows NT, that allows you to create automated and dynamic sites. Its name? Zope (www.zope.org). By the way, for all those who are curious to know more, a conference on Zope will be held on April 12, during a monthly meeting of Linux-Québec. On March 8, Benoit de Mulder will present the Beowulf project (www.beowulf.org). All the information can be found on the Linux-Québec site (www.linux-quebec.org).

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This is a fuss that Microsoft could have done without, on the very day of the release of its new Windows 2000 (Libération, February 17). The television channel Bloomberg TV is categorical: on the sidelines of an interview broadcast Thursday evening, Bill Gates, co-founder of the company, declared himself ready to open the source code of Windows if that could allow the dispute with the American justice system to be settled. In other words, to reveal its manufacturing secrets. And, above all, to allow competitors to market their own, reworked version. Such a measure is one of the hypotheses mentioned for the amicable settlement of the lawsuit between Microsoft and the American government (1). The announcement, coming from Bill Gates, was devastating. Panic in the company, which published a press release a few hours later to deny everything. Microsoft asked Bloomberg TV to retract its statement, but the channel maintains its version of events. The source code is often compared to the musical score, the cooking recipe or the tailor's pattern. It is the set of programming lines created to manufacture the product. With so-called proprietary software, such as Microsoft's, users do not have access to it. They simply "consume" the result. The openness of the source code characterizes free software, the best known of which, Linux, is experiencing rapid growth in companies. It allows users to modify the software, quickly correct bugs or adapt it to their needs, without waiting for a new official version. "The sources of Windows NT and Windows 2000 (the products intended for corporate servers, editor's note) are already distributed to around fifty research laboratories around the world, including Inria (National Institute for Research in Computer Science and Automation) and the CNRS in France, explains Olivier Ezratty, director of marketing and communication at Microsoft France. But this distribution is not intended to authorize people to create another version of Windows." A measure officially ruled out by Microsoft. (1) Microsoft and the antitrust authorities are due to return on February 22 before Judge Jackson for final arguments. Negotiations have been taking place in Chicago since late 1999. They are being supervised by a mediator appointed by the judge. In the absence of an amicable settlement, Jackson will rule.

## ###ARTICLE\_START### ID:608

To the left of a large room, two executives in suits are writing numbers on a board. Salespeople are busy on the phone. To the right, the scenery changes: dismantled computers litter the floor, screens clutter the desks. Programmers, dressed loosely, are fiddling with keyboards. It's a clash of two cultures: the executives come from an auditing firm. The programmers are mostly former volunteers working on the creation of free software. Today, they are all employees of the same company. Mandrake Soft is a start-up (a young company boosted by venture capital) like dozens of others in the "Silicon Sentier", this Parisian district popular with high-tech companies. Its turnover is still small (1 million francs in 1999). After pocketing tens of millions from investors, including Axa and Viventures, it is preparing its IPO. It is one of the five main companies selling software and services to businesses based on Linux technology. Like its competitors (the Americans Red Hat and Caldera, the German Suze...), it is trying to combine the development of a lucrative start-up with participation in a community based on giving and sharing. Community. When Jacques Le Marois, the founder of Mandrake, recruited those he called "seniors", he gave them the Cathedral and the Bazaar (1), the cult text of the Linux community, explaining the free software model that the company claims: not to sell anything that cannot be freely copied, to allow users to modify the products (see box). The model even allows the resale of products created by others. A bit like if a musician allowed all record companies to sell his works. Or as if a great fashion designer published the pattern of his creations on the Web and allowed everyone to draw inspiration from it. This is how Mandrake was formed, by taking the Red Hat version of Linux and coupling it with the KDE graphical interface, another free software. "We took Red Hat and changed the bodywork," summarizes Jacques Le Marois. Which Red Hat watched without flinching as a competitor arrived that was content to sell its own product in a slightly different form. "People who make free software know that there are people who can get rich off their backs," says Frédéric Couchet, head of April, an association supporting free software. "From the start, they agreed." A model described by the academic Richard Barbrook as "cybercommunism", a priori the antithesis of commercial logic. And yet, investors are throwing themselves at Linux and Wall Street is keen on companies in the sector. For example, VA Linux, a company selling computers pre-installed with this software, saw its share price increase by 698% on the day of its IPO in December. Red Hat's stock price has increased fivefold since its IPO last summer. There are two possible interpretations. On the pessimistic side: Linux is being co-opted by the market. On the optimistic side: investors are unwittingly supporting a subversive model; they are supporting an enemy of capitalism and a new "gift economy". The fact is that companies that are soaring on the stock market are not questioning this principle of giving. Their motivations are similar to those of volunteer programmers: by giving their time and work to the community, they help the community as a whole prosper, and they benefit from the donations themselves. For individuals: through prestige or job offers. For companies: through the sale of associated services. "About fifteen people employed by Suze develop mainly for the Linux community," explains a company spokesperson. This is also the case at Red Hat, which employs renowned Linux kernel developers, or Mandrake, which hired developers for KDE, a graphical interface for Linux. Volunteers. Thus, liberal logic would not oppose anarcho-libertarian principles. Better, it would reinforce them. This is in any case what developers, entrepreneurs and also activists for the cause of free software claim. Especially since the same companies that work voluntarily hire volunteers. Thus, Pascal Rigaux, a 24-year-old developer, now an employee of Mandrake, developed free software on his own for a long time. Spotted by Mandrake, he then worked for free to improve their software. "Programmers who succeed are snapped up by companies that take advantage of their image," he says. "Currently, all the big projects around Linux are developed by people who belong to companies in the sector." Their integration sometimes holds surprises: when we meet him, Pascal Rigaux discovers a new title on his business card: "project manager". His outfit (jeans, T-shirt and sneakers) does not suggest anything of the sort. He defends himself: "It's nonsense, I'm a developer or hacker, absolutely not a project manager." Linux distributors have found another way to reward the community: reserving a portion of the capital for active developers when they go public. But this summer, Red Hat's commendable initiative backfired. Programmers had to register with the online broker E-Trade to benefit from the offer. Many of them were rejected because they did not present sufficient financial guarantees... Some were humiliated. Jacques Le Marois thinks that Red Hat "has had a rough go of it". For him, the implementation of such a reward system is a condition for Mandrake's entry into the stock market. Pioneers. A minority of "free" pioneers see these developments as commercial recovery. The majority, like Jacques Le Marois, think that it is necessary to "inject money to compete with companies like Microsoft". However, some denounce a drift: the non-compliance, by certain companies, of the rules of free software. Or their diversion, by integrating or selling proprietary software. This is the case of Corel or Suze whose installation module is proprietary. Others, like Red Hat or Mandrake, are committed to distributing only free software. "If we give to the community, the commercial evolution does not bother me, believes Pascal Rigaux. The idea is to make money by continuing to make free software." (1) La Cathédrale et le bazar, Eric Raymond www.epita.fr/~poinde\_t/religion/cathedrale-bazar.html

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Imagine a restaurateur who would deliver the recipe with each of his dishes. This is how free software works: it is delivered with the source code, that is to say the lines of programming that were used to create it. As a result, anyone can modify the software, correct its defects, adapt it to their needs. Most free software is governed by a license called GPL (general public license). This is the case for Linux, the best known of them, whose design was launched in 1991 by Linus Torvalds, a Finnish student. At the end of this license, all modifications made to the software must be paid into the common pot. It is possible to sell it, but on condition that free copying is authorized. The creators of the software remain the owners of the rights. Conversely, each installation must give rise to the payment of a license. So Linux, an operating system, was gradually refined: thousands of developers contributed to the project via the Internet, competing to make improvements and sharing them.

## ###ARTICLE\_START### ID:610

"Most of you steal your software. In doing so, you prevent good programs from being written. Who can afford to work for nothing?" It was with this letter published in a student newspaper in 1979 that William Gates, a young, hairy student who would later become known as the founder of Microsoft, began his career as a master thinker and marketing strategist (1). It is indeed from this conviction (the right to use software must be sold) that the Redmond company has made its immense fortune, today estimated at around 523 billion dollars, just like its competitors, the other software publishers. However, a year ago, the emergence of the Linux operating system (the basic software of a microcomputer) threw a spanner in the works in the software world: it was indeed a minor challenger to Windows, Microsoft's flagship product that equips 90% of the world's microcomputers. In the server operating system segment, Linux even has a 17% market share. However, unlike its predecessors Windows or MacOS (the operating system used for Apple's machines), it was not designed by programmers paid for this task, but by hundreds of volunteers, working for free by communicating on the Internet. Their only link was the coordination by Linus Torvalds, a Finn at the origin of the project, who defined the evolutions of the product based on the work contributed by each. For the first time in two decades, the credo of the CEO of Microsoft ("All software deserves a salary.") was partly called into question by a new economic model, of which Linux is the emblematic figure: the free software model or joint development of computer programs that can be downloaded for free on the Internet. While the source code of these products, that is to say its industrial secret, remains accessible and modifiable by all, unlike what happens with the major players in the sector. It is the "revenge of the nerds", these programmers who are so passionate that they are considered autistic, on the "microserfs", these employees working on software projects at a major publisher described by Douglas Coupland in one of his best-selling novels (2). However, this system apparently defies all economic rationality. How can these programmers, students, employees of IT companies or simply enthusiasts, spend hours creating or improving this software without asking for anything in return? Even though, in addition to being available to everyone, they can be resold by any distributor, the latter not being able to appropriate for himself the usufruct of their work (3). The mystery deepens when we know that, far from being proven or retarded adolescents, programmers in the free world are often family responsibilities settled in life, as is the case today with Linus Torvalds himself. In addition to the pleasure (designing software is often exhilarating for aficionados), the volunteer actors of free software find several interests in their work. First, a purely practical utility: the programmers who wrote the free software Apache in 1995, which manages more than 50% of the Internet sites worldwide, mainly needed a solid tool, the Nestcape and Microsoft products then available not being considered satisfactory. Subsequently, the fact of having left the source code of Apache accessible to all allowed others to take up the torch, all users being able to benefit from the evolutions of the products for free. Then and above all, glory. "Like Sunday painters, the remuneration of the free software programmer is the recognition of his peers," explained Jon Hall, president of the Linux International association during a conference given in Paris in 1998. The communities that have formed on the Internet to jointly produce this software therefore resemble true meritocracies, the supreme reward being to become coordinator ("maintainer") of a project after having distinguished oneself by one's talent. "Most of you steal your software. In doing so you prevent the writing of good programs. Who can afford to work for nothing?" It was with this letter published in 1979 in a student newspaper that William Gates, a young hairy student who would later become known as the founder of Microsoft, began his career as a master thinker and marketing strategist (1). It is indeed from this conviction (the right to use software must be sold) that the Redmond company has made its immense fortune, today estimated at around 523 billion dollars, just like its competitors, the other software publishers. 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For the first time in two decades, the credo of the CEO of Microsoft ("All software deserves a salary.") was partly called into question by a new economic model, of which Linux is the emblematic figure: the model of free software or joint development of computer programs that can be downloaded for free on the Internet. While the source code of these products, that is to say its industrial secret, remains accessible and modifiable by all, contrary to what happens with the big players in the sector. It is the "revenge of the nerds", these programmers passionate to the point of being reputed to be autistic, on the "microserfs", these employees working on software projects at a major publisher described by Douglas Coupland in one of his best-selling novels (2). However, this system apparently defies all economic rationality. How can these programmers, students, employees of IT companies or simple enthusiasts, spend hours creating or improving these software programs without asking for anything in return? Even though, in addition to being available to everyone, they can be resold by any distributor, the latter not being able to appropriate for himself the usufruct of their work (3). The mystery thickens when we know that, far from being proven or retarded adolescents, the programmers of the free world are often family men who are settled in life, as is the case today with Linus Torvalds himself. In addition to the pleasure (the design of a software is often exhilarating for aficionados), the volunteer actors of free software find several interests in their work. 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The one who gives the most wins the most

## ###ARTICLE\_START### ID:611

Picture the picture: an old downtown building with wood floors and brick walls, young people in black t-shirts drinking Coca-Cola by the case and espresso in industrial quantities, a dark room lit by the glow of the many computer screens, and a company president with strong ideas, with a mantra: "We must give back to the community." Welcome to hacker culture, at the service of the business world. Welcome to HBESoftware, a company that lives, thinks and breathes Linux. And that turns over millions. Raymond Luk, the president of HBESoftware (www.hbewoftware.com) is a phenomenon. Having met many business leaders over the past few years, Luk does not fit into any of them. Of Asian origin, young and dynamic, Luk, despite a pragmatism typical of business leaders, is a pure product of the hacker phenomenon. Let's not get it wrong, hacker here does not mean computer pirate. But rather someone who is driven by endless curiosity and passionate about technology. As soon as he entered the company's small conference room, he attacked. While he was explaining to me the firm's upcoming move to larger premises to accommodate the current 50 employees, I naturally asked him if he was going to set up in the Cité du multimédia. "It's out of the question, we don't believe in the concept of the City. In addition to being too expensive per square foot, we don't really want to set up shop near our competitors who might have a nicer cappuccino bar to offer our employees [hacker culture, I tell you]. I don't see what the government is doing about it. Whether in New York or California, there is no government involvement, thank God, and look at the success of Silicon Valley or Silicon Alley. It's us, the entrepreneurs, who must stand out through the excellence of our products to impose Montreal on the international market. Instead, we urgently need bold and aggressive venture capital firms that understand the new technology market. And if the government wants to do something for all of Quebec's industries, it should invest massively in education. We urgently need graduates, and it's not by cutting education that the government is doing us a favor, on the contrary. The Cité's subsidies are a smokescreen. They're only good for Bell, Videotron, QuébecTel and the like, not for dynamic small businesses like us." Let's admit it, pretty direct. HBESoftware started four years ago, when Raymond Luk, a music student at McGill University and classical pianist, and two of his acolytes decided to go into business and take advantage of the Internet wave that, they felt, would be huge. The new company's headquarters: Raymond's apartment. "I've always had this passion for computers. I programmed my first application in my third year, on a Commodore PET. Coming from a university background, it was only natural that our preferred development platform would be Unix, and especially Linux. "Over the years, we have developed websites with the same concern: to use only OpenSource products. Using free source code software is an intelligent and rational choice. We believe that proprietary source code software, such as Oracle for example, is a hidden tax. We believe in the Linux community and we give back to it what it gives us." For readers to understand the hack philosophy, it is enough to understand that it is based on several principles: collaborative work, and also the absence of hype, of smoke and mirrors. "We do not talk about products that we are going to make, we rather put our achievements on the table. Hack culture judges its actors by the finished product, not just on beautiful concepts.." OpenDesk: a free intranet concept On the occasion of the Alternative Linux conference, I had the chance to attend a presentation of OpenDesk (www.opendesk.com), HBESoftware's gift to the community, an intranet available immediately and whose source code is also available to all. "To carry out some of our projects, we made an application framework that allowed us to reuse code without having to start all over again each time. The Workbench project (www.workbench.org) was thus born, and we made this software framework available to everyone, on the Internet, source code included. Subsequently, some programmers from the team worked on the creation of OpenDesk, a small intranet available to everyone, allowing anyone who wanted to register to have access to an area on the Internet, where the person could have permanent access, anywhere in the world, to a set of practical utilities. "For example, a calendar, an address list, a messaging service, an area for archiving files, etc. A small organization, for example, could use OpenDesk for free as a virtual business center. It's all there, it's all free. A firm with the necessary programming resources could even download the source code and implement it directly on its own server. And the version 2.0 that we will launch soon will include nearly fifty different applications, with the goal, by the end of the year 2000, of more than a hundred small applications. A word processor, a spreadsheet, an HTML editing tool, a graphics suite, and so on. Why not?" I imagine, dear readers, that, just like me, you are asking yourselves the same question. But how do they manage to keep the company and the 50 employees alive? Simply by service. HBESoftware may offer the source code, but not all companies have the resources of qualified programmers to "massage" the source code and adapt it to the needs of the company. "We are a service company, and this is how we can work and have fun developing our products. And, don't worry, our company has a turnover in the millions and we are totally profitable. We have designed other software like Net.Hub, an application that can compete with the big players on the market like Vignette [a very high-end website management system used by sites like Ziff-Davis or Cent]. A newspaper, a portal, whatever the use, a product like Net-Hub was designed to meet the most ambitious needs of a site. For example, we have just put the finishing touches to Ottawa.com, and we are very proud of it. Thousands of pages, a dynamic and automated management system, and all that with open-source tools like Linux, Apache, Perl or MySQL. No commercial products in there. And not only did the publishers not have to pay anything for the software, but in addition, as in the hacker philosophy, we gave them the entire source code of the Net.Hub application. They can therefore, if they wish, completely modify the application and add new features." The great adventure Precisely, the future. HBESoftware, like many companies in the field of new technologies, has the ambition to become public one day. Already, the company counts as a partner Reg Weiser, the head of the company Positron, a businessman who is completely conventional. According to the partners' projections, before launching the company into the great adventure of the Stock Exchange, they must finalize two or three agreements with venture capital firms. Then, the IPO. "We have already interested several firms. One of the largest venture capital firms in the world, Goldman Sachs, has shown interest. We also had discussions with Microsoft, when they saw our OpenDesk product." But the most valuable asset for Raymond Luk and his partners is the strength of his employees. I was recently talking with a business leader in the field who lamented not being able to find programming specialists, and especially Linux specialists. When I pointed this out to him, Luk started laughing. "The best, don't look for them, they are here. And we don't have too much trouble hiring because the best attract the best. And since they know that we come from the hacker philosophy, it is even easier to keep them afterwards. This is the kingdom of youth, energy, curiosity and mutual assistance. Because that is also what hack culture is, constant mutual assistance, from your work colleagues or even from the global Linux community. Moreover, in about two months, we are going to offer all our employees very generous participations in the company. We care about them and we want them, in addition to being happy within the company, to be able to profit from it." So, who still says that hacker culture and business culture are two completely incompatible worlds?

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In a move that didn't exactly excite the stock market or the Linux community, Corel has just bought the developer tools publisher Borland. After the release of its Corel Linux distribution and the upcoming marketing of its Word Perfect Office 2000 office suite, Corel will now be able to offer the community recognized development tools. Obviously, it would be surprising to see these tools offered under an OpenSource license. Too bad. Fortunately, there are the Kdevelop tools that are available in OpenSource. By the way, a company that sells an operating system, an office suite and development tools, doesn't that ring a bell? Come on, make a little effort Corel: www.corel.com Borland: www.borland.com Kdevelop: www.kdevelop.org KDE Office It's all well and good talking about office suites, but the vast majority are not OpenSource. Even free ones, like Star Office, suites like Applixware, WP Office and the like are not based on an OpenSource license. But let me suggest one that is: KDE Office. It includes a word processor, a spreadsheet, a presentation software, a vector drawing software, and more. Everything is available on the KDE Office site, the binaries and the sources. To see what cooperative development can do best. KDE Office, http://koffice.kde.org LinuxApps and Da Linux French Page Curious to see the "cultural" diversity of Linux? Point your browsers to the LinuxApps software directory site. And to get the latest news in French from the Linux scene, nothing better than a little visit to the Linux French Page. Yes. Yes. Linux Apps: www.linuxapps.com Da Linux French Page: www.linuxfr.org Linux-Québec We can never repeat it enough, the strength of Linux is its community. So let me guide you once again, with great insistence, to the Linux-Québec site, the local Linux users' group. Friendly people, practical advice, active discussion lists and monthly meetings where the local community gathers. A must, my dear Linux-Québec: www.linux-quebec.org

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You've been asking for it for some time, your emails reflected your impatience on the subject, so here, to answer your more than incessant requests, is a Linux column. But be careful, dear readers, the news of the day is that the penguin's corner will return every week. Every week, whether it's a few short news items or an in-depth article, I promise, there will always be news from the penguin. As you know, I have a weakness for this operating system that is Linux. Many of you would like me to declare to anyone who will listen: "Goodbye Windows and MacOS, now I am totally and solely devoted to the very holy religion of the penguin." My professional obligations require me to use PCs running Windows or BeOS, Macintoshes or even delightful little gadgets like the Palm Pilot or PDAs running Windows CE, all as exciting as each other. Sorry, Mr. Lepage, it's not today that I'm going to make a profession of faith as solemn as you demand. I eat at all the troughs and I still have many beautiful and good things to say about the operating systems of Uncle Bill or Uncle Steve, whether it horrifies you or not. All operating systems have virtues and defects. Even good old DOS, which everyone seems to have forgotten. Rules and traditions A question that continually comes up in my email is without a doubt: "Yes, Linux is all well and good, but is it really a viable platform?" So let's take advantage of this first column to take stock of the issue. Your not very humble columnist has defined a set of rules to check to know if an operating system has a chance of surviving against the mammoth Windows. Dumais universal rule number 1: before even thinking about establishing itself on the market, an alternative operating system must be easy to install. A sufficient number of drivers to install the most popular devices on the market must also be available. Dumais Universal Rule #2: For an operating system to be considered by a user, it must offer a graphical interface "like MacOS or Windows". Dumais Universal Rule #3: For an operating system to be a viable alternative, one or more office suites compatible with the market leaders such as Microsoft Office and Word Perfect Office must be able to run smoothly. Dumais Universal Rule #4: For an operating system to become more than a critical success, the best games on the market must be adapted to this platform. Dumais Universal Rule #5: For an operating system to last on the market and not be a flash in the pan, resources (shareware and freeware) must be abundant on the Internet. Let's see if Linux corresponds in whole or in part to the rules of the definitely not very humble columnist. - Rule 1: Ease of installation. Phew, we've come a long way. Not so long ago, installing Linux had to be done by a specialist. With the release of OpenLinux 2.3 versions of Caldera (www.caldera.com), Mandrake 7.0 (www.mandrake.com), Red Hat 6.1 (www.redhat.com) and especially Corel Linux (linux.corel.com), installing Linux on a PC is almost as easy as with Windows. We're still a long way from the proverbial simplicity of MacOS, but Linux developers are making more and more efforts to make things simple. And the upcoming arrival of kernel 2.4, which will emulate a device like Microsoft's plug and play, will surely help even more. As for the drivers for the various devices, finally, more and more manufacturers have understood and are providing Linux users not only with specific drivers but also "relaxing" the specifications so that programmers can improve them. For example, it is now possible to connect and use digital cameras (www.gphoto.org). We can therefore validate rule 1. It passes the test. But only just. Another six months and we will finally be there. - Rule 2: the graphical interface. Nothing to complain about. While 18 months ago, intuitive and ergonomic graphical interfaces did not seem to be legion under Linux, the arrival of the KDE (www.kde.org) and Gnome (www.gnome.org) interfaces has changed the situation. KDE is Windows or MacOS under Windows. Everything is there, including the control panel. And Gnome is a very interesting concept. So let's validate rule 2. - Rule 3: the availability of office suites. Here, it's complete debauchery. The offer of office suites under Linux is incomparable, with the Star Office suite (http://www.sun.com/products/staroffice/), a completely free clone of Office 97, ApplixWare (http://www.applix.com/applixware/linux/), a version, by Jove, rather interesting and with several virtues, and especially with the upcoming release of Word Perfect Office 2000 for Linux. Prepare yourself to hear about this suite. Including the flagship word processor Word Perfect and Linux versions of the Quattro Pro spreadsheet (as powerful as Excel and fully compatible with XLS files), the Corel Presentations presentation software (fully compatible with PowerPoint) and also, in the DeLuxe version, the Paradox relational database, the Word Perfect Office 2000 suite has everything to reassure business leaders and IT department managers who are not yet convinced of the real penetration of Linux in business. Rule number 3 therefore passes the test with flying colors. - Rule 4: games, games, games. On this, I have my little theory that is verified almost every time. Without games, there is no salvation. For example, let's go back a little and examine the period of great darkness of the Macintosh. With the return of the iMac, it is also the return of the game publishers who ensure the new Mac its current success. And on Linux, finally, there are games, and very high quality ones, not just the thousand and first version of Tetris or the game of Solitaire. RailRoad Tycoon II, Quake III Arena, Heretic III, Civilization, Heroes III, we must thank the publishers of the company Loki (www.lokigames.com) who are dipping into them to put the very latest versions of the most popular games on the market. Conclusion: a dozen games do not yet make a platform successful. There is still work to be done but if the trend continues A rule to be re-examined in six months. - Rule 5: shareware and freeware sites. So let's conclude immediately: the parameters of rule 5 have been fulfilled for a long time already. Shareware sites abound on the Internet, hundreds and hundreds of software programs, each as practical as the other, are available to be downloaded. Whether it is the Linux Apps site (www.linuxapps.com) or that of FreshMeat (www.freshmeat.net/), Linux resources abound and I strongly invite you, if that is all you needed to convince you, to visit and explore the treasures contained in these sites. And the vast majority of these software packages are not only free, thanks to the OpenSource approach, but the source code is very often also available. The universal Dumais rules are almost all fulfilled; those who doubted once again the relevance of installing Linux or who believed that Linux was only a media balloon must be disillusioned. Linux, the operating system, is here to stay. And without claiming to replace Windows, which will always remain, and for a long time, the most used operating system on the planet, Linux has everything in its possession to take a significant share of the operating system market. Long live the penguin. Thoughts on another operating system I feel that my next thought will trigger huge bursts of laughter in the cottages but at the same time, I ask the race of techno nerds of this world to think about it more deeply. It was while taking out of mothballs my portable microphone Ouellette-Picard HP 620LX (www.hp.com/jornada/products/600/overview.html) that this thought came to me. As we all know, the field of personal assistants (PDA) is largely dominated by the Palm Pilot. More than 75% of the market is controlled by this pocket microcomputer. A domination that takes the form of a monumental failure for Tonton Billou's alternative, the Windows CE operating system (www.microsoft.com/windowsce). The mistake, here, was without a doubt to want to reproduce to this extent all the functionalities of Windows 95/98 in a small format computer with limited memory. Windows CE is heavy, resource-hungry and not at all adapted to the handheld market. It was while installing software on my 620LX that a flash of inspiration suddenly crossed my mind. Instead of trying to reinvent the wheel, Uncle Bill had long since had the ideal solution that would have allowed him to counter and dethrone the ambitions of 3Com, the firm that developed the Palm Pilot. A simple, well-known, lightweight operating system that required very little in terms of hardware resources and for which thousands of applications already existed. An operating system for which the most intuitive graphical interfaces already existed. Graphical interfaces that would have been easy to buy. So, can you guess what operating system I'm talking about? Yes, that good old DOS, a DOS that still requires 640k of RAM to run, a DOS for which resources abound. I installed a DOS emulator on my 620LX and for a few days now, I've been having fun trying out old DOS software again. Everything works without a hitch. I can't imagine the performance if, instead of having Windows CE as the operating system, DOS was the basic OS with a graphical interface like GEOS or New Deal. Imagine a PDA that offers a software base of tens of thousands of programs from the moment it's launched. The more I think about it, are we still laughing at the columnist? Write him a little note to laugh at him or with him. News from our friend Bélair Good news, uncle Bélair has found his smile and sound on his computer again. He'll probably tell you about it again next week, when he comes back with his delicious CD-ROM chronicles. Does it exist? Let me reassure you: to all those who write to me asking me if my mother really exists and if the adventures she has with her network are true, I answer yes. Although she is flirtatious and does not want her email to be published here, any missive addressed to her will be ipso facto forwarded to her computer. And she will answer you herself, oh readers of little faith. Okay, I humbly admit that she has never threatened to deprive me of dessert, but I am sure that it is not the desire that is lacking. As for the continuation of her adventures, the Windows antichrist is still not connected to her network, she is currently getting acquainted with the purchasing policies of her research center as well as with the thousand and one possible configurations of a PC. Needless to say, she is at a loss. "It's so easy to order a Macintosh, how do you know what you need?" Come on mom, come on.

## ###ARTICLE\_START### ID:614

Last Tuesday, Paris should have inaugurated Linux Venture, the first major European fair for financing Linux start-ups and free software. Organized on the occasion of the Parisian Linux Expo trade show (164 companies present), this event should have presented about twenty young, cash-strapped companies to a gathering of investors. But, a few hours before the big day, the promoters of Linux Venture preferred to stop everything. "We did not gather enough good files. And we judged the mobilization of financiers to be insufficient," says Sacha Duna, organizer of the event. In fact, the selection committee was able to present only seven start-ups. As for the financiers, about fifty had registered while the organizers expected 200. In France, this lack of appetite from financiers for these companies is not new. The number of free software companies financed by "venture capitalists" can be counted on the fingers of one hand (see opposite). The characteristics of free software, these free products whose manufacturing secrets are given to everyone, are not called into question. On the contrary. The most famous of them, Linux, an operating system developed by the Finn Linus Torvald, increasingly appears as a competitor, still modest but very real, of the famous Windows from Microsoft. "We have not yet financed a Linux start-up," explains Jean-Marc Patouillaud, partner of the venture capital firm Partech. "It's a question of time. We believe today that the market is not yet sufficiently mature." Apax Partner is one of the rare venture capital firms to have already invested in two Linux companies, the German Suse and the American Linux Care. The American market is moreover more mature since two companies, Red Hat and VA Linux, have crossed the doors of the Nasdaq. The other handicap of these start-ups lies in their ability to generate turnover in the absence of income from operating licenses. "It is by developing services around the Linux operating system that these start-ups will develop turnover," explains Francis Pellegrino, president of the Linux Venture selection committee. The problem is that, culturally, many free software entrepreneurs are quite reluctant to adopt such strategies. "Most Linux company creators are still reasonable computer scientists or engineers who are passionate about development. There is a lack of sales profiles to invent models that generate turnover," notes Jean-Paul Smets, promoter of a free start-up cluster in Lorraine. But here again, minds are starting to change. Red Hat in the United States and MandrakeSoft in France generate turnover from the sale of CDs containing Linux software. And with the rise of Linux on the Internet, there is no doubt that new lucrative services will emerge.

## ###ARTICLE\_START### ID:615

"MandrakeSoft, forget that name, in six months, you won't hear about this company anymore," said Bob Young, CEO of the American company Red Hat, the world's number one Linux distribution company, a few months ago. Today, this young French start-up, which like Red Hat markets a version of the free software Linux adapted to the user, called Mandrake, has blatantly thwarted this forecast. Created a year ago, it expected to achieve a turnover of 3.5 million francs in 1999 and made the exceptional achievement of recording a profit, albeit still modest (300,000 francs). And above all, it has secured the support of venture capitalists (including the FCPI Axa Placement Innovation) to the tune of 4.25 million francs during two rounds of financing. Better still, in the United States, in certain distribution segments, the little "Frenchie" is outperforming the American giant: according to a survey by the publisher MacMillan conducted last July, MandrakeSoft, in a sample of representative points of sale, sold twice as many CD-ROMs as its competitor. Directed by Jacques Le Marois, formerly of Andersen Consulting, MandrakeSoft is the only French free software company at a sufficiently advanced stage of growth to be able to enter the Stock Exchange. But other companies are following in its footsteps. Founded by a 25-year-old Frenchman, Ismaël Ghalimi, but based in California since this summer, Ex-Office coordinates the development of certain Bull software and intends to specialize in free developments carried out at the request of companies. In September, it raised several million francs in seed capital from Ridge Ventures and Dassault Développement. Founded in October, Linbox, a company also under American law, but headed by Stéphane Fermigie, president of Aful (French-speaking Association of Linux and Free Software Users), is making a remarkable debut. Specializing in lightweight Linux computers (data and programs, accessible remotely, are stored on a centralized machine), the start-up has already obtained an order from schools in the city of Saint-Dié (Vosges) and is preparing a fundraising of around fifteen million francs.

## ###ARTICLE\_START### ID:616

Children's screams, magnificent multicoloured drawings posted everywhere; as promised, the columnist went to the Félix-Leclerc elementary school at the invitation of one of the teachers to see how computers are used there. In December, following my column on children, education and computers, many of you wrote to me to express your opinions and comments on the subject. Thank you again a thousand times. I love and adore reading your comments, whether you agree or not. Among the emails received, there was this little note from Réal Gingras, a teacher at the Félix-Leclerc school: "Your question [do teachers have all the tools to teach effectively?] is interesting but I would have added "free tools" to it. Why not come and visit the Félix-Leclerc school after January 15 to see what we are doing and see the status of the network that we have implemented? You will be amazed." How can you resist such a charming invitation? Félix-Leclerc School Located in the underprivileged Côte-des-Neiges neighbourhood, Félix-Leclerc School is a small microcosm of Montreal's urban fabric. More than 500 children from 50 cultural communities attend it daily. Led by a young man with avant-garde ideas, Robert Gendron, Félix-Leclerc School breathes life and we can see that the teachers have this pleasure in communicating and instilling the pleasure of learning in the little ones, which is all to their credit. It was with the announcement of the Marois Plan, which offered schools amounts of money to invest in new computers, that Félix-Leclerc School took the IT turn a few years ago. "Like many schools," says Robert Gendron, "we wondered how we were going to implement our computers here at Félix-Leclerc. We therefore had to decide for ourselves what we were going to do with these new tools. The experiments we are conducting here are not necessarily those being conducted in other schools in the CSDM network. "In the first stage, we decided to invest in computers, but also in the massive implementation of the network throughout the school. All classes at Félix-Leclerc had to be "networked," because we already had this vision that the future would be in them. Our first reflection, however, as in many schools, focused on two trends: specialization or democratization. Should we create computer labs with around thirty workstations in a class, or distribute them throughout all classes? At Félix-Leclerc, we decided to integrate computers into all classes as a new learning tool, just like books or pencils. So we dismantled the original laboratory to distribute the forty or so computers (Macintoshes) that the school has to all classes and chose democratization while setting ourselves a challenge: how can we integrate this new tool into everyday teaching? How can we ensure that teachers "get on board" with this new adventure? According to Clément Laberge, teacher and manager of the magnificent educational Internet portal, Infobourg, the strategy that the directors of the Félix-Leclerc school have chosen is without a doubt the best. "It is better to choose to integrate the computer as an everyday tool and to include it in normal school activities, than to confine it to a "ghetto", a laboratory where only a few teachers will impart knowledge. We see that integrating IT into this entire community called the school, which includes not only students but also teachers and management, is the ideal solution. In this way, everyone will really come out a winner." In collaboration with Réal Gingras and the entire teaching staff at Félix-Leclerc, Robert Gendron will measure the impact of this new direction at the end of each year, and, above all, he will ensure that he quickly adjusts the course in the event of a slight deviation. According to Robert Gendron, "we have no choice but to validate the results obtained in this way. They are our children and we must succeed in integrating IT into the school so that they do not become the illiterates of tomorrow, despite the limited means at our disposal. "Fortunately, thanks to special budgets that we have because of our status as a school in a disadvantaged area, we were able to have the support and assistance of a resource person, Réal Gingras, who allows us to do effective monitoring and help the staff in place achieve our objectives." Indeed, it is not really easy to integrate NTIC into everyday life, despite the goodwill of the team in place. For example, in talking with them, I learned that last year, there was only one technician assigned to the service for 21 schools. "Despite her competence and goodwill, we did not see her often during the year," says Réal Gingras. "She was totally overwhelmed. There is still a positive point to all of this: we had to make do with the means at hand and quickly learn lots of small practical details that are very useful to us today." But, between you and me, is this really normal? Fortunately, this year, a group of five technicians is providing the service and each takes care of five to six schools. "This allows us to have a technician visit regularly, to supplement Gingras. The time I used to spend on maintenance, I can now make available to teachers and students." Because the primary goal of Director Gendron and his team is for everyone to feel comfortable with these new tools and, above all, for everyone to participate actively. "It's not really a question of leaving children alone on the Internet, for example. We want teachers to be there alongside the children, for them to "have fun" as much as they do. It is with this in mind that we have chosen not to install filtering software here at Félix-Leclerc. The supervision of a teacher is without a doubt the best filter. And what's more, the Internet gives them a certain autonomy, because teachers are guides, only, not merciless censors." Of course, all this is well and good, but what about the children? I had the chance and the happiness to be able to talk freely with the children of two classes, one in 3rd grade and the other in 5th grade, to see if, in fact, the computer tool is used well. As you can imagine, the computer at school, for these children, is a real pleasure. Word processing, image processing software, Internet, all the tools fascinate them, and they quickly learn to master them and use them in their classes. I had a blast talking with them. One likes to write stories, another is passionate about the Internet; fortunately, there are also many resources for them. "We have several educational CD-ROMs that fascinate the children," says Gingras. "But there are also other projects on the Internet that interest them. The Infobourg site and its resources, the Village Prologue project, a site that allows teachers to integrate information and communication technologies into their teaching, by offering students a variety of activities that touch on the objectives of the study programs and several school subjects such as French, history, geography, mathematics, as well as the Les fruits du Baobab project. This one, and we are the first in Canada to participate in it, allows our students to get in touch and do projects with other children from Senegal, Mali, Burkina Faso, Togo, Ivory Coast and France. We also have, about once a week, a chat session with another school in Rouyn, in Abitibi." Yes, these young brats love computers and the Internet. Moreover, a third of the 150 students in grades 5 and 6 have access to a computer at home. "But mainly in English and under Windows," laments Réal Gingras, who I strongly suspect of succumbing to the charms of the Church of the Holy Apple. Here, everything is in French. The only place at Félix-Leclerc school where there is no system in French is in the English class, which is quite normal after all!" Despite the constraints, the next few years are still looking promising at Félix-Leclerc school. According to Réal Gingras, "we should soon receive computers, old 486s, which we will recycle to make Linux workstations, thanks to the help of the Polytechnique, which will introduce us to the world of open-source software." Because, as I haven't told you, one of the problems is access to software at a reasonable price. The Félix-Leclerc team does not have the means to acquire all the software they want. Being one of the first schools to adhere to the Linux philosophy, they will therefore be able to obtain for the time of a download many open-source software such as Star Office for example. The Internet is full of Linux finds. "We are confident in our students and teachers. We believe that we will succeed in making the IT shift at school successfully. It is not easy, there are still many challenges to overcome. We are currently in our last year of acquiring computer equipment, but before thinking about new computers, we will have to continue to think and work on the effective integration of these. We are now entering our project implementation phase, which is what we believe is most important at the moment. We also hope, one day, to be able to have the support of parents who are computer savvy and who would come and help and relay the teachers and the entire team in place. There is no shortage of projects. Just time and a little money." Note If you are a company that wants to renew its computer equipment, that you have software to donate, do not hesitate to make a good gesture and contact Robert Gendron, the school director. This one accepts all donations from individuals and companies like Nortel, which last year donated a dozen computers to the Félix-Leclerc school. Don't hesitate to invest in your children, they all deserve it, without exception. Dear Mom Drama in my mother's life. She, who in everyday life is an unconditional follower of the Church of the Holy Apple, announces to me almost in tears that the Antichrist will soon make his entrance at work: a Windows PC will soon be integrated into her network. "We have no choice, even if we manage to read all the PC files from our foreign correspondents without any problem, some specialized applications absolutely require a PC." But tell me, dear mother, don't you know Virtual PC, this software that allows you to emulate a Windows PC on your Mac? I'll spare you the details as it's not because she is a venerable and venerated person that she doesn't know her Mac applications. "I know Virtual PC anyway, who do you take me for? We tried it, but there are limits to what Virtual PC can do. Couldn't you sympathize with me instead? Especially since the head of our network has also just switched to Billy G's clan. Unworthy son! Hey, no dessert next time you come over." Damn!

## ###ARTICLE\_START### ID:617

The model, which advocates the gift economy, is enough to make business leaders bristle. However, free software is a very serious subject that mobilizes computer scientists, theorists, economists and lawyers around the notion of collective creation, collaborative network work and free of charge. Unlike programs sold commercially, these are "freely" distributed with their source code (their manufacturing secrets), so that anyone can copy, modify and use them as they see fit. A model often called "copyleft", as opposed to the copyright in force on "classic" software. "Copyleft is freedom against liberalism", says Antoine Moreau, artist and co-organizer of Copyleft Attitude, this weekend in Paris, an event that attempts to bring the art world and the planet closer to "Linuxians" (named after the most famous free software, the Linux operating system) (1). Because "the economy specific to art is an economy of giving, sharing and adding value to what has no price" and that, "without knowing it, many artistic practices participate in this spirit of copyleft", adds Antoine Moreau, undoubtedly one of the most active of the "web artists". This ugly word covers community practices born with the Internet, which ignore the notion of work, preferring unlimited communication, and claiming "the humility of artistic creation, since the masterpiece is the network". The "copyleft attitude" therefore exists, but it is hardly French at the moment... The Internet user will click on foreign sites, American, Dutch and German, which favor an interface without flashiness, following the ethics of the Net which requires maximum accessibility (plug-ins and other programs developed only for the latest computer models are excluded) (2), or subscribe to a few mailing lists and forums (3). The most addicted will go listen to Geert Lovink, media theorist, activist and member of Adilkno (the "Foundation for the Advancement of Illegal Knowledge"), interviewed by the California Institute of the Arts (Calarts) at the Museum of Contemporary Art in Los Angeles, on February 9 (4). Also read, on Archee, a Canadian electronic magazine dedicated to cyberculture, the astonishing interview with web artist Tilman Baumgärtel (5). (1) copyleft.tsx.org, on 21 (from 7 p.m. to 11 p.m.), 22 and 23/01 (from 3 p.m. to 7 p.m.), at Accès local, 15, rue Martel, 75 010, tel.: 01.47.70.12.00. "Potlatch" entrance: "You give something, you leave with something." (2) (www.syntac.net) (www.avic.org) (jodi.org) (0100101110101101.ORG)... (3) The Dutch mailing list (with English archives) "nettime" (www.nettime.org) or the discussion forum fr.rec.arts.plastiques, accessible from the browser. (4) www.calarts.edu/~ntntnt/ and, for the lucky ones who will be in Los Angeles on 9/02, 250 South Grand Avenue Downtown, LA. (5) archee.qc.ca/ar.php3?btn=texte&no=100

## ###ARTICLE\_START### ID:618

To learn Linux, configure it correctly or troubleshoot, the Web remains the only truly comprehensive source of information. We even wonder if the Linux phenomenon would be as widespread as it is without the resources available on the Internet, even if you sometimes have to search for a long time before finding the answer, and even if most of the good sites are in English. Here are a few that may guide beginners and interest others. www.linux-quebec.org/ Quebec Linux users have their own site, which includes a collection of links to other French-language sites dedicated to this operating system. www.savoirfairelinux.com/annuaire/ For its part, the Linux Directory of Quebec is a directory of all the professional resources, magazines, personal sites and all the events of the Linux phenomenon in the province. www.skyevents.com/FR/index.html Linux will even have its own show in Montreal. From April 10 to 12, at the Palais des Congrès, LinuxExpo 2000 Amériques is the first meeting of this first international crossroads of Linux and free software solutions. Conferences and product demonstrations are on the program. www.linuxjournal.com/ The Linux Journal site, one of the many magazines dedicated to Linux. Don't expect objective comments from them: they are 100% sold to the Linux cause, just as Mac or PC magazines are to their respective fields. With a hint of paranoia added. www.linuxworld.com/ A sort of rallying point for all Linux sites on the Internet, Linux World is full of links of all kinds; it's the right place to launch a search on one or another aspect of Linux. www.linuxapps.com/ A very complete directory of all applications for Linux, in several fields. With links to the authors' sites to download them. Updated daily. www.linux.org/ Linux Online has several texts for beginners.

## ###ARTICLE\_START### ID:619

The world's number one microprocessor manufacturer, the American Intel, announced yesterday the launch under its brand of a new generation of electronic devices allowing the general public to connect to the Internet. A large number of manufacturers have already taken a position on this booming market. Mobile phone manufacturers are all developing models that can be connected to the web. New digital decoders are allowing consumers to surf the Net via their television. And personal assistant specialists (such as 3Com with its Palm Pilot) are also connecting their machines to the web. Intel, for its part, is going to launch a "webphone", comparable to the one already marketed by the French Alcatel. Available in mid-2000, this new type of phone will have a screen, and its size "will be a little larger than that of the Minitel", explains Jean-Paul Colin, director of development at Intel France. Its cost price will be "equivalent to that of a low-end PC", or around 5,000 F. But its sale price will depend on the marketing model chosen by the various service providers (Internet access providers, traditional telephone operators or large distribution chains for example). Intel will also equip these devices with a range of services "intended to facilitate the use of the web by non-specialists", for example tools for finding one's way on the Internet, or unified messaging software for storing voice messages or e-mails. Finally, Intel will ensure the remote updating of these terminals, in order to adapt them as best as possible to the evolution of the web. The operating system (the central intelligence) of these terminals will be Linux, the free software originally developed by the Finnish Linus Torvalds. A snub for Microsoft, whose president, Bill Gates, announced last night the launch of the new version of its Windows CE software at the Consumer Electronic Show in Las Vegas. This software is specifically designed for these devices that are simpler than the PC. At Intel, they claim to "have no qualms". The choice of Linux was made at the request of potential customers, "who mostly asked for an open system, allowing maximum customization of the service", explains Jean-Paul Colin. In short: allowing "Galeries Lafayette" or "France Télécom" to be displayed when the machine is turned on rather than "Windows CE by Microsoft". The launch of these new devices marks a new step in Intel's new strategy. The giant no longer wants to be simply the "manufacturer of basic building blocks for the PC. It is now about taking full advantage of the explosion of the Internet", says Jean-Paul Colin. Last year, Intel already announced the establishment of gigantic data centers intended to host thousands of e-commerce sites. Yet Intel is not abandoning its core business: "This is in no way a confirmation of the idea of the death of the PC," explained Claude Leglise, president of Intel's consumer division, yesterday. But in a market that is now mature (50% of American homes have a PC), it is necessary to adapt to the new desires of users.

## ###ARTICLE\_START### ID:620

A new version of the StarOffice software has appeared for a few weeks. I told you about this office suite a year ago, then owned by a German firm. While the suite itself has not undergone any radical changes, its very existence has taken on strategic importance. Last August, the Californian firm Sun Microsystems acquired StarOffice with the aim of making it the centerpiece of a global strategy. On the surface, Sun has not changed anything in the original philosophy of StarOffice: the suite is still distributed free of charge (and offered in French) under the banner of the open-source movement dear to the Linux world. It can be downloaded from Sun's website (1) - be careful: 65 MB! - or delivered on compact disk by mail (for a handling fee of $9.95 and $39.95 for printed documentation). On the other hand, Sun's aims for StarOffice are more interesting. But first, a look at the suite itself. Just like the other one From the first use, it is obvious that StarOffice positions itself as the equivalent of Microsoft Office, but with a much more advantageous price (!). The kit includes pretty much the same major applications as MS Office: text editor, spreadsheet software (called workbook), database, presentation software, drawing module, etc.; with, of course, the now essential Internet tools such as e-mail, news reader, a Web browser and an FTP module. The various applications of StarOffice are more than decent and can suit the vast majority of users. Thus, the text editor has the classic functions such as tables, styles, macros, linguistic tools (corrector, thesaurus, hyphenation), insertion and activation of hyperlinks, etc. The workbook (worksheets) offers formulas, sheet layout, division of a work surface into several individual sheets, etc. All StarOffice applications can import documents created using Microsoft Office 2000 without a hitch. Added Values Not only is StarOffice the equal of Office 2000 in many ways, it also offers some enhancements of its own. Thus, all applications can call upon the Navigator, a small window that allows the user to move directly to the different parts of the document such as titles, tables, images, objects and even hyperlinks. Also, StarOffice offers very tight integration of the various applications. In fact, the kit takes the form of a series of small modules grafted around a single interface. And here Sun is directly attacking Windows itself: StarOffice offers an "Office" that is directly superimposed on that of Windows, including with an explorer and a "start" button! This entire management interface is based on the Internet, as evidenced by the "URL" location of files (or Web sites). StarOffice was clearly designed with the Net in mind. Finally, one last advantage, and not the least, is that StarOffice is just as "universal" as the Net. The kit offers support for several operating systems: Windows 95/98/NT, UNIX (Sun Solaris SPARC/x86), OS/2 Warp and Linux. Support for the latter, as you might expect, quickly elevated StarOffice to the rank of the main office application of the OpenSource/Linux community. Sun's real goal Here we are, then, in the presence of an "Internet" office kit, developed according to a modular approach and which, offered free of charge, embraces the philosophy of open source code. The goal of Sun, a great specialist in Internet servers, is to set up a new service where applications would no longer reside on client computers, but on Internet servers. Software would no longer be "sold", but rather offered for rental as a service. Subscribers could thus access the portions/modules they need from a simple browser, whether it is installed on a desktop computer or integrated into a simple small household appliance. Welcome to the world of software service providers (Application Service Providers). This is what Sun is proposing with its future StarPortal service: to inaugurate the era of "dot com" (Internet) software. Thus, the objective of Scott McNealy, the big boss at Sun, is to use Star Office to redefine the rules of the game in order to propose a new "grammar" and to set up a new revenue model for the industry. But above all, McNealy intends to have a new opportunity to try to outdo his great rival whom he has always loathed, Bill Gates. (1) http://www.sun.com/products/staroffice/get.cgi The author can be reached at: mondouxa@videotron.ca

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Group purchases The principle: allowing Internet users to buy at wholesale prices by grouping their purchase orders for the same product. The idea, born in the United States, is now applied in France, particularly on the sites Clust.com and Akabi.com. We are also seeing the proliferation of price comparison systems. Music distribution The MP3 fever has taken over France this year. Portals (Mptrois.com...) and download sites (Francemp3.com...) are proliferating. To date, music distribution is the sector that most directly disrupts the traditional economy: the product can be delivered directly to the customer's computer. Thematic portals In 1998, "portals" were all the rage, these entry sites to the network bringing together on their pages as many services as possible to retain Internet users and build an audience. This year, it's the turn of thematic portals for children (Kazibao.com), for parents (Magique Emilie), for newlyweds (Alafolie.com), for students (Icicampus.fr), for women (Aufeminin.com, Desfemmes.com)... In the pipeline for next year: men, pets, etc. Free software In the United States, companies that distribute free software such as Linux (an operating system designed by a community of volunteer programmers) are soaring on the stock market. In France, the first ones are appearing in this field, like Linbox, which sells computers equipped with free software.

## ###ARTICLE\_START### ID:622

"To sell more, let's not sell": this could be the strategy of a growing number of companies on the Internet. The latest example, Qualcomm, the publisher of the Eudora e-mail software, announced Thursday that the next version of the product, scheduled for the first quarter of 2000, would be free. Qualcomm is not giving up on making money, however: it is simply asking Internet users to accept the presence of a small advertising window that it promises will be discreet. Ad-phobic users will be able to opt for a paid version or a lighter version, the most widely used to date, of the software. Free services are spreading. In all sectors linked to the Internet, we are seeing a proliferation of free offers, supported by advertising or e-commerce: initially, these were access to web pages, then navigation software. This was followed by offers of free network access, and even microcomputers... Qualcomm is not the first to convert paid software into free software: at the end of August, the computer manufacturer Sun Microsystems announced the acquisition of the software publisher Star Office and the free distribution, on the Internet, of its office software (word processing, spreadsheets, etc.). For Microsoft, whose main revenue comes from program user licenses, Star Office constitutes a serious threat. According to its users, Sun's software is a product that rivals Office, the office software suite from Bill Gates' firm, both in terms of richness and ease of use (1). However, Star Office is free; Office costs around $399 (2,590 francs) in the United States. In the long term, Sun plans to offer the use of its software directly on the Web, without having to download it. And to continue to rake in revenue through advertising and technical assistance. For Microsoft, the threat of free software is twofold: on another front, the phenomenon of free software is developing at full speed, first and foremost the Linux operating system. Introduced on the stock market on December 9, the small Californian company VA Linux Systems, which sells computers equipped with the Linux operating system, broke the record for the largest increase during the first day of trading (+698%, an eightfold increase in the initial public offering price). The share price of Red Hat, the main Linux distributor, has increased sevenfold since its IPO on August 11. Its market capitalization has surpassed that of Apple. These increases show the insatiable appetite of investors for companies that have a more or less close relationship with Linux. Beyond that, they demonstrate the growing interest in the free software model, characterized by the free circulation of products and their manufacturing secrets. This model is driven by a community of programmers who participate voluntarily in the development of products and their improvement. Cybercommunism. Some see in this the beginnings of an economy based on gifts, which would be brought to extend to other areas. In Cybercommunism, a recent pamphlet distributed on the Net (2), an English professor, Richard Barbrook, observes that the creators of free software are in the process of "supplanting capitalism". Nothing less. The members of this community would build a new form of exchange that would defy the laws of the market. "On the Internet, working together by circulating gifts has become a daily experience for millions of people. As they do in their work, they collaborate on collective projects in their free time. Freed from the immediate discipline of the market, work can become a gift." The simple participation in a discussion group would be the expression of a gift of information. Subversion of capitalism. Richard Barbrook observes that Karl Marx himself had predicted that "sooner or later, the development of the productive forces would democratize the relations of production". It is the success of capitalism that would lead to the emergence of an infrastructure (the Internet) that would subvert it. The prophecy is debated in the Linux community. It is that, behind the shadowy programmers, companies charge customers by selling hardware or complementary services. And these companies are the new darlings of Wall Street... Without going so far as to imagine a new economic system, Gabriel Dabi-Schwebel, a consultant at Alcatel, believes that, thanks to the Internet, we can "get rich by giving". It is that "value is no longer in matter but in information and information is not a rare resource. As a result, "if the price represents scarcity, the optimum between supply and demand, it was, in the traditional economy, normal to pay to buy a good that we needed, normal to pay someone who worked. Today, one should rather be paid to buy and pay to work." (1) Star Office can be downloaded free of charge from the Internet, but weighs 65 MB. A version on CD-Rom is available for $39.95, or 259 francs. (2) www.nettime.org/nettime.w3archive/199909/msg00046.html

## ###ARTICLE\_START### ID:623

Toronto - Shares of Canadian software company Corel Corp., buoyed by Internet buzz about its Linux products and rumors that it is a takeover target, gave investors a run for their money yesterday. The stock started the day strong and continued to accelerate throughout the session. Shares of the Ottawa-based company hit a high of $40.95 shortly after noon on the Toronto Stock Exchange, a gain of 97%, before ending the day at $30.40, up $9.65 on a 46.5% increase. Trading was brisk on the Nasdaq, with the stock rising $6-3/4 to $20-7/8 on volume of 57.6 million shares. The rumor mill was in full swing yesterday with speculation that U.S. firm Red Hat Inc. is considering Corel as a potential acquisition target, analysts said. Corel spokeswoman Stefania Allevato dismissed the rumors as pure speculation, saying they originated in a Nov. 26 article in Interactive Week magazine. Red Hat declined to comment on the rumors. Linux is a free (open-source) operating system that, with 10 million to 12 million users, competes with Microsoft's dominant Windows NT system. Rumors "Corel is riding high on rumors of a potential takeover," said one stock investor. Tera Capital Corp. fund manager Duncan Stewart noted rumors that Red Hat might consider buying Corel, but said he was loathe to give too much credence to the rumors. "I've heard Red Hat might buy Corel." He said it was not impossible, given that Red Hat has been criticized for its weak distribution network - something Corel could offer. Corel launched a desktop version of its Linux operating system at the Comdex computer trade show in Las Vegas on Nov. 15. Red Hat shares were up $23-1/8 to $236-5/8 on the Nasdaq on Monday, after hitting a 52-week high of $249 earlier. Red Hat shares jumped after the company announced a deal to provide technical and consulting services to auto parts retailer AutoZone Inc., which wants to install a Linux terminal in each of its 2,800 stores. Corel announced a new version of its WordPerfect software on Monday, but there was no other news to fuel such a surge in the market, Stefania Allevato said. "We attribute this to Linux since Red Hat is also up," she said. ($1 US, $1.47 Canadian)

## ###ARTICLE\_START### ID:624

Toronto - Shares of Canadian software company Corel soared yesterday afternoon, buoyed by Internet buzz about its Linux products and rumors that it is a takeover target. Shares of the Ottawa-based company hit a high of $40.95 shortly after noon on the Toronto Stock Exchange, a 97 per cent gain, before falling back to $29.50, up $8.75 at the open. The rumor mill was in full swing yesterday with speculation that U.S. firm Red Hat is eyeing Corel as a potential takeover target, analysts said. Linux is an open-source operating system that, with 10 million to 12 million users, competes with Microsoft's market-leading Windows NT. "Corel is up sharply on rumors of a potential takeover," one stock investor said. Tera Capital Corp. fund manager Duncan Stewart noted rumors that Red Hat might consider buying Corel, but said he was loathe to give too much credence to the rumor. "I've heard Red Hat might buy Corel." He said it's not out of the question, given that Red Hat has been criticized for its weak distribution network - something Corel could offer. Corel launched a desktop version of its Linux operating system at the Comdex computer trade show in Las Vegas on Nov. 15. Red Hat's stock rose $32 to $245-1/2 on the Nasdaq yesterday, after hitting a 52-week high of $249 earlier. Red Hat shares jumped after the company announced a deal to provide technical and consulting services to auto parts retailer AutoZone. The company wants to install a Linux terminal in each of its 2,800 stores. Corel announced a new version of its WordPerfect software yesterday, but didn't release any other news that could fuel such a surge in the markets, spokeswoman Stefania Allevato said. "We attribute this to Linux since Red Hat is also up," she said.

## ###ARTICLE\_START### ID:625

Have you thought about it? In computing, there is not only software and gadgets, there are also books that can be offered as gifts. Here are some book suggestions, some specialized, others that can be offered to any maniac. HTML 4 Master the language of the Web from A to Z Micro-Application Both the expert and the beginner will appreciate the great qualities of this reference book covering all the mysteries of the HTML programming language, the basis of the World Wide Web. Offered with a practical CD-ROM, HTML 4. Master the language of the Web from A to Z is intended to be a bible to be carefully classified. The Cathedral & the Bazaar Musings on Linux and OpenSource by an Accidental Revolutionary Eric S. Raymond O'Reilly Editions To understand the open source software movement, you absolutely must read this collection of manifestos by the thinker Eric S. Raymond. A great book that combines analysis and reflections. The Ramat of TypographyThe Ramat of Typography is intended for anyone who writes or lays out texts on a computer. All the rules of typography are gathered in this practically indispensable book. A space (yes, it's feminine) or two spaces after the period in a sentence? The Ramat will tell you. This one covers both English and French typography. The Quick Start Guide Search Engines for the Web Alfred and Emily Glossbrenner For anyone who regularly does research, or for any firm that does "SEO" of websites, this book is intended to be practically indispensable. To understand how search engines work, their different syntaxes, the different operators used. Covers AltaVista; Excite; HotBot; Infoseek; LYCOS; Yahoo!; Voilà; Nomade; Francité; Deja News and several other French and English-speaking engines. Build your custom PC! R. Schlegel and H.-J. Herder Micro-Application So, you've decided to save money and you're going to assemble your own computer. Unless you want to assemble the ultimate computer. For the maniac in you, here is the reference book that has been teaching you how to assemble a PC without making mistakes for years. A host of practical advice plus a CD-ROM containing practical utilities for diagnosing and maintaining your hardware in good working order. Create spectacular WEB sites David Siegel Reynald Goulet Editions Let's say it straight away, David Siegel is my guru, and if there was only one book to acquire to help create websites, it would undoubtedly be the only one I would take to a desert island. Quebec's Reynald Goulet Editions have pulled off a coup by obtaining the adaptation and localization rights for this book, the bible for anyone creating websites. Essential.

## ###ARTICLE\_START### ID:626

Force the use of "free" software (i.e. open, modifiable and generally free software) in the administration: this is the provocative bill proposed by three right-wing senators, Pierre Laffitte, Guy-Pierre Cabanel (RDSE) and René Trégouët (RPR). The stated aim of the operation: to raise awareness of the risks of the omnipresence of Microsoft software. The senators' concerns match those of the American justice system. "Administrations and Internet users depend on a single operating system," explains René Trégouët. "It is not good for a nation to make its public acts and the relations between its administrations dependent on the goodwill of a company." The RPR senator insists on confidentiality issues: "We have become aware that there could be surveillance means in certain software. But we do not know them, since we cannot have access to the "source code"." In other words, the recipe for manufacturing software. Unlike so-called "proprietary" software, free software is characterized by the unhindered circulation of its source code. Anyone can therefore amend the software, improve it or adapt it to their needs. The bill aims to introduce this possibility for all software used by the administration. In France, a very active community defends the use of free software, particularly Linux, an operating system known to be more reliable and stable than Windows, Microsoft's flagship product. Another advantage: Linux is free. "It saves us several million francs in licensing fees," says René Trégouët, who is launching a "knowledge access platform" running on Linux in his Rhône constituency. One of the goals of the bill is to ban proprietary formats in public communication; for example, documents offered for download in Word that require you to have the appropriate software, which is expensive and particularly memory-hungry. "A ten-line letter that weighs 2 KB can be transformed into a 200 KB file when converted to Word format," notes Stéfane Fermigier, president of Aful (French-speaking association of Linux and free software users), for whom storing documents in other formats would save considerable space on machines. At Microsoft, the bill is considered "rather bizarre." "It was never in the mind of the legislator to force the hand in the use of this or that product, believes Olivier Ezratty, director of marketing and communication at Microsoft France. Complaints about the functionalities of our products often come from a lack of knowledge of their functionalities." Thus, it is possible with the software of the Office 2000 office suite (Word...) to configure the default saving format; for example, to set it to HTML (open standard) instead of Word (proprietary format). Olivier Ezratty also says he is ready to study making the source code of Microsoft products available to "technically independent authorities on a government mission". This is already the case, he specifies, with Windows NT, for which several research laboratories have the source code. However, "the role of the administration is not to modify the source code of a software. Rather than establishing a law, it is better to suggest to publishers that they develop the software according to needs". The senators have sparked a debate on the Web, launched in September (1). Nearly 1,000 contributions have been received. René Trégouët assures that this consultation will result, within three weeks, in a new version of the text that will be submitted to Parliament. (1) www.senat.fr/grp/rdse/page/forum/index.htm

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Judge Jackson did not formally establish Microsoft's guilt on Friday. His preliminary conclusions, however, strongly suggest a verdict against the firm in early 2000. From there, two scenarios are possible: Microsoft, anticipating an unfavorable decision, seeks an amicable settlement. Or decides, on the contrary, to go all the way with the legal battle by appealing after the verdict. This would ensue, according to estimates, some two additional years of proceedings before the Supreme Court makes a final decision. A brief review of the possible outcomes, from the most plausible to the most outlandish. Bill Gates reaches an agreement with the government. By declaring that he was determined to seek a "fair and responsible" solution to this affair (read above), Bill Gates seems to favor an amicable agreement. Microsoft is fined. But its cash flow is such that this verdict would be painless. The Seattle firm is forced to modify its business practices to bring them into compliance with the law. One idea would be to force the company to disclose its pricing policy with computer manufacturers. The structure of the company is changed. The AT&T precedent suggests a breakup of the company. For AT&T, this gave rise to the "Baby Bells", so this time we are already talking about the "Baby Bills". The most widespread idea: to create an autonomous entity specializing in operating systems. Microsoft is condemned to make Windows a free software, distributed for free and transformable by users, like Linux. From then on, competitors would fight on equal terms to develop other software (browsers, word processors, etc.). Microsoft is nationalized. This is the proposal of John Dvorak, columnist at PC Magazine. He sees the nationalization of the company as the only way to prevent Microsoft's unfair practices. "Windows became a commodity that the government should control," he wrote. "The gas and electricity companies, originally private, were regulated and nationalized for the good of the country."

## ###ARTICLE\_START### ID:628

The columnist talks about sexy topics like microprocessors, Alternative Linux and a guru celebrating a mass in praise of free software. When Gordon Moore and his Intel acolytes invented the microprocessor, did they suspect that they were going to trigger a revolution that is still ongoing today? The microprocessor, the brain of a computer, this component is the subject of many huge investments by manufacturers like Intel, Motorola, Cyrix or AMD. Announcements of increasingly powerful and complex chips are multiplying, to the point that a short email from Gilles Trudeau asking me to take stock of the different microprocessors seemed like a good opportunity to talk to you and take stock of the chips available and those to come. For years, on the PC side, there was only Intel. Microsoft and Intel worked hand in hand and it seemed that the collaboration of these two giants would be difficult to shake. However, there are now some very interesting alternatives to the chips developed by Intel. Is it necessary to present the first generation Pentium chip? Available in speeds from 60 to 233 MHz, this chip is generally no longer sold in consumer computers, except for its latest manufactured version, the 233 MMX. There are still a few (rare) American resellers who sell computers at very low prices with this chip. My advice? Even at prices that defy all competition, don't touch it. You will find, for a few dollars more, devilishly more powerful computers with the second generation Pentium chips, Pentium II. This is a chip that has enabled interesting advances for the world of multimedia and PC games. With the Pentium II, developers finally found a chip that could allow them to fully exploit sound and video. Real power was there, finally available. Offered at speeds from 233 MHz to 450 MHz, the Pentium II chip is aging well. Pentium II computers can still be found at bargain prices, and for those who want to play a few games, use office suites, or surf the Internet on a tight budget, Pentium II-based personal computers are a great choice. Intel also produced a high-end Pentium II chip for workstations and servers, called XEON. Unless there is a great deal, it is not worth shelling out the extra few dollars for this chip in a personal computer. While the Pentium II was launched at a high price, users who could not afford the technology also demanded this power. Intel decided to develop a chip that was less "refined" than its high-end model, the Pentium Celeron. A total flop in its first release, Celeron was fortunately revised and corrected by Intel. Reaching speeds of 500 MHz, the Celeron is today, for many manufacturers, the entry-level chip and also, in its "mobile" version, the heart of many laptops. Ideal for playing all the new games requiring power, Celeron computers are without a doubt the perfect machines for the vast majority of consumers. Don't hesitate for 30 seconds, if you are considering a Celeron-based computer, the 500 MHz chip should be your choice. You will thus be able to keep your computer for several years without too much fear of seeing it quickly become outdated. Today, Intel's new power monster is called Pentium III (how original, right?). Available in three versions, regular, high-end (XEON) and a "mobile" version for laptops, the Pentium III is a real glutton that will quickly "digest" any application, whether games or digital processing applications such as Photoshop, SoftImage or Sound Forge. Available at a high price, Pentium III is only just beginning its life and many improvements are expected. For example, industry observers are eagerly awaiting a new version called Coppermine, a very high-end chip promising to make life difficult for the fastest and most powerful chip of the moment, the AMD Athlon. Yes, there are other chip manufacturers for PCs, besides Intel, and AMD is probably the one that warms Intel's butt the most. After launching its AMD K6-II chips, a clone of the Pentium II, and the AMD K6-III, an equivalent of the Pentium III, AMD was finally able to beat Intel in the game of extraordinary performance with its Athlon microprocessor, also known by the sexy name of K7. Containing more than 22 million transistors, the AMD Athlon is today the reference when it comes to extreme power for a PC. 100% compatible or almost with all current operating systems, AMD chips offer a significant advantage for the consumer: the price. Offered less expensively to manufacturers, they can therefore offer computers of equivalent or superior power to Intel chips, at much lower costs. And for all those who wonder if an AMD chip is compatible with Windows or any other operating system, know that one of my PCs, with Windows 98, Windows 2000 and Linux installed, runs without any problem with an AMD K6-III. An excellent price-quality ratio. But the future is coming fast. In the year 2000, if all goes well, Intel should relaunch the war with AMD with its new Itanium chip, also known under the code name Merce. Abandoning the 32-bit architecture of its predecessors, the Itanium chip will be Intel's first to be based on a 64-bit platform, a radical break that will require, for applications to take full advantage of it, a rewriting of many operating systems. But we won't talk about that again for a few months. - Intel: www.intel.com - AMD: www.amd.com Alternative Linux: a review Last week, the Alternative Linux conferences took place. A success, according to the organizers. While they were hoping to bring together at most 300 people from the Linux community, more than 550 people, according to Robert Cajolet, one of the organizers, showed up at the Bonaventure Hotel and the CRIM during these three days. This may not seem like much, but, according to Cajolet, "it fully satisfies us because we wanted, for this first edition, to reach the core of Linux developers in Quebec. This conference was aimed at them first, we wanted to develop and stimulate the Linux community in Quebec and that of Montreal." Having spoken with developers present, all were indeed very satisfied with these three days where many speakers came to present the latest technological advances in the GNU/Linux operating system as well as the latest applications and utilities running under Linux. The presentation of the KDE 2.0 environment and the upcoming Corel distribution were among the highlights of these conferences. Obviously, the two most anticipated conferences were those of Eric S. Raymond and especially that of Richard Stallman. While other conferences were limited to the technical side, Stallman's conference resembled a mass, with his apostles coming to commune at the altar of the free software movement. He took advantage of the presence of converts to preach in favor of free software and to avoid "contaminating" one's hard drive by installing proprietary software. To give you an idea of Stallman's "purity", he refuses to use the Netscape browser, although it is free, because it is not free, that is to say that the source code is not available to all. "The next version, Mozilla, or Netscape 5, will find favor in my eyes," Stallman said, "because this version will be free, its source code being already available, which is not the case for previous versions." I tell you, a diehard. He took the opportunity to reestablish the facts. According to Stallman, the Linux operating system should be called the GNU/Linux system. Indeed, although Linus Thorvald created the central kernel of Linux, the vast majority of the other components of the operating system come from the GNU project, hence, according to him, the obligation to call Linux GNU/Linux. The organizers of the Alternative Linux conference, Camelot-Info, 8D Technologies and CRIM, are already preparing next year's conference, which will also have to address the developer community. A great success. - Alternative Linux: www.alternativelinux.com - Mozilla: www.mozilla.org - Linux: www.linux.org - GNU: www.gnu.org - KDE: www.kde.org - Corel Linux: www.linux.corel.com

## ###ARTICLE\_START### ID:629

With the proliferation of sites of all kinds on the Internet, searching, and especially finding the right information has become a complex task. Of course, a bit of common sense and knowledge of search engine syntax help a lot. But Copernic 2000, a tool made here in Quebec, can greatly help Internet users find the needle in the haystack. The last week has been full of emotions for the executives of the Copernic firm. Following a news story launched by the netmag Multimédium two weeks ago, reporting discussions between Copernic and Microsoft, the Journal de Montréal and the Journal de Québec picked up the news (without citing their original source) by loudly stating that the deal was in the bag and that Copernic's friends had become henchmen of Uncle Bill. That was all it took for the electronic media to seize the news and in no time, seek to interview these new millionaires "à la Softimage". But fear not, dear readers, Copernic is still a very local firm. The next few weeks will see our little geniuses form an alliance with "a major Internet audio-video firm." Of course, if you can read between the lines, you will have surely guessed that it is, in all likelihood, RealAudio. How will this agreement take shape? We will surely find out in the coming weeks. But let's leave gossip aside and instead talk about Copernic's latest product, namely the Copernic 2000 meta-search software. Many of our readers already use this software, starting with Minister Cliche himself. Others have tried to copy Copernic in recent years, such as Symantec, but none have been able to dislodge Copernic from its throne. The latest version of Copernic is now available in three versions: Copernic 2000, the free version that lets you search through 55 different search engines, grouped into six domains; Copernic 2000 Plus, the equivalent of what Copernic 99 was, 32 different domains grouping more than 250 different search engines; and the innovative Copernic 2000 Pro, grouping all the features of Copernic 2000 Plus, in addition to offering an interface that lets you program automated searches that will deliver search results by email at regular intervals. But to take advantage of these advanced functions, you must have Internet Explorer 4.0 and higher installed on your computer. You can purchase the Plus and Pro versions of Copernic 2000 from your favorite retailer, or directly on the Internet, on the Copernic site. The free version is still available on the Internet. Because for the vast majority of applications today, installation is a charm and apart from a small icon that appears on the desktop, nothing appears. For more "corporate" users who work in a company where there is a firewall, know that Copernic works very well through it, as long as you configure the proxy server parameters. Aside from a revamped interface, nothing has changed in the use of Copernic. A notable improvement, new operators are now available: in addition to "And", "Or" and "Not", it is possible to use adjacency operators such as "Near", which greatly facilitates the work of a professional researcher who will thus be able to more easily eliminate the "noise" of search engines. Introduced in version 99, it is still possible to update the software as well as the different categories automatically via the Internet. I would like, however, one day, for Copernic to be able to provide developers or maniacs like me with a "development kit" to allow them to create and add their own categories with their own search engines. Let's cross our fingers that this will happen one day. In short, there is only good in this new version of Copernic; the only criticism I could make is obviously the absence of a Macintosh version. But hey, at the same time, they now have Sherlock II in the new MacOS 9. Alternative Linux, it's today I slipped you a word last week about the Alternative Linux conference, which starts today at the Bonaventure Hotel. For adventurous spirits who want to get to know the main players in the OpenSource movement and, especially, Linux, this operating system that seems to disturb Microsoft more and more, here is finally the opportunity you were waiting for. Eric Raymond, Richard Stallman, Michel Dagenais and all the rest will be there to share their dreams and passions with you. A must. Today, tomorrow and Wednesday. And, of course, we'll talk about it again. http://www.alternativelinux.com IBM ThinkPad Even if many disciples of the Church of the Holy Apple will want to argue with me for hours about the beauty of the iBook, for my part, I find that the most beautiful laptops are on the IBM side. They are beautiful, they are thin, they are black and, above all, they are powerful. For example, last week, IBM offered a new range of Thinkpad laptops that are not bad. The new Thinkpad 600X, 390X and 240 are quite representative of IBM's revival in recent years. Take the 600X: equipped with a 450 or 500 MHz Pentium III processor and a 100 MHz bus, it stands out for its sleek lines and thinness. A powerhouse in a small format. The 390X is truly a replacement for a desktop computer: Pentium III processor, 14-inch screen, integrated CD player, V90 56k modem and 12 gigabyte hard drive, I know many journalists and freelancers who would do base things to have one. Mail from the rotule "Pentium III, Celeron, Athlon, AMD, Power PC, I don't understand a thing," Gilles Trudeau told me in a letter received this week. "Could you explain to me what this is all about?" With pleasure, Mr. Trudeau. How about next week? We'll take stock of the development of new microprocessors. Ding! Ding! It's the virtual postwoman. An email bordering on the courtesy of an insulted reader that we were featuring Windows 2000 in last week's column. "Why talk about this trash that will be Windows 2000?" asks Mr. Guertin. I'll spare you the other epithets. You know, dear Mr. Guertin, I have long since finished the religious wars on the merits of one operating system over another. If the software you need to use is only available under Windows NT, then NT is what you need. Same thing for MacOS, Linux or even the defunct Amiga, which we are trying to resurrect. So, call me a sellout to Uncle Bill, a drinking buddy of Steve Jobs or a Scrabble partner of Linus Thorvald, I admit that it doesn't bother me at all. All operating systems have their merits. And my regards to your mother. Mine greets you well.

## ###ARTICLE\_START### ID:630

Are you against the excesses of a world constantly governed by commercial imperatives alone? Are you tired of seeing your "old" computers, which were cutting-edge just two years ago, heading towards obsolescence, because new software is more "power-hungry"? Do you want software that faithfully meets the needs and expectations of its users? Do you think that Microsoft occupies too much space on the computer scene? If you answered "yes" to these questions, there is a good chance that you will adhere to the spirit that drives the Linux world. Freedom at the wheel In the early 90s, a young Finn started tinkering, out of personal interest, with an operating system. A year after starting his work, Linux Torvalds made his operating system public: Linux was officially born. Being a supporter of the "open source" philosophy, Torvalds did not take an operating license on his product, preferring instead to entrust its development to the large international community of programmers. The origins of the "open source" movement can be traced back to 1983, with the founding of the FreeSoftware Foundation by Richard Stallman. The idea behind the FSF was not to make software "free", but to give users of software the full freedom to modify and distribute it as they wish. This does not prevent an individual or company from imposing fees for packaging and distribution (software on CD offered in a box, for example). This "philosophical" movement is based on two main premises: all software can be distributed - as well as the right to redistribute it - for free, and the source code must be distributed with the product, in order to allow modification. Following the publication of Eric Raymond's famous (and relevant) article (The Cathedral and the Bazaar), the movement adopted another name to define itself: open source. The whole edifice is based on the concept that by being modified and widely distributed, software can flourish by meeting the real needs of the community. (Which is paraphrased by Raymond's maxim "A good programmer knows how to write; a great programmer knows how to rewrite".) Linux is a perfect example of this philosophy: it is composed of different parts of the GNU operating system and a memory-resident module (kernel) created by Torvalds. Anti-Microsoft and more Linux is therefore eminently subversive. It is not surprising that it takes issue with the established order, which is currently dominated by Microsoft. Over the last 18 months, the Linux movement has grown, with several hardware and software manufacturers publicly endorsing it (IBM, Compaq, ATI, Corel, etc.). The Linux "coalition" is a surprising grouping. Some are ardent promoters of the open-source philosophy. Others subscribe to it in a fight to the finish against Microsoft. Some, ousted from the market by the Redmond giant, see it as a new market to exploit, without really adhering to the philosophy of the movement. It will also be interesting to see how all these people will manage to get along, which is undoubtedly one of the main challenges for Linux's growth. One for all, all for one? Even with the wind in its sails, this does not necessarily mean that Linux is for everyone. This operating system is still "techno", although it should be noted that recent graphical interface modules (GNOME, KDE) have greatly facilitated things. It is more than likely that it is only a matter of time before Linux becomes user-friendly to the point of nurturing pretensions among the less specialized public. Another obstacle to the adoption of Linux that is diminishing day by day: the lack of applications. Several manufacturers are starting to offer applications for Linux, including Applix, Star Office and Corel. For now, however, Linux is at home in the server world, where its robustness - and its lack of price! - make it attractive. So, instead of simply recycling an "old" Pentium 75 or 486X computer into a post-modern flower box, it is possible to reconfigure it under Linux so that it acts as a gatekeeper. Nothing is lost, everything is created. Alternative Linux in Montreal On November 1, 2 and 3, at the Bonaventure Hotel (not the Place, but the hotel), will take place L'Alternative Linux, organized by the consulting firm 8D, which specializes in Linux services. It will be a large gathering of enthusiasts, manufacturers and interesting guests. Eric Raymond and Richard Stallman are among the speakers. For more information, point your browser to www.alternativelinux.org or to 514-994-2645.

## ###ARTICLE\_START### ID:631

Take a pinch of Windows 2000, add a bit of Linux, sprinkle with a few utilities and enhance with a few little gossips and you will have the recipe for this week's column. Because we publish our recipes. Paper and Internet. Not like Pinard, that! So let's talk a little about Uncle Bill's trinkets, namely the next version of Microsoft's high-end operating system, Windows 2000, formerly known under the sexy term of Windows NT. To say that this OS is anticipated would be an understatement. But, once again, the buddies from Redmond have postponed the release of this operating system. In the meantime, since we were able to get our hands on an RC2 (release candidate 2) version, which will be followed by an RC3, let's take a look at what awaits future Windows 2000 users. I chose to focus on the professional version and not the server version, because I was curious to see how a normal user would get on with this OS and not Microsoft's other operating system, Windows 98. Why switch to NT? Because this OS is supposed to be much more stable and robust than this giant with feet of clay that is Windows 98. Even MacOS is now much more stable than Win98. But be careful, Windows 2000 is serious, it is not an operating system to play NHL 2000. The target user is the business person or the professional. For gaming, the fact remains that Win98, despite its weaknesses, is still the operating system of choice. Come on, let's insert the CD-ROM into the player and wait and see what happens. Because to install Windows 2000, you need to plan on a minimum of one hour. And between you and me, calculate a good two hours the first time. Dear readers, this operating system is mammoth. For a single-user installation, you need more than 650 megabytes of free space on your hard drive. Phew! And what about hardware requirements other than the hard drive? Although you are told that a Pentium 133 and 64 megabytes of RAM are sufficient to run Windows 2000, believe me, at least a Pentium II and 128 megabytes of RAM, prepare yourself to experience great slowness. On my Pentium 200 without the Powerleap update, and with 64 megabytes of RAM, it's lightning fast (like a snail). So let's put the Powerleap back. Obviously, as you can imagine, the performance gain is significant. Definitely, a Pentium II at least. The installation is a charm, it's long but well done. Throughout it, wizards are there to guide you in your choices. There's really no way to go wrong, on that, Linux still has some crusts to eat. But let's admit that the new Caldera distributions and the Corel beta are exemplary. Lucky me, my sound card, my CD-ROM drive and all my peripherals were recognized without any problem by Windows 2000. Since this operating system is designed for serious people and business applications, I decided to install the Office 2000 suite, Visio 5, and the Corel Draw 9.0 suite. For two weeks, I have been using this workstation to connect to the Net, write a few texts and tinker with images, and I never close it. Believe it or not, but not once in two weeks has my computer crashed. Word, Excel or any application in the Office suite runs without any unfortunate incident. It is solid as a rock. I tried to crash it, but nothing worked. The only time I managed to crash an application (Netscape), only this one closed, without taking the operating system down with it. I have not had to restart Windows 2000 and since then, I have continued to work with this OS without any problems. My very summary conclusions are that although Windows 2000 is, in appearance, a very solid and stable operating system, I have serious questions about the relevance of upgrading from NT 4.0 to 2000. I dare not imagine the hardware upgrade costs that companies will face if they decide to move to Windows 2000. Additional RAM, disk space, and even a microprocessor upgrade, the step will be high to access the holy of holies of Microsoft. And there you have it! A little question that often comes up in discussion forums: how to install a Zip drive, from Iomega, under Linux? Calm down, readers, I will not start to give you all the instructions here, on this page. Let me instead send you to visit some Internet sites describing in great detail the procedure, both for a SCSI and IDE Zip. And here are the solutions: David Campbell's page http://www.torque.net/~campbell/ Zip Drive mini-HOWTO http://njtcom.com/dansie/zip-drive.html And my greetings to your mother. Linux Directory In the meantime, the friendly French people at Savoir Faire Linux are offering the community a great little directory in French of the resources available for Linux, with a particular emphasis on those available here in Quebec. That's good, sir. Savoir Faire Linux http://savoirfairelinux.com/annuaire/ Mark your calendars, ladies and gentlemen! The coming weeks and months will be full of events of all kinds for the Linux community. November 1, 2 and 3 are the big meeting of the Montreal community with the gurus of the OpenSource movement. Richard Stallman (who speaks very good French), Eric S. Raymond, Mike Shaver of Mozilla and many other speakers will be here in Montreal to present their work, their vision, their thinking. In parallel with the conferences, a workshop component will offer participants the opportunity to update their knowledge and explore the use of certain tools. Organized by Camelot-Info, 8D Technologies and CRIM, this event is likely to leave a strong mark on the annals of the Linux community here. Obviously, we will be there to cover the event. Alternative Linux http://www.alternativelinux.com/ Similarly, as we enter the second millennium, the big Linux Expo will take place on April 10, 11 and 12 at the Palais des Congrès. On the program: workshops, speakers and an exhibition floor where visitors will be able to see the latest Linux innovations first hand. Move your little fingers on your mouse to the following address: Linux Expo http://www.alternativelinux.com/ TuKids, the virtual sandbox for parents and children Parents, you are probably wondering where to find free applications or shareware for your children on the Internet. A little gem of a site has just been brought to my attention (thank you, Mr. Tessier). It is the Tukids site, a specialized directory of applications of all kinds divided into Macintosh or Windows zones. Zones for children aged two to four, five to eight and nine to twelve have been created, allowing a more efficient choice for parents and children. We visit the virtual sandbox at the following address: Tukids http://canada.tukids.tucows.com/index.html

## ###ARTICLE\_START### ID:632

The columnist talks about men and books instead of talking about MHz and pixels, but still finds a way to rave about a video card. You can't change your ways. While talking a little bit about Linux. But you like that. I met a maniac. Yes! Yes! And what's more, I'm sure that this passionate madman is delighted (like the bison) to be called that. Robert Cajolet, the friendly owner of the Camelot-Info store, because that's who we're talking about, is a retired man. Well, he must have been retired. On his desk, in front of a scanner and a color printer, sits a state-of-the-art flat screen connected to a superb Macintosh G3, "the only one in the whole company, faithful as I have been to the Mac since forever". In the early 90s, when he was planning to retire from the health sector, Cajolet decided to invest and bought the Camelot-Info computer bookstore located on Phillips Square. "I wanted to treat myself to a semi-retirement and have a little fun, that's all. However, I got caught up in my game, and today" Today, Robert Cajolet is at the head of a small empire, the largest chain of computer bookstores in Canada, with more than 80 employees who are also computer nerds, and generating a turnover of more than ten million dollars. And his book sales website is, unlike Amazon.com, profitable. With a little smile, Robert Cajolet says: "We quickly reached our objectives with this site. We are very proud to be able to say that with our Internet sales service, we are cheaper, once the delivery costs are added, than Amazon. On the Camelot site, no bad surprises, our price always includes transport and handling." A simple magazine seller The little story of Camelot, told by Cajolet, is always a bit surprising. More than 20 years ago today, Camelot was just a magazine store, selling everything and nothing. The UQAM computer science department was located on the floors above Camelot. Students began asking the owners of the time to bring them the specialized magazines of the time. One thing led to another, and they became more daring and began to inquire about books on computers, which were impossible to find in Montreal at the time. Camelot had just found its niche. Today, like a kid, Robert Cajolet has found a new toy, his website, with which he plans to "be able to make sales as large as one of our storefront bookstores" within a year. A true (and rare) Quebec success story in the field of e-commerce, our joyful maniac is preparing to make us experience the digital book revolution. According to Cajolet, "we plan to start selling e-books by the end of the year. For example, imagine a professor who writes a computer manual with a target audience of 1,000 to 2,000 readers. Instead of having to go through the laborious process of publishing and printing on paper, the professor will only have to produce an electronic document, usually in PDF, of his book, so that we can then sell it online. Delivery? Immediate! The reader will only have to print his book or read it on the screen." One might think that with all these projects, our friend Cajolet could finally enjoy his retirement. Well, no. He has just found a brand new passion: Linux. With the arrival of Linux, Cajolet feels like he is at the heart of the action, living the history of computing as it will surely be told later. "Linux aficionados have always known that we are "the" source for everything related to this operating system. I have always wanted to give Linux a special place in our stores." Maybe, but to the point of launching into the Alternative-Linux adventure? Adios to the supposed retirement. Here is our madman who is once again throwing himself into an exciting project. "Linux, I see it in my soup. According to our contacts with distribution editors, what some seem to believe to be a fad will turn into a tidal wave in the year 2000 with the launch of a version of Linux that will be as easy to install as Windows or MacOS [Editor's note: the Open Linux 2.3 version of Caldera is a delight to install], with a standardized interface that is just as user-friendly, and OpenSource software that will have nothing to envy of its big commercial brothers. It is also out of passion and a bit of madness that I decided to get involved in the Alternative Linux project." Presented on November 1st, 2nd and 3rd at the Bonaventure Hilton Hotel, this series of conferences and practical workshops on Linux, organized by Camelot-info, 8D Technologies and the Centre de recherches informatique de Montréal (CRIM), is the first of its kind to be held in Montreal. On this occasion, we will have the chance to meet and hear the gurus of the OpenSource movement such as Richard Stallman (GNU), Eric S. Raymond, an OpenSource evangelist, Mike Shaver (Mozilla), David Haxmark (MySQL), as well as Jacques Gélinas, an OpenSource evangelist from here and Joël Pomerleau. Michel Dagenais will also be there to talk to us about the Gnome interface. No doubt I will tease him a little with KDE. Because I will be there, dear readers, have no fear. And by the way, another little scoop for you, a group of promoters is reportedly organizing a major Linux exhibition like Linux World in Montreal for the year 2000. In short, Robert Cajolet may be a charming "young" retired man, but never has a retired man fascinated me so much with his madness and his ardor. While he could have focused solely on his retirement project, Cajolet is involved in everything and has no intention of resting on his laurels. Guillemot Xenta 32: a video card that's not bad In the wonderful world of video cards, we often tend to think that outside of Matrox, ATI and Diamond, there is no salvation. However, during the MIM, I had the opportunity to get my hands on a superb video card from the company Guillemot, better known through its sister company, Ubisoft. Ubisoft is software, but Guillemot is hardware. And what hardware! The MaxiGamer Xentor 32 is not a card for schoolchildren. It is aimed at the gaming enthusiast who needs to boost his shiny monster by 400 and some MHz even more. At the heart of this card, a powerful RIVA TNT2 Ultra processor, cooled by a small fan mounted on the card itself. For those who are crazy about numbers, here are some in bulk: NVIDIA RIVA TNT2 chip at 175 MHz, 32 megabytes of memory at 183 MHz SDRAM, 300 MHz RAMDAC, a TV output. But is all this really essential because after all, except for a few maniacs, what interests us more is the real performances of this card. Having only had one day to test it before writing my paper, allow me to give you my very preliminary impressions of this card. We will probably talk about it again in the coming weeks in the games column. The installation? A charm, the Windows 98 "plug-and-pray" behaved as it should, in less than ten minutes, the time to open the hood of my machine, change the card and restart the beast, the Xenta 32 was recognized without any problem. A little advice, I recommend you visit the Guillemot site to always have the latest drivers on hand. So let's launch Quake II, a Star Wars game in 3D, and then Half-Life, to see the difference with my old video card, something, all in all, very average. Hey! Dear readers. What performances! And a truly exceptional 3D image quality. The textures, the reliefs, everything is greatly improved compared to my old 3D card. Nothing to do with it, there is a world of difference between this one and the Xenta 32. I feel like I'm going to have to lend it for a while to my friend Matthieu, my young but oh so competent tester of skill games. I just dare to hope that I can get it back quickly, because you quickly get used to such fluid images. So we'll talk about it again in the coming weeks, but know that at first glance, the Xenta 32 has nothing to be ashamed of measuring itself against the other big players on the market. Not at all. And when I think about the new 3D Prophet card that's coming I feel like the big kid in me hasn't finished having fun this winter. Bookmarks Camelot-Info http://www.camelot.ca Alternative Linux http://www.alternativelinux.com/ Guillemot http://www.guillemot.com/northamerica/index.html

## ###ARTICLE\_START### ID:633

Where the columnist, in a burst of impartiality, addresses the worshipers of the Holy Apple (who reign supreme in the Devoir newsroom) and offers them solutions for updating their Macintosh. Last week, I offered Le Devoir readers solutions for updating their outdated computers at low cost. Are there identical solutions for the Mac? To these questions, the columnist answers yes three times! A few years ago, when I was myself a high priest of the Holy Apple, I fell for the brand new Power Macs that were coming onto the market. After discussing it with my ex-partner, I took the plunge for these new beasts. A few weeks after placing my order, I received this monster that was the envy of the Mac community, a magnificent PowerMac 8100 A/V with its 80 MHz processor. Today, even the neighbor's friendly cat looks at this computer with disdain. And I won't even mention my mother (her again!), who preferred my brother's offer for a newer Mac. Who should I pass it on to then? My daughter? Good idea, but many games require a newer processor. So I went online to see what solutions are available to Mac users who want to upgrade their computer at a reasonable price. Roaring Beast Newer Technologies (http://www.newertech.com ) has long been known for its innovative solutions. So let's see if there is a solution for my 8100. Believe it or not, it is now possible to graft a new brain to all PowerPC-based Macs. Even the oldest ones. Whether you have an early PowerMac, a Performa or even the most recent G3 like me, you can transform your computer kitten into a roaring beast. Since it's a Macintosh, the solutions offered by Newer Technologies are much simpler to install than the Powerleap update for PCs. Let's give credit where credit is due, there's nothing simpler than a Mac. My friend Bill and his PC buddies still have a long way to go before they reach the proverbial simplicity of a Mac. For example, for my 8100, all you have to do is open the lid (you won't even need a screwdriver) and plug a Newer G3 card into one of the free slots. In less than two minutes, I'm the owner of a 400 MHz Mac G3. Even orphans who have invested in Power Computing, Umax, Daystar, Motorola, APS, and Radius clones can find new brain cells for their computers. Unfortunately, simplicity comes at a price. Unlike Powerleap, Newer Technologies upgrades range in price from $349 to a whopping $750. But why do Mac accessories cost more than their PC counterparts? I admit, I haven't yet installed the solutions offered by Newer in my Mac. But, in the coming weeks, I'm going to order a Newer card and update my old and faithful Mac. After all, my daughter deserves it. And I'll tell you more about it, as you can imagine. Everything for everyone (and cheap...) The motherboard of your Mac 7100 has just exploded and the price that Apple is asking you to replace it is equivalent to the mortgage payment on your house? Do you want to buy a Powerbook laptop at a reasonable price? How about having a 600 dpi laser printer printing 12 pages per minute for $599? For years, when I want to buy Mac parts or accessories at a low price, my first instinct is to consult the Shreve catalog (http://www.shrevesystems.com ). For example, on the company's website this week I found a deal for a Powerbook 5300 cs color laptop with 24 megabytes of RAM and a 750 megabyte hard drive for $625 and a refurbished 20-inch Applevision monitor for $850. Great bargains at a low price, Shreve has been specializing in Apple products since the Apple II's immemorial days. Which doesn't make the columnist any younger. Linux for the Mac Shame on me! Over the past few weeks, I've been regularly discussing the Linux operating system... without offering any distributions for the Mac. Allow me to tear myself to pieces while suggesting a few distributions that will allow you to install Linux on your Mac. Concerns about the robustness and security of Linux on your Mac? The programmers of the LinuxPPC project (http://www.linuxppc.org ), a distribution for all computers based on this microprocessor, have beaten Microsoft hands down by installing their version of Linux on a Power Mac 9500 and asking hackers of all kinds to penetrate their system. No one has managed to hack the Mac, even by publishing the "sysadmin" password. Apple engineers have also been working on their version of Linux for a few years and you can find their distribution on the Big Apple website. But, in my opinion, the most promising distribution for PowerMacs and G3s will undoubtedly be that of the company YellowDog (http://www.yellowdoglinux.com ). A product comparable to the distributions of Red Hat and Caldera. Are you intrigued by Linux on the Mac and would you like to know a little more? Trot your mouse over to the Mac OS Opensource software website (http://www.jmac.org/ macos\_oss ). Linux-Québec Shame on me again. All summer, I've been regularly talking to you about Linux... without telling you about the best resource available on the subject in Quebec. Founded in September 1997 by Jacques Gélinas and Michel Dagenais, this organization is a group of volunteers whose mission is to "help current and future Linux users in Quebec discover the advantages of Linux, use it effectively, and realize the benefits of open-source software." In addition to a website full of resources and discussion forums to help new converts, Linux-Québec (http://www.linux-quebec.org) organizes monthly meetings allowing Linux users to meet and exchange ideas. A must Word Perfect for the Mac: free! One of the best "texters" in the world is available for free. The price to pay? The few minutes of waiting to download it. The release of the latest version of the MacOS operating system has sounded the death knell for version 3.5 of the Word Perfect word processor for Macintosh. Its aging code and some minor incompatibilities with MacOS 8x mean that Corel has to rewrite it. While waiting for a new version, you can download this software for free from the Corel website (www.corel.com/products/macintosh/wpmac35/newdownload ). Not available in this free version are templates, fonts, clip art and Web images, and sound sequences. An excellent opportunity for Mac users on a budget as well as all schools. Indeed, after having carefully read the software's license, I see no restriction that prevents a school or school board from installing this version of Word Perfect for free on all its Macintosh stations. Filters for Office 98, Clarisworks, and all other versions of Word Perfect are available on the Corel website. Copernicus Mac version: finally! Rejoice, worshipers of the Holy Apple. Copernic, the meta-search software from the dynamic Quebec firm Agents Technologies, is finally available in a Macintosh version. Available in two versions, a free version and Copernic 99 Plus, offered at the price of $29.95, this software will delight the disciples of the multicolored Apple (and all the journalists in the newsroom, to whom I suggest not to wait and to immediately download this jewel of Quebec software engineering). Rewarded by numerous awards and mentions from the international computer press, Copernic allows its users to simultaneously query many search engines, to separate the wheat from the chaff (that is to say, the duplicates) and to validate the choices proposed. The free version allows you to query the main search engines of the English-speaking Web such as AltaVista, Hotbot and tutti quanti, those of the French-speaking Web (la Toile du Québec, Lokace, etc.), discussion groups, email directories, book purchase sites, as well as the brand new domain, Nouvelles Mac. "This one targets news sites related to the Macintosh world using the MacAddict, MacCentral, MacNN, MacTopia and TidBITS engines." The Plus version offers its lucky buyers many other search domains. Copernic 99 can be downloaded at the following address: http://www.copernic.com. dumais@mlink.net

## ###ARTICLE\_START### ID:634

The intention was laudable: to reward volunteer developers of Linux software by offering them shares in the main distributor of the operating system, Red Hat, which went public on August 11. The result was catastrophic: many programmers saw their registration on the stock brokerage site E-Trade (essential to benefit from the offer) rejected because they did not present sufficient financial guarantees. A humiliation for many of these computer virtuosos who develop free software for the pleasure of it. Volunteers. Unlike the publishers of "proprietary" software (Microsoft, Lotus, Claris, etc.), free software developers make their contributions available to each member of the community. Everyone can propose improvements or adaptations based on the work of others. This is how thousands of volunteers developed Linux, an operating system reputed to be more stable than Windows, Microsoft's flagship product, based on the initial idea of a young Finnish enthusiast, Linus Torvalds. To ensure the distribution of Linux, several companies were created: they refine the software, offer technical assistance... In exchange for payment. Shortly before Red Hat's IPO, more than 3,500 volunteer programmers, duly selected, received this offer: it was through their efforts that Linux software was able to emerge and Red Hat to know success. In compensation, the company decided to reserve more than 13% of the shares for them. But to take advantage of the offer, you have to open an account with E-Trade and deposit at least $1,000. "Nightmare". In the online magazine Salon, one of them, Scott Ananian, a student at the Massachusetts Institute of Technology (MIT), near Boston, recounts his misfortunes (1): "The adventure became a nightmare, the programmers getting caught up in exhausting negotiations with E-Trade employees who seemed to concentrate their efforts on making the gift as difficult as possible to obtain." After harassing the employees, he finally obtained the opening of his account. Others will regret checking the "$0 to $19,999" box to report their net worth and describing their experience as a financial investor as "limited." The admissions questionnaires are designed to weed out those who risk personal bankruptcy due to their poor knowledge of stock market mechanics or lack of funds. "Red Hat tried to do things right," explains Stéfane Fermigier, president of the French-speaking Association of Linux and Free Software Users. "They sincerely wanted to share the money generated by the IPO with developers. But E-Trade was not up to the task." The case illustrates the complex relationship between the development of free software by volunteers and its commercialization by private companies, listed on the stock exchange. It may seem shocking that these firms generate profits on behalf of their shareholders from the work of volunteers. "The principle of making money with free software is not unethical, believes Frédéric Couchet, the president of April (Association for the promotion and research in free computing). The IPO of a distribution company is not incompatible either." Stéfane Fermigier adds: "A developer who chooses the game of free software accepts that it can be sold by a third party. A system like Linux can only progress if traditional distribution channels are set up." "Poet". In three days, the price of Red Hat shares increased sixfold. For the programmers who were able to obtain 400 shares, the capital gain reached more than 170,000 francs. But for Scott Ananian, the system is going astray: "Red Hat's offer to the Linux community was intended to be participatory: ordinary developers were to receive their share of a company they had helped create. Instead, our alienation from the system has become more evident," writes the young developer, who points out that the rewards prized by the community are based on mutual respect and admiration. "Money is not what we write code for all day. I can no more explain what makes us produce code than a poet can explain why he writes (...). This IPO does little to fulfill the goals of free software."

## ###ARTICLE\_START### ID:635

Recently, the congress of cyberspace "hacktivists" was held in Las Vegas, the famous DEF CON VII. The star event was the launch of the 2000 version of the no less famous Trojan horse, Back Orifice. The best hackers in North America would not miss this annual meeting for anything in the world. Just like their sisters and brothers from all over the world. And just like the representatives of the police, much more discreet than the majority of participants. But the seventh edition of the largest gathering of pirates (crackers, hackers, phreakers) of all kinds, DEF CON, was above all the occasion for "The Cult of the Dead Cows", a group of hackers, to launch the new version of the highly publicized Back Orifice software. And network administrators everywhere are trembling, because this "Trojan horse" is attacking what seemed impossible a year ago. BO's new target is Microsoft's high-end operating system, Windows NT, recently renamed Windows 2000. Back Orifice Picture the scene. While you are working, you have the distinct impression that someone is watching you. Suddenly, the cursor on your computer starts moving, without you touching your mouse. A ghost has just taken over your computer. It is accessing the various directories, as well as the company network. You are horrified to see that the ghost seems to be transferring files to an unknown destination. Subsequently, once its misdeeds are finished, the ghost disappears as quickly as it had come, unless, in a fit of madness, it formats your hard drive and leaves you as before. You have just been a new victim of Back Orifice. Back Orifice is a remarkable little software that you probably received without your knowledge, through email, or during a chat session, unless it was simply installed on your computer by a malicious person. Once the software is activated, anyone can literally take control of your computer, make copies of your files and access the company network without you realizing it. How is this possible? The artist-programmers of the group "Cult of the Dead Cows" (CDC) were able to find and exploit the flaws in the Windows 95, 98 and NT operating systems. Needless to say, Macintosh users are not targeted in any way by Back Orifice. It only affects the flaws in Microsoft operating systems. From there to saying that MacOS is more secure than Windows, there is only one step to take, and I am taking it. And there you have it, another brick in the religious war between MacOS and Windows supporters. Last year, just a few days after the first version of Back Orifice was "released", most of the major anti-virus software publishers were already offering Internet users around the world a way to counter and annihilate the effects of Back Orifice. However, this year, with version 2000 of Back Orifice, the challenge will be much greater. Because, in a fit of generosity (sic!), the programmers of "Cult of the Dead Cows" are offering us an OpenSource version of Back Orifice 2000. Which means that anyone with the slightest knowledge of programming will be able to download the source code of Back Orifice and thus make modifications or improvements to it and thus alter the very signature of the software. Multiple versions of BO could therefore circulate on the Net, all with a different electronic signature. Imagine the headache for anti-virus software publishers. Obviously, I can't recommend enough that you invest in an anti-virus and update it regularly. Also, never, never, never accept executable files by email or during a chat session. Never! Programmers today have at their disposal small tools called "wrappers" that wrap software like BO in what appears to be a simple little game for example. You run the game in question, but at the same time, without you realizing it, BO installs itself without your knowledge. Don't forget, love has to be protected. A computer too. Atout Micro I confess, for years, I have been a "fan" of the Quebec computer magazine Atout Micro. Produced with a small team dedicated to popularizing today's computing, and a high critical sense, I read with consummate pleasure each of the publications of Atout Micro. It was therefore with astonishment that I recently received a little note from François Picard, the publisher of Atout Micro: "To celebrate its twelfth anniversary, Atout Micro is offering its readers the opportunity to subscribe or transfer their current subscription to a fully electronic version of their magazine." That's it, I thought, Picard has hit the nail on the head. In addition to producing its paper version, it is offering its readers the option of downloading a PDF version of its magazine, with all the risks that this implies, i.e. a huge file that will take hours to download. It was a great shame for me, because after many experiments, the Atout Micro team is instead offering us a real clone of its magazine, ready to be printed, and faithful to the paper version. But what's more, the file generated does not "weigh" more than a few megabytes, which is quite reasonable. In less than twenty minutes, I downloaded the entire magazine for the current month. And no PDF, but a small executable file produced with software and a recipe that Picard jealously guards. Because it is a real little revolution that the modest team of Atout Micro offers us. The first virtual magazine in Quebec is not offered by large press groups like Quebecor or Transcontinental, but by a very small independent publisher from Quebec. They should be interested in what our friend Picard is doing. For my part, when I renew my subscription, I will now ask to receive it in electronic format and no longer in paper format. Hats off to Atout Micro Linux: questions and comments from readers Many of you have written to me about previous articles on Linux and the open-source software movement. Allow me to share a few of them with you. A very interesting testimony from Mr. Marc Girard about his discovery of Linux: "Let me tell you an anecdote. A few months ago, I sold my main workstation in order to buy a new one. Finally, for financial reasons, I was forced to delay the purchase of my new computer. That's when I took out my good old Pentium 133 from the mothballs and installed the RedHat 5.2 distribution (which was brand new). I also installed the KDE 1.0 Beta interface (also brand new at the time). I had strong doubts, but I told myself that I would still try to survive with my Linux. To my VERY BIG surprise, two months later, I was doing EVERYTHING with my "Linux-Box"! Since then (about a year) I have been evangelizing my colleagues to Linux/KDE. I hope this can reassure your readers who want to make the jump." Several of you have also asked me if there was a resource in French to learn a little more about Linux. I suggest you connect to the Linux-Québec organization website, a group of true enthusiasts whose goal is to help Linux users, new and experienced. For my part, when I made the jump to Linux, many Linux-Québec members spontaneously wrote to me to offer their disinterested help in case of problems. Mr. Jean-Luc Crucifix, director of a translation and linguistic services firm, asked me if there was a French version of Linux and what products were available in French. To our great joy, the KDE graphical overlay is multilingual, which means that you can use Linux in French, just like the StarOffice suite, which is also multilingual. Finally, Julien Barbeau asks me which version have I adopted, RedHat or Caldera? Caldera, dear Mr. Barbeau, I have adopted the Caldera suite. But fear not, the RedHat distribution is just as complete, notwithstanding the Word Perfect suite. Bookmarks of the week DEF CON VII: www.defcon.org Cult of the Dead Cows: www.cultdeadcows.com Back Orifice 2000: www.bo2k.com Atout-Micro: www.atoutmicro.ca Linux-Québec: www.linux-quebec.org dumais@mlink.net

## ###ARTICLE\_START### ID:636

Libertarian corsairs, talented programmers or high-tech criminals? Why baptize with the same name of hacker pirate, according to the bad French translation, a Vladimir Levin, cybercriminal, who robbed a bank via networks, and a Linus Torvalds, clean-cut boy, gifted programmer from Silicon Valley? The answer is in the young history of computing. In the 60s, hackers were computer enthusiasts, tinkerers determined to push the machine beyond its limits. If the origin of the word is unclear, we can retain the most plausible explanation: these keyboard enthusiasts took apart ("to hack" in English) software, to understand it, improve it and enrich their knowledge. An obsessive and playful practice which would be coupled, in the 70s, with a libertarian tendency. "Breaking computer security was something hackers did occasionally," explains Richard Stallman, a long-time hacker who started out at the famous Massachusetts Institute of Technology (MIT). "It was set up by administrators to control users. And hackers have little respect for bureaucracy." A talented programmer who is always keen to improve software, Stallman is indeed a hacker. Just like Linus Torvalds. And, by a shift in meaning, anyone who has enough knowledge of computers and networks to sneak into machines, whether out of curiosity or to commit a crime. With the explosion of the hacker "scene," as they call their community, vocabulary has flourished to differentiate all these people. The cracker or black hat hacker destroys data, the white hat hacker respects a certain ethic, the coder tinkers with viruses, the carder is an adept at breaking bank card systems, and the phreaker (phone and hacker) hacks the phone. The "jargon file", written and updated since 1975 by a collective of hackers, attempts to clear up this terminological mess. Without the hackers themselves being able to agree. The only way to not misuse the word hacker: ban it from your vocabulary.

## ###ARTICLE\_START### ID:637

You have probably already heard of this theory according to which every person in the world is separated from the other by only six levels of contacts. The creators of Sixdegrees.com, a most fascinating site, decided to put this theory into practice thanks to a site allowing networking. There are many sites allowing networking between people with the same interests on the net. The Mining Co. (http://www. miningco.com/) has long been my favorite site (and I wonder when the Francophonie will have its own). However, very recently, a simple little email drew my attention to the site sixdegrees.com (www.sixdegrees.com). "Hello! I am trying out a service that proves that the world is small! It seems pretty cool and it seems serious. I am curious to see the network of contacts that can be built with this system." An invitation followed to visit the site in question. You know me... Hop! I went there. The principle is very simple. When you register, you are asked to include three to 10 contacts (not mandatory) in your list. They will in turn receive an email asking them to register and also include three to 10 people in their contact list. In short, a site like sixdegrees could not exist without this essential participation of Internet users, a bit like Linux and the open-source software movement. Once you have registered, you are free to search for other people by community of interest, to browse at random, to register for a community or even to found your own. Everything is possible With sixdegrees, everything is possible. You know who is online, how many people from your interest groups are available to discuss in real time (chat), what new messages have been added to the various bulletin boards. As you will have understood, the goal of the "game" is to put people in contact. I had fun browsing randomly in sixdegrees and, oh! pleasure, I noticed that an old friend I hadn't seen for a long time was registered in a technonerd community. Was it really him? A quick email to see. Affirmative. But what is most fascinating about sixdegrees is the relationships between people. You find a person, you go back up their contact list, and then you see who these contacts are in contact with. This is exactly how I was able to find my boyfriend. Fascinating! Of course, with the personal information given to sixdegrees, you can imagine that I wondered what the company's policy was on privacy? Sixdegrees is part of the TRUST program, which requires its members to disclose all their practices on this subject. Read the section of the site explaining what they do and do not do with the information given before signing up. This will help you make an informed decision. In any case, sixdegrees is a fascinating concept that once again proves that the world is very small, even very small. Guest of the week My guest this week is a redhead, epicurean, brilliant and playful. She committed the supreme crime of switching from Mac to PC and has been raging on the net for some time. Martine Gingras, noting that technology was definitely evolving very quickly, recently put her doctorate in communication on hold to prevent her knowledge of the Internet from gathering dust before it was used. Today, she flits from one contract to another offering consulting, research, web writing and training services. She also writes a monthly commentary for the show Cl@ir et Net, on Radio-Canada's first channel. She also wrote some gems of texts for a cultural weekly, not so long ago. I invite you to visit her site (http://martine.gingras.net/), the tickets to access it are not expensive at all. Go ahead, it's her tour. Summarizing in a few links what attracts me on the Web Not easy! For the purposes of this exercise, I will limit myself to what I call "coffee sites", that is to say, essential parts of my morning routine, which I generally visit while drinking my triple espresso (the espresso, not me!). Know that the ergonomics and attractiveness of the workspace do not stop at the edge of the screen! Thanks to Skinz.org, I find pretty "skins" that make my computer interface more user-friendly. Among my favorite "skins", there is Battle Angel for the Sonique music player and Capsula for WindowBlinds Skinz.org http://www.skinz.org/ A webzine that always takes a fresh, generally lucid and sometimes even disturbing look at current events, technology, culture and the contemporary world, in short. I do not remember a single visit to Salon Magazine from which I left empty-handed without a good article to sink my teeth into. Salon Magazine http://www.salon.com/ Rather than using several search engines in succession, I often use "meta engines" that scour the Internet for me. Ask Jeeves had the good idea of personalizing the search activity by inviting us to ask your questions to a friendly character (Jeeves) who has the answer to everything. I like to play the voyeur on the home page, where the questions that other visitors ask Jeeves are displayed. Ask Jeeves! http://www.askjeeves.com/ For more specialized searches (in discussion groups, recipe sites, information sites, etc.), I prefer the Copernic software for Windows or, for Macintosh, the Sherlock search tool integrated into MacOS by Apple since version 8.5. www.copernic.com www.apple.com/sherlock I only discovered it very recently, but this site has already dethroned several of the gastronomic bookmarks that I had been faithful to for a long time. I first visited it to discover new recipes, but it was ultimately the thematic sections (a food guide, specialized files, various little tips, etc.) that elevated it to the rank of reference in my bookmarks. Service Vie, Food section http://www.servicevie.com/01alimentation/ Comparative studies of computer hardware, guides for optimizing your machine, specialized discussion forums Essential for going through the initiation rites marking my transition from Macintosh to PC in January! Sharkyextreme http://www.sharkyextreme.com/ Michel forbade me to mention it among my five chosen bookmarks, because it seems that all the other people who shared their selection in this column had the good idea to mention it. But since Multimédium is also for me an important source of news, informed comments and detailed files on technological news from here and elsewhere, please allow me to indicate it as sixth choice. Multimédium http://www.mmedium.com/

## ###ARTICLE\_START### ID:638

Free software is all well and good in theory, but in everyday life, can an average user work and have fun with just that? The columnist answers yes. And proves it. Even though last week, my email address (dumais@mlink.net) had not been published, some smart people still found a way to send me a little note and even to challenge me. "Dear not very humble columnist, all this (free source software) is all well and good, but in reality, what about it? Do I have access to software of equivalent quality to the Microsoft Office suite, can I play games as interesting as Alpha Centauri that you recently talked about, will my peripherals like my scanner, my ZIP reader, my digital camera be recognized? I await your answer", blah blah blah. Oh! What a beautiful case. Dear down-to-earth readers, you are absolutely right, and let me reassure you and prove to you that open-source software is not only a reality, but also that it is now as easy to use as the Windows or MacOS operating system. The Macintosh? No, not really, there will be nothing as simple as the Mac, I humbly admit. So let's say as simply as Windows. The operating system The basis of any system is obviously its operating system (OS). No OS, and the computer is as usable as a pile of rusty nails. Obviously, your choice will be Linux, the darling of the tech press. If you had asked me seven or eight months ago if Linux was ready to be used by Mr. and Mrs. Average, I would have answered you a categorical NO. I know that at the end of 1998, on behalf of the cyber-daily Multimédium, I had fun trying to "live in Linux" for two months. No Windows, no MacOS, only open-source software. I won't tell you about my first steps in installing and configuring the OS, suffice it to say that they were difficult, and that without the precious help of a few people who are part of the Linux community, I would still be trying to survive in Linux. But in the last few months, with the launch of two new Linux distributions, things have changed a lot. I recently received their brand new versions of Linux from Caldera and Red Hat. Oh joy, oh happiness, sound the trumpets, Linux for all is finally a reality. Previously, as much as installation was a nightmare for ordinary mortals, these new distributions are as easy to install as Microsoft's OS. In less than 20 minutes, it is now possible to install a complete version of Linux with a minimum of computer knowledge, with a "Windows-like" graphical interface and office suites that are not shabby. And what's more, the Caldera distribution does not erase your current Windows installation in any way. You can therefore return to Windows whenever you want. The vast majority of sound cards, video cards and other peripherals are recognized without any difficulty. The quantity of available drivers is astounding, and even the installation of certain peripherals such as CD-ROM burners is now possible. And what about the user interface? The editors have made clear efforts to offer us interfaces that allow a user of the Windows environment not to feel disoriented. And above all, to isolate us, if we wish, from the cryptic text-mode commands of the Unix world. A bit like the first versions of Windows, from the DOS world. Take a look at the KDE interface or even that of Gnome, and you will understand. Office suites Once the installation step is completed, we see that Caldera and Red Hat, in a remarkable effort to democratize the product, have automatically installed powerful office suites on our hard drive. Both distributions offer us the office suite of a German publisher, StarOffice. Do not be put off by this publisher who may seem unknown on the battlefield. Star is a well-known publisher in Europe and its software is not a by-product of known suites. Quite the contrary. The StarOffice suite is made up of several modules: a word processor as powerful and ergonomic as the Microsoft suite, a spreadsheet with functions as advanced as Excel or Quattro Pro, a PowerPoint-style presentation software, an integrated calendar, a practical vector drawing software, and a database. And compatibility with the outside world is total. You receive .DOC files produced by MS Word 97? You can open them and then save them in this file format without any inconvenience. A colleague works with Excel? The files produced by the StarCalc module of StarOffice are 100% compatible with the popular Microsoft spreadsheet. You are sent a PowerPoint presentation? You can read and modify it with the StarImpress module. And even use functions that are not available with Microsoft's presentation software. I don't care about wanting to cheapen the Microsoft suite. But, between you and me, you will admit that between $700 for Uncle Bill's suite and nothing at all for the StarOffice suite, the choice is simple. I even point out that the StarOffice suite is available for the Windows environment. The curious can download it directly from the Star site. And for those who want to use a great classic, the Caldera distribution even offers the Word Perfect 8 software for Linux for free. Yes, yes, the same Word Perfect that you paid a few hundred dollars for. What about the other software? Although each distribution is resold at modest costs (around $50 to $60), in addition to the operating system and the office suite, other applications are also included on the CD-ROMs. For example, I am sure that many of you are familiar with the image editing software Photoshop. Would you believe that there is a clone of this application? And that The GIMP, that is the name of this software, is as powerful and efficient as Photoshop? I remember, when I first used Linux, I was very skeptical about the idea that a software could do as much as Photoshop. I was left with a disappointment, because The GIMP could do about 80% of what Photoshop is capable of doing. Gee! Drawing software? MP3 playback? Multimedia? Web page design? Open source software abounds, whether on the Internet or on some CD-ROMs filled to the brim with little software gems. Yes, it is now possible to live entirely and work without any restraint, thanks to open source software. And excuse me? And games? But you are absolutely right, dear skeptical readers, is it possible to have fun too? Six months ago, I would have told you that no, Linux is not a "gaming machine". Except that today, my vision of the thing is changing. In addition to the classic card games, dice games and the like, more robust games are starting to make their way. Let's be honest with you, dear readers, there is a long way to go before reaching the level of quality of current operating systems for playing, but almost every day, new and more complex games are available on the Internet. You can download a version of Quake II and even the brand new Linux adaptation of Quake III. Recently, I had the pleasure of installing a completely free version of the popular strategy game Civilization. What a great adaptation! Once again, this is not a by-product, but a complete software that is as serious and fun as the Windows version. And this is a first. Indeed, it is the first game from the Windows environment that is ported to Linux by a major publisher. And the coming months should see the arrival of other games like Railroad Tycoon and Myth 2. Truly, truly, I tell you, my increasingly less skeptical readers, whatever we do, whatever we think, whatever we say, and above all, whatever Uncle Bill and his friends in Redmond think, I persist, and I sign: the free software movement "is alive and well" and may the skeptics be confounded. And go in peace. Be free. dumais@mlink.netBookmarks of the week Caldera: www.calderasystems.com/Red Hat: www.redhat.com KDE Interface: www.kde.org Gnome Interface: www.gnome.org StarOffice: www.stardivision.com Word Perfect for Linux:

## ###ARTICLE\_START### ID:639

You have probably already heard of this theory according to which every person in the world is separated from the other by only six levels of contacts. The creators of Sixdegrees.com, a most fascinating site, decided to put this theory into practice thanks to a site allowing networking. There are many sites allowing networking between people with the same interests on the net. The Mining Co. (http://www.miningco.com/) has long been my favorite site (and I wonder when the French-speaking world will have its own). However, very recently, a simple little email drew my attention to the site sixdegrees.com (www.sixdegrees.com). "Hello! I am trying out a service that proves that the world is small! It seems pretty cool and it seems serious. I am curious to see the network of contacts that can be built with this system " Followed by an invitation to visit the site in question. You know me ... Hop! I went there. The principle is very simple. When you register, you are asked to include three to 10 contacts (not mandatory) in your list. They will in turn receive an email asking them to register and also include three to ten people in their contact list. In short, a site like sixdegrees could not exist without this essential participation of Internet users, a bit like Linux and the open-source software movement. Once you have registered, you are free to search for other people by community of interest, to browse at random, to register for a community or even to found your own. With sixdegrees, everything is possible. You know who is online, how many people from your interest groups are available to chat in real time, what new messages have been added to the various bulletin boards. As you will have understood, the goal of the "game" is to put people in contact. I had fun browsing randomly in sixdegrees and, oh! pleasure, I noticed that an old friend I hadn't seen for a long time was registered in a technonerd community. Was it really him? A quick email to see. Affirmative. But what is most fascinating about sixdegrees is the relationships between people. You find a person, you go back up their contact list, then you see who these contacts are in contact with. This is exactly how I was able to find my boyfriend. Fascinating! Of course, you can imagine that with the personal information given to sixdegrees, I wondered what the company's policy was on privacy? Sixdegrees is part of the TRUST program which requires its members to disclose all their practices on this subject. Read the section of the site explaining what they do and do not do with the information given before signing up. This will allow you to make an informed decision. In any case, sixdegrees is a fascinating concept which once again proves that the world is very small, even very small. Guest of the week My guest this week is a redhead, epicurean, brilliant and playful. She committed the supreme crime of switching from Mac to PC and has been raging on the net for some time. Martine Gingras, noting that technology was definitely evolving very quickly, recently put her doctorate in communication on hold to prevent her knowledge of the Internet from gathering dust before it was used. Today, she flits from one contract to another offering consulting, research, web writing and training services. She also writes a monthly commentary for the Cl@ir et Net show on Radio-Canada's Première chaîne. She also wrote some gems of texts for a cultural weekly, not so long ago. I invite you to visit her site (http://martine.gingras.net/ ), the tickets to access it are not expensive at all. Go ahead, it's her tour. Summarizing in a few links what attracts me on the Web Not easy! For the purposes of this exercise, I will limit myself to what I call "coffee sites", that is to say, essential parts of my morning routine, which I generally visit while drinking my triple espresso (the espresso, not me!). Be aware that the ergonomics and attractiveness of the workspace do not stop at the edge of the screen! Thanks to Skinz. org, I find pretty "skins" that make my computer's interface more user-friendly. Among my favorite "skins", there is Battle Angel for the Sonique music player and Capsula for WindowBlinds Skinz. org http://www.skinz.org/ A webzine that always takes a fresh, generally lucid and sometimes even disturbing look at current events, technology, culture and the contemporary world, in short. I do not remember a single visit to Salon Magazine from which I did not leave empty-handed without a good article to sink my teeth into. Salon Magazine http://www.salon.com/ Rather than using several search engines in succession, I often use "meta engines", which scour the Internet for me. Ask Jeeves had the good idea of personalizing the search activity by inviting us to ask your questions to a friendly character (Jeeves) who has the answer to everything. I like to play the voyeur on the home page, where the questions that other visitors ask Jeeves are displayed. Ask Jeeves! http://www.askjeeves.com/ For more specialized searches (in discussion groups, recipe sites, information sites, etc.), I prefer the Copernic software for Windows or, for Macintosh, the Sherlock search tool integrated into MacOS by Apple since version 8.5. www.copernic.com www.apple.com/sherlock I only discovered it very recently, but this site has already dethroned several of the gastronomic bookmarks that I had been faithful to for a long time. I first visited it to discover new recipes, but it was ultimately the thematic sections (a food guide, specialized files, various little tips, etc.) that elevated it to the rank of reference in my bookmarks. Service Vie, Food section http://www.servicevie.com/01alimentation/ Comparative studies of computer hardware, guides for optimizing your machine, specialized discussion forums Essential for going through the initiation rites marking my transition from Macintosh to PC in January! Sharkyextreme http://www.sharkyextreme.com/ Michel forbade me to mention it among my five chosen bookmarks, because it seems that all the other people who shared their selection in this column had the good idea to mention it. But since Multimédium is also for me an important source of news, informed comments and detailed files on technological news from here and elsewhere, please allow me to indicate it as sixth choice. Multimédium http://www.mmedium.com/

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Since spring (1), a rather distressing question has been floating around for all those who, from near or far, are interested in the Internet, new technologies, this wonderful world of the future (if God and Paco Rabanne lend us one after August 11): do we have the "Web attitude" as described and experienced by Bill Gates? No less than an entire chapter, the 7th, in his latest opus, Working at the Speed of Thought, whose title alone is quite distressing. The Great Helmsman of the year 2000, who modestly subtitled his work: A Vision for the Third Millennium, has also racked his neurons trying to explain that, broadly speaking, in the next ten years, everything will go very, very quickly, much more than in the last century, and that it is in our interest to adopt this "Web attitude" immediately. The chapter is called "Adopt the Internet Lifestyle" (sad VF), just as your grandparents once adopted the electric lifestyle, that is, TV and water heated by the boiler. Within ten years, "the majority of Americans will have adopted the Internet lifestyle", which apparently means in Gatesian language: connecting to the Web to get news, learn, be entertained, communicate, pay your bills, talk to your doctor, find the Starr report before anyone else, see Sojourner on Mars and other fascinating manifestations of the world of tomorrow. The Web attitude will also be small portable computers that will transmit the shopping list sent by the wife. Because if the next ten years seem familiar to the visionary Gates, the last thirty of feminism have apparently passed him by... It will still be the members of your family using electronic voting to select dozens of possible activities for the next meeting in the Vosges: farting as much as possible to ward off evil spirits, drinking like fish to annoy Mr. Roussel, the neighbor, in short, so many funny ideas that can arise in the event of a fest-noz. It is still, Bill continues, talking to your TV, which, in itself, is quite intellectually satisfying. In short, this "Web attitude" remains very mysterious, when its ancestor, the Rock'n roll attitude sung by another prophet, named Johnny H., seemed infinitely clearer. So there was only one solution left: to ask, as a holiday homework, those (the list is obviously not exhaustive) who are concerned about the Internet in France and elsewhere, this active and thinking microcosm, what the "Web attitude" meant to them. Some declined, others asked for details on Gatesian thinking, and many confessed not having read the book. We can't blame them. What's that? "Excuse me? Are you talking about web bliss? It's a subculture that has developed on the Internet, like a mushroom. Very contagious, but not very poisonous. Delicious even, if you can find the right species. Like many others, society will digest it and make it a daily special, more or less reheated. We are still at the stage of primary release where gigawindoses of graphics only distill nanodoses of information." Louis Pouzin, father of the French Cyclades project, a competitor to the Internet at its origins. "Sorry, I don't understand the question. Besides, I've never heard anyone talk about Web attitude before." Richard Stallman, president of the FreeSoftwareFoundation. "Nothing." Meryem Marzouki, president of the association Imaginons un réseau Internet solidaire (Iris). "The Web attitude? Isn't there a little (tm) or (c) that goes with the term?:) It's the tool that, little by little, allows everyone to find their rhythm in carrying out ordinary daily tasks, as opposed to the "real" situation where we suffer them for questions of schedules, availability of people or geographical distance. The Web seems to me to be becoming more and more human, with all the good and bad sides of the thing!" Grégoire Clémencin, producer at Yahoo! France. "It must be a cathode concept???" Valentin Lacambre, founder of the hosting company Altern. Funny Bill! "In fact, Bill Gates talks about Web workstyle and Web lifestyle, or a transparent and efficient integration of Web resources into daily activities. I believe that the Web attitude can be summed up in the acquired reflex of using the Web at work, or even in everyday life. But the boss of Microsoft has not invented anything in this regard." Jean-Pierre Cloutier, author of "Chroniques de Cybérie", online newsletter. "Not having read Mr. Gates' latest opus, I don't know what he means by this term. The Web attitude, for me, is therefore to let this life develop freely, to encourage this development, to learn to draw resources from it and to contribute to it when possible. We live with the Web as with the elements, without drowning in it but without ever mastering it." Bruno Oudet, president of Isoc France, the French branch of the Internet Society. "It's hard to answer... Obviously, Bill Gates had a problem with the Internet, because he had trouble understanding how to make money with it." Christian Scherer, senior civil servant, co-founder of the Adminet website. "I didn't feel the irrepressible need to read Gates' opus, so I don't know what he thinks about it. My own Web attitude is rather a way of seeing the world through a thousand different glasses, of giving free rein to ideas and projects, and of including as many people as possible in this flow." Bruno Giussani, columnist on the "New York Times" website. "By talking about Web attitude, isn't Bill Gates rather in the process of circumscribing a castrating "Web aptitude"?" Georges-Albert Kisfaludi, art school teacher. "I haven't read the work of Bill Gates, whom I don't consider a great contemporary thinker. If there is a Web attitude, it can only be theoretical, therefore indefinable because it is changeable and elusive. My Web attitude, although rather light, requires moderate consumption with always a digestive aid at hand because too much is not necessary, even if it is sometimes delicious and gluttony would require that we come back to it again and again... Outside of meals, I try to remain normal, and few people, at least I hope so, really suffer from my addiction." Jean-Pierre Balpe, hyperwriter. "If the Web attitude comes from Bill Gates, it means behaving like a spider." Don Foresta, pioneer of video and multimedia art. "Web attitude is when several people all around the world bounce their fingers together quickly enough on the keyboard to avoid them getting stuck to the web previously covered with a sticky layer signed Bill Gates." Maurice Benayoun, artist. "When I read Web lifestyle, I first think of the marketing positioning of part of Microsoft's message. Web attitude? I can't help but think of my daughter who lives in San Francisco and who, naturally, lives a web lifestyle there. Her PC is always plugged in, is part of her natural environment. It's her link with her friends, and the best way to make an appointment is her bank teller, her contact with her shopkeepers, her daily and essential source of information." Bernard Vergnes, President of Microsoft Europe. Hyperthinking! "For me, it's about escaping from ceremony and hierarchy, to appear directly as one is, or as one would like to be. For the moment, the Internet addicts I work with have not seemed to me to undergo any particular behavioral change, they even continue to talk to people who have never connected to the Internet. Yes, yes..." Jean-Christophe Le Tocquin, permanent delegate of the Association of Internet Access and Service Providers. "The Web attitude is thinking of one's reader and being concerned with remaining accessible to the greatest number. It is necessary to avoid this form of technological exclusion which reserves a site only for owners of the Explosaure 6.0 Browser, on a fast computer capable of reading technological fun in record time." Alain Simeray, editor-in-chief of "Lmb Actu", CNRS electronic bulletin. "The Web attitude is to achieve a certain universality in space and a bit of glory through the Web! It is to have more visits to your personal page than some well-known press sites, it is to see your small start-up valued by the financial markets more than some industrial giants, it is also to invest the money that you have not yet raised!" Marie-Christine Levet, director of the Lycos France portal. "The Web attitude is an appetite for freedom. (...) Men are in the process of regrouping in an immense virtual city, where there is the most choice, where the best markets are, including and especially the markets of information, knowledge, relationships and entertainment (...)." Pierre Lévy, philosopher.

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"By using free software, not only do we free ourselves from the logic that the large multinationals of IT are trying to impose, but we also connect with one of the most vibrant centers of the society that is being created, that of distributed intelligence." - Jean-Claude Guédon Professor of Comparative Literature at the University of Montreal, Québec-Science, October 1998. In this hypercompetitive world of technology, software reigns supreme. Today's great fortunes are based on these works created by source code artists. However, a "new" model seems to want to impose itself again and earn its letters of nobility: free software. Back to the future. At the end of the 1970s, when the Apple II computer dominated personal computing, when the IBM PC was only a project in the heads of its engineers, the users of this brilliant little machine had to program their software themselves. More often than not, we met in computer clubs, and on the evening of the meeting, the cracks showed their new creations. Constructive criticism flew, as did requests for product improvement. To speed up the development of applications, artist-programmers offered the source code to anyone who wanted it so that everyone could contribute their ideas and modifications. At that time, software was free, and so was the source code. But things being what they are, instead of wanting to share the fruit of their work, some programmers rightly saw a commercial outlet for their products. Those who wanted a particular game or word processor had to pay for its possession. Improvements came at the whim of the firm or the programmer, and no longer thanks to the enthusiasm of the users. The source code was locked in a cage. The arrival of the IBM PC, the development of "killer apps" such as Lotus 1-2-3, Word Perfect and, later, Microsoft products, helped create a whole new and very lucrative industry, the software industry. Today, buying software is a bit like buying a car with the hood sealed without the possibility of changing the oil yourself, and even less of doing small preventive mechanics. In the early 1980s, Richard Stallman, programmer of the software Emacs (a programming tool available on the UNIX platform), disgusted by the "capitalist" attitude of his fellow programmers, founded the FreeSoftwareFoundation (FSF) which would evolve into the GNU project (Gnu, Not UNIX), to promote the creation of a free and open source clone of the UNIX operating system. The great novelty of this project, the heart of the GNU project, was its license, the General Public License (GPL). Any programmer who wanted to protect his work under this license was automatically supported by the FSF, as long as the source code, as well as the modifications and additions to the program, were made available to all so that they could be either freely reproduced or improved and modified again. Distributed intelligence had just been reborn. A marginal movement at its beginnings, the GNU project began to interest more and more programmers wanting to recapture the spirit of the pioneers of the early days of personal computing. And along came Linux. Linux, THE model. In 1992, while studying at the University of Helsinki, Linus Torvalds, 21, began writing the central kernel of a clone of the UNIX operating system. A simple message in a programmers' discussion group on the Internet announced the birth of what was to become a small revolution within the computer science community. Today, more than eight million computers run on Linux. And their number is growing. Many industry observers see Linux as the only valid tool to counter the dominance ambitions of Bill Gates, the founder of Microsoft, in what is now the new playground of the world's greats, the Internet. In 1997, a short, forgotten essay on the Internet was supposed to put free-source software back on the agenda. Written by Eric S. Raymond, it "attacked" the original philosophy advocated by Richard Stallman. "I believe in intellectual property. I believe in market forces. But the choice that the industry has made, to hide the source code from everyone, irritates me. So let's create a new model where the source code of software is available, while allowing companies to create new commercial versions of the products available under an OpenSource license." OpenSource. FreeSoftwareFoundation. Openness or total freeware. In the large community of programmers, these two models called for confrontation. Richard Stallman, the great apostle of total free software, denied the very foundations of the OpenSource project. Was the free source software movement doomed to failure? No, because despite the disagreements between the two groups, they agreed that it was better to continue efforts to promote free source software to better counter the hegemony of the giant Microsoft. Microsoft: the great Satan October 1998. Microsoft has the wind in its sails, its founder is the richest man in the world. However, a lawsuit brought against the Redmond company by the United States government because of its monopolistic practices shakes Microsoft. "Microsoft bashing" becomes the new fashionable sport in the computer community. Microsoft is no longer popular. However, it is a small service note written by a Microsoft engineer that was to set the powder alight: the "Halloween" document, named so because it was first published on the very day of this holiday. In this document, Microsoft acknowledged the threat that the free software movement posed to the company, and more specifically the arrival of this new player, Linux. Microsoft's entire strategy on the Internet was based on its high-end operating system, Windows NT (now Windows 2000). However, contrary to the plans of Microsoft's executives, it was not Windows NT that dominated the Internet, but Linux. And, worse still, large companies like IBM publicly supported Linux as a valid replacement for Microsoft's products. The solutions to consider to counter this threat? Quickly attack the very credibility of Linux and the free software movement. When the document was published on the Internet, Microsoft first denied everything, then acknowledged that it was only a simple working document written by a junior engineer. However, the list of Microsoft executives who were to receive this working document was impressive and included those who were part of Bill Gates' immediate entourage. Today, the open source software movement has gained its letters of nobility, companies like Dell and Compaq have announced that they will ship their computers with pre-installed versions of Linux. Red Hat, an American company that has based its success on the resale of Linux distributions adapted to the general public, is going public. The Ontario publisher Corel is even offering its flagship software, Word Perfect, for free. There is even a new movement, Open Content, which offers a license to content authors who want to distribute their texts for free on the Internet, while keeping a certain control over their moral rights. The open source software movement is underway, its credibility is no longer in doubt, the quality of products available under OpenSource or GPL licenses is no longer in doubt. Is the future of Microsoft, Symantec, Apple (which recently joined the OpenSource movement) and companies in doubt? Time will tell. Bookmarks Corner FreeSoftwareFoundation: www.fsf.org GNU, not UNIX: www.gnu.org OpenSource: www.opensource.org Open Content: www.opencontent.org Linux: www.linux.org General Public License: www.fsf.org/copyleft/gpl.html The Cathedral and the Bazaar: www.tuxedo.org/~esr/writings/ cathedral-bazaar/cathedral-bazaar.html French version: www.linux-france.org/ article/these/cathedrale-bazar/ cathedral-bazar.html The Halloween memo: www. opensource.org/halloween/

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The world's number one software company is looking to partner with all the new media that serve as access points to the Web. After acquiring a stake in AT&T, Bill Gates' group is negotiating the purchase of Deutsche Telekom's cable networks. What if Microsoft no longer believed in the personal computer? For three years, the American software giant has continued to invest in telecommunications and cable operators, to enter into industrial agreements with manufacturers of digital decoders and game consoles, and to partner with television channels and online information services. Bill Gates, its chairman, has swapped his old motto: "A personal computer on every desk and in every home," for a new leitmotif: "Internet access for everyone from anywhere." It doesn't matter whether Internet users surf the global network from a computer, a television, a new generation Minitel or a mobile phone, the main thing is that they use Microsoft software to access it! This is why the Seattle group is looking to partner with all the new media that could, tomorrow, constitute an entry point to the Internet. "Re-invention" Cable networks are in Microsoft's sights. The latest spectacular operation is the purchase of AT&T convertible bonds, which will eventually represent 3% of the capital of the American number one in telecommunications. In return, AT&T has ordered five million copies of Windows CE software from Microsoft, the light version of its famous operating system - which equips 90% of microcomputers - to run the future digital decoders of AT&T cable networks. Another part of this agreement with AT&T, Microsoft has acquired 29.9% of Telewest, the second British cable operator. Microsoft had previously acquired the British number three NTL, as well as the American number four Comcast, the Dutch-European UPC, and the Portuguese TV Cabo. It is studying, alongside the publishing group Bertelsmann, the acquisition of the cable network of Deutsche Telekom, and is reportedly negotiating the acquisition of the cable division of the British number one Cable & Wireless. Bill Gates is also behind the Teledesic project, a constellation of several hundred satellites that should allow users, from 2003, to connect at very high speed to the Internet network. All the acquisitions made outside the world of personal computers - 92 in five years - remain modest, however. They generally represent less than 5% of the capital of the company concerned, and Microsoft never claims the role of operator. The world's largest capitalization, at 400 billion dollars, and with a cash position of 22 billion dollars, the Seattle company can afford to invite itself into several rounds of funding to monitor the evolution of the various markets. This strategy should allow it to impose its software platforms in the electronic devices used on these new networks. "In short, Microsoft buys its customers," explains Alain Puissochet, consultant at Idate, "which is not very liberal." "A few years ago, Microsoft had, in the same way, made agreements with computer manufacturers, to then impose its operating system," adds Didier Pouillot, also a consultant at Idate. "We want, whatever the means of access to the Internet, digital boxes or PCs, to offer the maximum number of services in our software," defends Steve Petitpas, director of e-commerce and the Internet at Microsoft France. Microsoft's new Explorer 5 browser already includes an e-mail service that offers the possibility of consulting mail on Hotmail, Microsoft's e-mail service. To support these strategic initiatives, Bill Gates has asked his 30,000 employees to "reinvent" Microsoft, 24 years after its creation, even though the company is still in insolent health, with an operating margin of more than 45% and a net profit of more than 30%. An instruction that has for the moment translated into the abandonment of the organization by product lines in favor of a structure by customer categories, with the watchword of the "simplicity" of the products. The rediscovery of the customer has led to a two-year delay in the development of Windows 2000, the time to develop a more intuitive environment. Awakening of the competition This reorientation comes at a time when the Internet revolution is reinvigorating the competition. In the field of business servers, Microsoft sees the progression of Windows NT (35% market share) slowed by the emergence of the free software Linux (17% of the market, according to IDC). In Internet navigation software, Microsoft has caught up, thanks to Explorer, with its rival Netscape, with which it is now on a par. But in e-commerce, the results of its family of sites, built around MSN, are not up to the expectations of progression in the face of the alliance between AOL and Netscape. In pocket organizers, the offensive of the American PalmPilots and the British Psion has taken Bill Gates' firm by surprise, which has seen it lose more than two thirds of the market for operating systems intended for these machines. But the market research companies IDC and Dataquest estimate that Microsoft will have turned the situation in its favor by 2002. In mobile phones, Microsoft is having difficulty imposing the Windows CE standard. The leader in pocket electronic organizers, Psion, and the three main mobile phone manufacturers, Nokia, Motorola and Ericsson, refuse to come under Microsoft's control and have joined forces within Symbian to develop their own operating system, called EPOC. An alliance joined on Tuesday, May 25, by the Japanese company Matsushita. A small consolation, the French mobile phone manufacturer Sagem joined the Microsoft camp a few days ago. This revival of competition could paradoxically help Microsoft's affairs, which will once again face the American courts when its trial resumes on Tuesday, June 1. The antitrust authorities suspect the software manufacturer of having used its hegemony on the operating system market to impose its Internet navigation software, to the detriment of Netscape. Microsoft, which is threatened with a break-up - like the one imposed on AT&T in 1984 - will try to demonstrate that it is, on the contrary, the victim of an offensive on all Internet fronts. The main partnerships - July 1996: creation with NBC of a television channel and an online information service. - June 1997: acquisition of WebTV for 425 million dollars. - January 1998: TCI chooses Windows CE for its new generation of decoders. - May 1998: Sega announces that its new Dreamcast console will use Windows CE - June 1998: acquisition of 10% of the capital of the Internet access provider RoadRunner; purchase of 11.5% of the American cable operator Comcast (one billion dollars). - July 1998: purchase of 7.5% of Thomson Multimedia, with Windows CE license - January 1999: investment of 500 million dollars in the British NTL, and 300 million dollars in UPC. - May 1999: purchase of 3% of the capital of AT&T, for five billion, and of 29.9% of Telewest; negotiation with Bertelsmann with a view to buying the cable network of Deutsche Telekom.

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The Internet is revolutionizing the world of business and enterprise. No, it's not a scoop. But it's a topic that clearly makes a lot of people think. Bill Gates, for example, founder and CEO of Microsoft, whose latest book, Working at the Speed of Thought (1), has just been released in France. At first glance, one might think that the very astute inventor of Windows and Explorer has things to say about communication technologies. Unfortunately, they are not in his book. "You know that your corporate nervous system is efficient if information circulates as quickly and as naturally as human thought... That's enterprise at the speed of thought." Or again: "Microsoft's major goals are: to make computers capable of performances that make them surpass existing systems, to develop machines that see, listen and learn, and to create software that makes their new peripherals work." Those who were hoping for dazzling analyses of new technologies have chosen the wrong book. In fact, Bill Gates has written a management manual, in the style of "I did it, you can do it too." As he explains in the press kit that accompanies his book, its purpose is to "help business leaders understand how they can take advantage of the incredible innovations that are taking place," adding with a candor unimaginable in Europe: "Another part of this book is for employees who are thinking about what they could imagine to make their company more efficient." As in any good training manual, the key phrases ("How you collect, manage, and use information will make you a winner or a loser") are in italics. And, because Bill Gates never loses his bearings, the manual is also a brochure presenting his products. From the initial hypothesis (companies will be saved because the PC and the Internet will save them time), we slide to a more precise message: it is strongly advised to equip oneself with Microsoft as did Compaq, Marks & Spencer or Coca whose triumphs Bill Gates tells us about. At the very moment this book was published, the Cluetrain Manifesto (2) appeared on the Web, a text with a vengeful tone which affirms that the Internet transforms the content and nature of corporate communications, and that one can do business and still be rebellious. The home page starts off very strongly: "People of Earth, a powerful global conversation has begun. Thanks to the Internet, people are discovering and inventing new ways to share knowledge at blinding speed. Markets are getting smarter, faster than most companies..." The political-economic message of the manifesto (developed by Rick Levine of Sun Microsystems, Christopher Locke of Entropy Web Consulting, Doc Searls of the Linux Journal and David Weinberger of the Journal of the Hyperlinked Organisation), a little difficult to parse for a European, seems to be part of that friendly self-managed and new age neo-capitalism specific to the American West Coast, where rebellion against forms functions as a cause and whose bête noire is...Bill Gates. After only fifteen days, the Cluetrain site already has 60,000 page views from Internet users in 75 countries and 500 signatures, including those of Adobe Systems, US Interactive and OpenSource Initiative. Among the 95 theses of the manifesto, we will remember that "markets are made up of human beings, not demographic sectors. Hypertext links subvert hierarchy. Human communities are based on discourse. The community of discourse IS the market." Cluetrain also gives its supporters a "to-do list." From the most unexpected: "Tell stories: to make the company a family," to the most audacious: "Share the wealth: distribute shares to employees." American capitalism almost trembled. (1) Robert Laffont, 139 F (2) www.cluetrain.com. According to a quote, about a company in decline: "The "clue train" (train of clues) stopped four times a day for ten years without them reacting.

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Linux, is it hard to install? Linux is no more complicated to install on your computer than any other operating system. In fact, very few people have ever had to install Windows 98, which comes standard with the vast majority of commercially available PCs. But be careful: even if the most recent Linux distributions have become relatively easy to start up, the slightest hitch forces the user to type obscure command lines that are difficult to master. In case of doubt, and if the sight of a command such as "gzip -r pouet! tar -xvf" makes you nervous, it is better to opt for an install party; where regulars will take care of you voluntarily. Where to find Linux and at what price? At most computer hardware retailers. One of the most widely distributed versions of Linux, RedHat, costs around 300 F. Mandrake, sold by the French company Mandrakesoft, is available at a similar price. But Linux is first and foremost free software, which means that it can be duplicated freely. In this case, you just need to get a CD from a friend and, completely legally, install Linux on your own computer for zero francs. What software does Linux come with? The Linux software library is very comprehensive: communication tools (messaging, web browsing with Netscape, etc.), office software (StarOffice includes a word processor, a spreadsheet, and a database). On the other hand, despite a few releases in recent months (including the gore hit Quake), gamers will be frustrated by the few titles available on Linux. For more information: ROOTard Guide for Linux: uhp.u-nancy.fr/linux/rootard /Guide\_Rootard.html Linux Center: www.linux-center.org/fr/ Association for the promotion of research in free computing: www.april.org Association francophone des utilisateurs de Linux: www.aful.org Da Linux French Page: actualités linuxfr.org/news

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The desire arose, like that, as if it were obvious, one Friday evening. Install Linux, on a personal computer. To see what the beast really has in its belly. To see, after many rumors, what the famous Linux "spirit" is all about, the same one made of helping hands and rebellious spirit which, they say, reconciles man with the machine, and upsets economic models. Since free becomes queen and disinterested mutual aid the rule. But also to escape the dreadful aesthetics of Windows, and the crashes that go with it. The experience will become an adventure. Friday evening, then. A good part of the night is lost on the Internet, looking for all kinds of information. And there, damn it, the rumor was true! A global creation by nature, designed by hundreds of little hands and sacred heads in the four corners of the planet, Linux only lives through the network. It is the international of artisans against the multinational IT companies. On the Net, all the information is there, at your fingertips. The profusion could even become annoying. In one night, the accelerated training transforms the novice's apartment into a neighborhood printing shop. The inkjet spits out dozens of pages, at the risk of seeing the mind get quite confused. Because, first problem, experienced Linux users have an unfortunate tendency to believe that apprentices already know a minimum of things. Like the meaning of the barbarisms "prompt", "root", "kernel"... So many words that mean nothing to the uninitiated. And yet, they will have to assimilate, and quickly. Saturday morning. It's the opening of the stores. The enthusiast goes hunting for a "Linux distribution". Because, yes, although "software free", Linux has a cost. Whether you load it via the Net for hours if you connect by classic modem, or you opt for the purchase (modest, very often) of a CD-Rom, you have to pay a few dozen francs. Unless you go through the "install parties" (read opposite), or legally copy the version of a friend, who would have the advantage of combining generosity and know-how (1). But in the absence of said friend, you have to sort it out alone. There, the confusion continues. Which version to choose, with which programs, which graphic interface? Currently, about ten "Linux distributions", quite similar, are competing for the market. Among them, for the Mac: Linux PPC; for the PC: Suse, Debian, RedHat (on the way to becoming the standard), or Linux-Mandrake, concocted by a team from Caen. The latter, suggested the day before by a stranger on IRC (live chat on the Net), would have the huge advantage of offering an easy installation, equipped with a graphical environment of all efficiency: KDE. So, without further ado, we rush to get the thing. The weekend is only just beginning. Saturday, 2 p.m. It's the big jump. No question of erasing the Windows (or Mac) data from the hard drive. We have to PART-I-TION-N. Child's play, they say in the "howto" (the "how-to" manuals available on the network). A real fright, rather. The operation consists of formatting one part of the hard drive, which will host Linux, and keeping the other intact, where the PC or Mac files are. The scene only lasts a few moments but is worth its weight in anguish. Miraculously, the mission is accomplished without damage. Linux is ours! 3 p.m. To be on the safe side, we reread the manual provided with the Mandrake. We feel our first commands, we tell ourselves that, that's it, finished with the reductive computing of MacOS and other Windows; we almost imagine ourselves as computer scientists, and self-taught at that! Alas. We're going to have to come to terms with it. Linux can't be tamed like that. Its strength, being able to rummage around in the mysteries of the system, has one requirement: to get rid of the intuitive habits acquired with other operating systems. In short: learn to read the manuals. Because, here, even if it's easier compared to what could be done just a few months ago, the installation is in no way automatic. The disaster will last, last, last, and the whole afternoon will be spent on it. Here, the sound card is not recognized. There, it's the mouse, then the modem. Here and there, the monitor resolution fails. And then there are these commands, typed blindly, these "/usr/X11R6/bin", these "XF86SetUp", these "adduser", which add to the confusion. Not to mention these error messages from another world: "waiting for x server to shut down mach64ProgramClkMach64CT: Warning: Q 10.66666667". Cold shower. Enough to tear your joysticks off. But the fight continues. The machine will not win so easily. This is where the Linux "spirit" operates. It is the devil (Bill Gates?) if every problem encountered does not already have its solution, dissected somewhere on the network. You just have to dig, so have time. Or find the right person to talk to, on the forums or IRC. Essential, too, and almost obligatory: a keen curiosity. Without it, there is no salvation. Sunday noon, finally, it's the long-awaited moment of the "startx" command. This moment when Linux, until now in terminal mode, switches to familiar territory. Where the environment becomes graphical with windows, recycle bin, task bar, and use of the mouse. This culmination which will, or will not, make Linux a general public operating system. "startx", therefore... Bingo: the KDE environment gets going and the adventurer savors his victory. All the necessary programs are there, or available on CD-Rom or on the Net. And all in free use. Word processors, spreadsheets, web browsers, mail programs, photo editing, nothing is missing or almost (games and cultural programs are absent, however). We are there, finally! Right in the middle of it! And what the rumor was spreading was, once again, correct: stability, speed, real multitasking, virtual desktops. God exists! And yet, not so fast. Many pioneers are already crying heresy. With good reason: around the temple, merchants are setting up shop more and more openly, very happy to finally be able to free themselves from Microsoft's stranglehold. The more Linux gains influence, the more the big computer and software manufacturers rush towards it. At the risk of distorting the very essence of the beast: its open, free and united spirit. But, above all, according to several testimonies, quite a few new followers would drop out more or less quickly. Because Linux is not (yet) perfect. Thus the KDE graphical interface: it is ready, certainly, but not very pretty. The demanding will rather turn to another environment, like Gnome, one of the most beautiful, but still buggy. Thus its programs: with a few exceptions, they are, for the time being, often less complete than those running under Windows or Mac. Why? Because they rely solely on the goodwill of their authors and their users, who report bugs to the first and explain their wishes to them. Born in 1991, Linux remains a work in progress. Not finished, but already promising, already there. And that is all its greatness. (1) Another solution: draw on the CD-Roms of computer magazines which sometimes deliver Linux.

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Today, we are talking about ten million users of the free Linux operating system. Schools have installed it, universities have done the same, companies are starting to believe in it: after Compaq, IBM, Novell or Oracle, Dell, the number one in direct computer sales, has just taken a minority stake in the capital of RedHat, the main Linux supplier. And more and more individuals are convinced. Linux is the story of an operating system (this basic program that controls all the computer's applications), alternative but on the way to becoming a reference model. Competing more and more seriously with Microsoft's Windows. With one difference: Linux is free software. Through the network, the operating system created by the Finn Linus Torvalds eight years ago was developed by thousands of programmers, all volunteers. And it continues to evolve since its manufacturing secrets (its source code, that is to say the lines of programs that make it work) are available on the Net and anyone can contribute to its improvement. But a big question remains. Is this system easy to install? Answer in two stories.

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Last February, the Californian company Free PC announced that it would deliver 10,000 Compaq multimedia PCs free of charge to as many Internet users, starting in the second quarter. The condition: these Internet users must correspond to a very specific demographic profile, the definition of which has never been known. No fewer than 500,000 people filled out the application... in the first two days of the offer. The price to pay: agree to be bombarded by targeted advertising banners in a strip occupying 20% of the surface of their screen and give up 2.1 GB (gigabytes) of disk space to store the ads that will be displayed. The "lucky" winners must also accept the offer from Free PC's partner, the access provider NetZero, and stay connected 10 hours per month, just to renew the ads that fill the screen. They have no choice but to plug in: if they don't, the system will do so automatically as soon as they turn it on. Small detail: these guinea pigs cannot browse at more than 33 kbits/s, even if they have a 56 kbits/s modem... some bandwidth has to be devoted to transporting advertising. Even if the general public doesn't always realize it, the myth that "everything is free on the Internet" is taking a hit. For the first time in history, the Internet makes it possible to easily, efficiently and inexpensively target specific clienteles and to reach them in their private homes. These guinea pigs not only agree to have their profile "sold" to advertisers, but they also give them their browsing habits, information that is very, very expensive in the digital world. These advertisers will even be able to boast of reaching a targeted and grateful clientele. And these services are very popular! After five months of operation, NetZero, which offers a free Internet subscription in exchange for advertising, has already reached more than 500,000 users, which places it in the top ten largest access providers in the United States. In Great Britain, the free access provider Freeserve has dealt a well-felt uppercut to the giant America Online (AOL), the e-commerce key site informed us. Launched four months ago by a distributor of household appliances, Dixons Group, Freeserve has reached a million subscribers, double that of AOL, until then the number one in the country. And to add insult to injury, Freeserve has achieved this success at a time when AOL was on a monster marketing blitz. Like many others, Freeserve relies exclusively on advertising sales and e-commerce to finance itself. As the Keys to Electronic Commerce points out, the Internet seems to confirm the theory of the "attention economy" put forward by Harvard economist Michael H. Goldhaber. According to him, the classic law of supply and demand no longer holds in a society already characterized by an overabundance of information. We are not so much entering an information society as an attention society. Strategies The strategies for attracting attention are endless. Comet Cursor, for example, is an applet that turns into an advertisement when you visit a particular site. The company Fax.com offers its 100,000 subscribers a telephone number allowing them to receive and send faxes free of charge via their e-mail address. Disguised freebies exist in other forms on the Internet, and have done so for a long time. The use of beta testers is a good example. Software companies distribute free beta, or imperfect, versions of their products and other small "gifts" to computer enthusiasts. In exchange, they give some personal information and agree to notify the company of any bugs they find. Microsoft, for example, can count on several hundred thousand beta testers for each new product it launches. Fortunately, there is one big exception to the rule, and that is free software. The Linux operating system and the Apache Web server are the best examples. Used by more than 50% of Internet sites according to a survey conducted by Netcraft, Apache was designed, developed and enriched by an army of volunteer programmers who dream of dethroning commercial companies. Why give your time for free on such an ambitious, even utopian, project? It's because of the human factor, emphasize the authors of the book Apache-The Definitive Guide, Ben and Peter Laurie: - They don't have to worry about the end user and answer questions from newbies, an activity loathed by almost all programmers; They meet people as passionate as they are, share their experiences and exchange with other converts; - They want to "stay in the loop" and be at the cutting edge of computer developments. Then comes the possibility of selling the consulting expertise they have deployed; - Many remember the not so distant time when computer whizzes left university to found a small company called... Netscape. A perfectly gratuitous gesture, you thought? Apache Bookmarks Corner:www.apache.org Audiences to Buy or the Attention Economy: vianet.infinit.net/News/Articles/econatt.htmKeys to Electronic Commerce:vianet.infinit.netComet Cursor:www.cometsystems.com Free-PC:www.free-pc.com/ Life in Linux:www.mmedium.com/dossiers/linux/ Netcraft:www.netcraft.com/ NetZero:www.netzero.com andreb@toile.qc.ca

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The devices have arrived, the connection is established, Quebec schools are entering the digital age as best they can. The big question now is: what do we do with these tools? Acquiring the hardware and software, creating laboratories, finding a service provider, that was the easy part; the hard part now is integrating these instruments into the school. Professor in the department of comparative literature at the Université de Montréal, Jean-Claude Guédon has a strong opinion on the subject: "It is not enough to put hardware in schools to guarantee a better education," he wrote in an electronic exchange with Le Devoir Over the past three years, public funds dedicated to the integration of schools with new information and communication technologies (NTCI) have made it possible to add approximately 100,000 computers to schools, most of them new. As a result, the number of students per computer has dropped from 18.6 to nine. The five-year plan of 320 million launched by the government in 1996 was largely devoted to the purchase of equipment. New equipment mainly purchased at a rate of about sixty million per year. Jean-Claude Guédon is not impressed by these figures: "Instead of buying expensive hardware and hoping to lazily solve a complex problem by sending a lot of money to Redmond (where Microsoft is located), [ ] there are solutions that allow equipment to be reused, that only require the purchase of a few not very expensive devices as servers, and that above all require the creation of service needs [ ]. This solution, as we know, is based on open-source software, of which Linux is the best known." A completely different matter But that is not the most important thing. Buying computers is one thing, integrating new technologies (NTIC) into school life is another. The fundamental question, according to Mr. Guédon, is how this integration will be achieved, and in what ways: "When we think of the time it took for educational institutions to finally adopt Gutenberg's printed material (at least three centuries after its invention...), we can tremble at the thought of what might happen, especially if we give ourselves the illusion of having solved the problem by piling up the hardware," he adds. Unfortunately, schools have less time than their ancestors. Much less time to respond to what he calls a necessity: "ICTs are the instruments of the new writing, hypertextual, multi-modal, multi-media. Consequently, any school, college, or university that does not learn to quickly integrate ICTs into its teaching condemns itself ipso facto to marginalization and slow death. This would be like teaching our students to write with a quill pen in the era of the typewriter." Consequently, the professor continues, it will be necessary to integrate these instruments into the art of writing with words, images, sound, animation. "It is about making these instruments the levers, which have become transparent, of an enlarged thought [ ]; it is about learning to work and collaborate in new ways; it is about learning to publish too, on the Web in particular; finally, it is about learning to explore, to look at the world, to become a navigator rather than clinging to the role of a surveyor." Student navigators who will quickly find the way to virtual communities: "Equipped with the new writing, connected, the student will, of course, constitute various communities of which the "chat" gives us a first, albeit poor, idea, writes Mr. Guédon. What will happen in this area in the next two decades has every chance of being prodigious. Students will invent dozens of forms of virtual playgrounds. Now, if we think a little about the educational process, the real appropriation of a course happens at that moment, when the students talk among themselves about a job to do, a problem to solve" From broadcaster to tutor Work in perspective. Especially for teachers, whose role is called to change. From "mass broadcasters", they will become tutors, support workers ready to help students when they need it: "This is indeed a reversal of the situation that many teachers are likely to experience badly, especially if they are not sure of themselves because of their lack of computer skills." And the students? How can we get them to use these tools appropriately and effectively? It is not because a child has access to 50 TV channels, or has access to the network of networks, that he will suddenly start to be interested in science, the arts and literature, to visit virtual museums and to learn foreign languages. Jean-Claude Guédon acknowledges this, while making a distinction between television and the Internet. The former, he explains, stems from a phenomenon from the 19th century, submission to time: "The 19th century saw the proliferation of places and instances where the timetable became the dominant structure: for example, the factory and then, within it, the assembly line and the school. Owning a luxury watch became a necessity. Print, in turn, put itself at the mercy of time by developing and massifying the everyday, and literature itself, through the serial (Balzac, Dickens, etc.) submitted to the rules of temporal scansions." The arrival of new media was also marked by submission to time. [ ] The order of the collection that dominated the 18th century and that had found its maximum expression in the library, had been silently subverted by temporal programming, the program. A progressive, silent and sinister cultural revolution in short. Programming at school is added to that of the factory, the radio, in everyday life, on television and locks the lives of our contemporaries into a whole that gives the notion of freedom a very ghostly allure." For Mr. Guédon, zapping and surfing are two completely different things: "By zapping, we jump from one program to another, but we remain registered in a program; by surfing, we enter into a logic of deepening, broadening, analogy, even confusion."

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The omnipresent Microsoft or the free software Linux? Even in the field of education, the question of "which system for which school?" is beginning to arise. On one side, the power of the American firm. On the other, the emergence of another, less expensive solution, which is eating into market share in school equipment. Even if the avowed goal is the same: to help young students progress in the ideal world of multimedia, a quick overview is necessary. "There is room for both" by Philippe Mero, head of the education-research department at Microsoft-France. "No one has a universal answer on how to equip schools. We talk about the use of Windows and the emergence of Linux as a competitor, for me, there is room for both. And that requires everyone to be excellent. "We approached this sector from an experimental point of view with Graines de multimédia, two years ago, by equipping dozens of primary schools, in partnership with a computer manufacturer and software publishers. Now, we offer adapted solutions, in order to reduce costs for schools. Thus, for example, town halls can globalize their purchases for schools, benefiting from a significant price reduction of 30 to 40%. "Linux is indeed developing well, but I imagine it to be a system that will be used more in higher education, because there are very concrete applications that Microsoft applications cannot always compete with. But in any case, the primary objective is still to offer tools, to make them familiar to children, not to make them Linux or Windows specialists." "Linux has more educational value" by Anne Vanderlove, computer engineer, parent of a student at the Truffaut school, Paris XVIIe. "We have been helping teachers recover decommissioned computers for several years. And today, as the premises are too small, it is impossible for us to create a computer room, so we would like to network the computers. "To do this, we chose Linux. First, there are technical arguments: Linux is quite well adapted to designing a network. Then there are financial arguments: if we wanted to switch to a network architecture under Windows, it would cost a fortune. However, for the moment, we do not have financial aid, even if we are going to submit a request to the town hall. Everything is done with our own means. Free software, if it is not necessarily free, is still inexpensive. And offers a reliable and robust solution. "On the other hand, in spirit, using free software rather than Windows seems to us to be an important step. For a civic reason, since today we sometimes use pirated, copied software. Which is not necessarily a good example for children. In addition, with the Linux world, we enter a circle of users where the source codes are free and accessible. For children, for their education, I find it important that they use this type of software that they will be able to find and develop later, by programming in middle school, high school or university. There is a real educational interest that goes beyond what Windows solutions could provide." "Fight against all monopolies" by Guy Pouzard, Inspector General of National Education, President of the Information Technology and Communication Technology Commission of the General Inspectorate. "We have so often railed against certain State monopolies that we should not fall into the trap that would have private monopolies be more valid. This is not easy, because this debate is almost always obscured by partisan positions for one or the other, which immediately make arguments based on simple reason suspect. "But I will continue tirelessly to plead for the presence of several different systems in schools, as well as different authoring software, the only way to prevent the commercial and financial monopoly of a firm from resulting in the catastrophe of "single thought". Would freedom of thought still have any chance of existing in this "brave new world"?"

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New Internet users (and even the most seasoned) will be happy. Québec Science has just launched the 4th edition of the Internet guide entitled Le Guide 1999: tout savoir pour être bien branché, vois sur et profiter d'Internet. The little guide has been revamped by authors and journalists André Bélanger and Jean-Hugues Roy and contains new information, notably on free software like Linux and using the Internet to make long-distance calls... without paying! Sold in newsstands and bookstores for $4.95 (plus taxes), the little guide, this time yellow, will fly away like hot cakes.

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Compaq, IBM, Novell and Oracle have taken minority stakes in Red Hat, the leading provider of the free Linux operating system. Financial terms of the deal were not disclosed. Other major players in the global computing industry, such as Intel and Netscape, had already invested in Red Hat, providing increasingly open support for Linux, the free software (i.e., the "source" code of which is freely available on the Internet) that competes with Microsoft's Windows NT operating system. The software has also received support from computer manufacturers such as Hewlett-Packard and Dell Computer. More than 10 million users already run their computers with Linux, particularly in the server world, with more than 17% of this market according to the IDC institute.

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When the computer manufacturer IBM decides to join Linux, Microsoft can tremble. Big Blue confirmed yesterday that it would sell computers equipped with the alternative operating system (OS) to Windows, and gradually adapt most of its software. Initially, the machines concerned will be systems intended for businesses. Microsoft therefore has reason to worry: Linux is establishing itself as the main competitor of its professional (Windows NT) and consumer (Windows 98) OS. Unlike the programs sold by Bill Gates' firm, Linux is "free" software, meaning that its users can copy it, modify it, and access its "source code", its manufacturing secrets. Thousands of volunteer programmers work around the world on the development of Linux. Last year, the market share of this operating system increased from 6.2 to 17.2% on business servers.

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Free software threatens the supremacy of Windows, Microsoft's operating system (OS): Linux is an open OS, whose source codes (the recipe for making software) are shared and distributed freely. A system constantly modified and improved by thousands of volunteer programmers around the world. It was a Finnish student, Linus Torvalds, who, in 1991, at the age of 21, invented this adaptation of Unix for PC. Torvalds was inspired by GNU (Gnu's Not Unix), a pioneering project that aimed to guarantee the freedom to share and modify software. Today, Linux runs several million computers worldwide. To the point that the heavy Windows, often criticized for its abuse of dominant position, pales in comparison. And Linus Torvalds, based in Silicon Valley, is seen as the anti-Bill Gates. Readers of Libération were able to ask him questions on the newspaper's website. Below are the main excerpts. Can Microsoft "kill" Linux? Is Microsoft able to slow down or harm the development of Linux, by instilling its proprietary protocols in the software to bring Linux back to its own standards? I don't think Microsoft is really capable of attacking Linux, but we must be attentive to what they will do. It is not enough to release new protocols, they must also be compatible with previous versions of Linux, and Microsoft cannot impose protocols much more complex than those of Linux. Microsoft cannot force everyone to update their installations at once. A complex software? Linux is a system inspired by Unix, a reliable, powerful, and rather complex system. Do you think it can be used by an average user? Unix is not complex. It is in fact a very simple system, infinitely simpler than Windows. The problem is that people are used to Windows and think it's easy to use, while Windows is full of rules that don't make sense, like having to save a document before printing it [...]. All Windows users are no longer aware of what its rules involved: years of practice and a really hard learning curve. Should we dance Java? What do you think of Java, the universal programming language developed by Sun, another alternative to Windows? Basically, Java is an excellent idea, but I fear that Sun has destroyed its potential by being too protective of it. As it is, this language is too closed. [...] It's a shame, because the idea of a universal language is a good one. Java is still alive, but now it's almost only of interest to server users. Personal computer users have returned to Windows. Too bad. Linus, a "free technician"? Do you regret not having been able to personally claim a share of the Linux market? How do you feel about the "casino" atmosphere of Silicon Valley? I have never regretted not doing the marketing side of Linux or trying to sell it myself. It's something I don't really care about. I prefer to do the technical side, it's more fun. As for Silicon Valley, it's really a stimulating place. Nothing to do with a casino, in my opinion. It's more a place where money and technical expertise are concentrated, and one feeds on the other. Investors want to make more money and they are willing to take risks because they hope that these risks will make them rich one day. In return, this allows technicians to work freely on innovative ideas that would not find funding anywhere else. As a result, it is a very dynamic place, allowing a multitude of very exciting technical developments. A megalomaniac creator? Aren't you embarrassed that you named Linux after yourself when, without GNU, Linux wouldn't be an operating system? Why should I be embarrassed that I called the system "Linux"? There are lots of programs, made by other people, that run on that operating system, few of which are GNU software. [...] We say "Windows" and not "Office/Windows". Similarly, we say "Linux" and not "GNU/Linux", "X11/Linux", or other such oddities. Linux without Linus? Would it be the end of Linux if you stopped working on it? If I stopped tomorrow, Linux wouldn't die. Simply because there are too many people who already use it, and too many people who know it intimately. There aren't a lot of people who can take my place at the helm of Linux, but there are some. Don't worry, Linux will still exist even if I get hit by a bus.

## ###ARTICLE\_START### ID:654

TOLL-FREE COMMUNICATIONS Calling the other side of the world is great. Being able to do so for the price of a local call would be even better. This is precisely the promise that already appears on advertisements for strange devices that look like answering machines, sold for around 1,500 francs, such as the Aplio Phone. Do you think it's too good to be true? You're both right and wrong. Wrong, because the technical possibility is real: by digitally encoding the voice, then routing it over the Internet, it can in fact be sent to the antipodes almost instantly, for the almost zero price of an e-mail. But you're right, because the process requires compatible coding-decoding devices at both ends of the line. Few individuals are prepared to pay the expense of such equipment. On the other hand, companies have started to market the process to specific destinations: an antenna is installed in Paris, another in San Francisco... or in Ouagadougou, then subscription cards are sold. The buyer calls a number in Paris, the company then connects via the Internet to its foreign branch, and there you have an international call that actually only costs two local calls. It works... but not always very well. When the Internet pipes are clogged, the conversation can be choppy, or punctuated by long silences. Nevertheless, the offer is already listed in the catalog of all companies offering CTI (computer-telephony integration). The telephone operators who have a good reputation are turning up their noses while admitting that they are working hard on the issue. Indeed, if such conversations were carried out over high-performance networks instead of the ordinary Internet, the technique could gradually replace calls over the traditional switched network. Big savings in perspective for the operators... and therefore, in the long term, for the subscribers. VOICE INTERFACES The telephone should not be the only device to lend you an attentive ear. In 2001, as in the Kubrick film, your computer will be able to talk to you, listen to you, and even, to a certain extent, understand you. A pioneer in voice recognition, IBM has been successfully marketing various software programs for dictation aloud for several months, including Via Voice. For all professions where very similar texts must be written all day long (doctors' prescriptions, legal proceedings, etc.), the microphone has shown that it can replace the keyboard... when connected to a powerful computer, equipped with an advanced spell checker, and after a few adjustments to identify the voice of a specific person. Now part of computer habits, voice recognition is undoubtedly destined to become increasingly important. As a sign of the times, Intel has emphasized the special skills in this area of its future Pentium III; and Microsoft recently invested in a Belgian company specializing in the field. Some people are dreaming of introducing voice recognition into the most diverse devices, such as kitchen appliances, which are supposedly difficult to handle with wet hands. In the meantime, we can already note the existence of a few mobile phones (notably from Matra, Philips and Pioneer) capable of calling any of your friends as soon as they hear you say the right name. From there to predicting the total disappearance of keyboards, buttons and handles, there is a step. The killjoys will point out that for several years now, it has been possible to control a Macintosh by voice... without the technology ever having proven its real usefulness. No matter, a computer equipped with a listening ear will undoubtedly be easier to sell to the many people who are permanently allergic to keyboards. REMODELED COMPUTERS What arguments will the computer sellers of the year 2001 be able to invoke to convince the last holdouts? Well, this time, they will finally be able to find something better than the litany of "pluses": faster (over 500 MHz), more powerful (especially with the introduction of DVD-ROM instead of CD-ROM), with more memory (over 64 MB)... All this will be true, of course, but above all, the transition to the third millennium will be accompanied by some changes in the architecture of the machines themselves. Microsoft also announced, when Windows 98 was released, that this version of its operating system would be the last to concern itself with the architecture of PCs as it had been developed in the 80s. In other words, the word "compatible", which had done so much for the construction of the Microsoft empire, will disappear at least for a while from sales pitches, and with it some vestiges of a glorious but bygone past. We are thus witnessing the end of ISA connection slots, in which electronic cards (modem, graphics accelerator, etc.) were plugged for a long time; this should be done relatively painlessly, this ISA connector having been completely supplanted by PCI slots, better adapted to the requirements of Plug Play. The evolution of the connections, at the back of the machine, will have more serious consequences. The serial and parallel ports, to which modems, mice and printers were connected for years, will disappear in favor of USB and IEEE 1394 connectors (also called Firewire or I-Link). The first allows the "hot" connection, without restarting the machine, of the most diverse peripherals; the second allows speeds of 50 MB/s and more, particularly adapted to digital video. As for the laptop of the year 2000, it will be flatter (between 2.5 and 3 cm), lighter (barely more than a kilo), and above all will no longer need to be wired: its infrared or radio interface will ensure the necessary communications with peripherals, in particular mobile phones. GIFTED PROCESSORS At the very heart of new computers, it is not essential to claim to revolutionize everything. Thus, the successor to the Pentium II, first announced under the code name Katmai, will simply be called... Pentium III. It should appear during the first half of this year, and reach a frequency of 500 MHz. Intel of course plans to install the newcomer in the most powerful desktop machines, while the low-end will have to make do with a modest Celeron processor... at 366 MHz, all the same. As for workstations and servers, Intel has a specialized processor for them, the Pentium III Xeon, also clocked at 500 MHz. Routine, really. In accordance with the principle laid down in the mid-1960s by Gordon Moore, one of Intel's founders, the power of microprocessors doubles roughly every eighteen months... at Intel at least. Because rivals are having a hard time keeping up. The stock market recently caused AMD's share price to fall by 19% in a single session, when the latter's lackluster results were announced. The foundry, which had so brilliantly entered the entry-level segment in 1997 and 1998, is no longer able to meet demand, and must cede part of this ground to Intel's Celeron. This is because processor production lines are becoming more and more expensive, as silicon etching becomes finer. By the year 2000, we will go below the 0.2 micron mark, and Intel plans to reach 0.13 microns in 2002. Finer engraving means chips that can be forced to a higher rate without them heating up to the point of melting. But the computer industry is approaching the unsurpassable minimums: the wavelength of X-rays, the width of molecules. To go even further, it will be necessary to change materials (IBM, in particular, is working to replace the aluminum in electrical circuits with copper, which is more conductive), perhaps to develop new technologies, and in any case to invest in ever more miniaturized equipment... and more expensive. With the disappearance of other players in the sector, competition on the processor market is therefore living its last years. FREEDOM SOFTWARE Fortunately, there are still a few free-snipers who are still resisting the invasion of standardized computing. These disappointed people with the expensive progress are tired of paying high prices for updates and computers that are ever more power-hungry, so as not to be left out of progress. The computer industry in general and Microsoft in particular have made many enemies by forcing the purchase of heavy, complex and expensive software to customers who only wanted to meet basic needs at the best price. On discussion groups, the grumbling of those left behind by computer progress has always been accompanied by the exchange of a thousand and one recipes that allow them to avoid unnecessary expenses. But when these rebels are also programmers, it goes much further: they write themselves, sometimes together, the software they lack, and distribute it for free, accompanied by their listings. Any programmer can thus improve the code they use, then publish in turn the improvements they have made. This is the guiding principle of the FSF (FreeSoftwareFoundation), founded in the 80s. A few months ago, Netscape created a surprise by joining this initiative, and made public the source code of its navigation software, Communicator. Long of an anecdotal importance, free software is starting to seriously interest the industry, especially since it has a reliable and powerful operating system to defend its colors: the astonishing Linux, a clone of Unix for traditional PCs, created over the months by a group of computer geniuses, including the charismatic leader of the project, the Finn Linus Torvalds. Almost all specialists affirm that Linux is at least as reliable as Windows NT... but in addition, this poor man's Unix is completely free, while Microsoft's product costs several hundred dollars per equipped workstation. Still very rustic and difficult to use, Linux will probably not be the one to beat Windows. On the other hand, it is very possible that it will carve out solid positions in sectors where reliability and power are more important than ease of use: banks, proprietary networks, major scientific or industrial development projects. Several companies are therefore seeking to make their mark on this sector. This is particularly the case for Intel, which has taken a stake in Red Hat, publisher of the most widespread version of Linux. OMNIPRESENT ADVERTISING The Internet community is increasingly the object of interested goodwill, independently of the new activities and commercial exchanges that it generates. This is because it represents a prime target for advertising, which is more present on the Net every day. In France alone, revenues from Internet advertising have increased by 127% in one year, according to a study carried out by the Internet Advertising Bureau with Price Waterhouse Coopers. This represents a total of more than 37.5 million francs. Main form of display of advertising on the Internet: banners that decorate the web pages, followed by sponsorship which is starting to develop. Moreover, advertising adapts to all new media. It now appears in the form of posters in free software or "freeware", and even under the mouse pointer, which takes the appearance of the advertiser's logo. ONLINE JOBS The Internet is also a vector of job creation. The Markess International firm estimates that 250 small businesses have been created in France around Internet technologies, employing 12,000 people in total for a turnover of 8 to 10 billion francs. And then, the global network is increasingly asserting itself as a gigantic database at the service of the job market. Not only because a growing number of recruitment agencies, classified ad offers and temporary employment agencies offer their services on the web. But also because it is becoming one of the preferred search tools for companies looking for employees. This is confirmed by a recent study by Atelier, the Paribas technology monitoring center. According to its results, the global network is shaking up the recruitment market, particularly in the United States, where online recruitment is experiencing exponential growth: in 1997, 37% of companies hired on the Internet; 96% will do so in 2001. A trend that benefits job seekers more than traditional intermediaries... who are forced to adapt. INTERNET REDESIGNED The downside of its success is that the Internet is invaded by amateur Internet users and advertising is slowing down, becoming clogged and saturated. The scientific and academic community, which was so relaxed on the network of networks before the Web arrived, is tired of riding bumper to bumper on the so-called information highways. She is calling for a network that is a hundred times faster and more secure, and that would be reserved for her. The name of this dream: Internet 2, quite simply. Vice President Al Gore hastened to make it an electoral theme, and affirms his desire to build in the United States "the most advanced research and education network in the world", with a great deal of fiber optics. A very fine electoral promise: at the desired rate of 100 Mbps, the equivalent of more than 10,000 paperback books could be exchanged every second from one end of the United States to the other! Enough to allow the permanent updating of the most gigantic databases, full-screen video, the distribution of fractal calculations between researchers' machines... But it is not just an electoral promise. Technical tests have already begun at a university in Illinois, under the patronage of the computer industry, led by IBM and Cisco. And more than 130 American universities have already joined the project. Resolutely elitist, Internet 2 should not be linked to the Internet of Mr. Everyman (contrary to the wishes of the NGI project, "Next Generation Internet", which intends to equip the ordinary Internet with equally ambitious technical possibilities). Academics and scientists would thus get rid of pirates, spies, jokers... and even the business world. Hard to believe in the land of free enterprise. Unless it is a question of stimulating, through emulation, a huge private investment in similar techniques, this time intended for the general public.

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TOLL-FREE COMMUNICATIONS Calling the other side of the world is great. Being able to do so for the price of a local call would be even better. This is precisely the promise that already appears on advertisements for strange devices that look like answering machines, sold for around 1,500 francs, such as the Aplio Phone. Do you think it's too good to be true? You're both right and wrong. Wrong, because the technical possibility is real: by digitally encoding the voice, then routing it over the Internet, it can in fact be sent to the antipodes almost instantly, for the almost zero price of an e-mail. But you're right, because the process requires compatible coding-decoding devices at both ends of the line. Few individuals are prepared to pay the expense of such equipment. On the other hand, companies have started to market the process to specific destinations: an antenna is installed in Paris, another in San Francisco... or in Ouagadougou, then subscription cards are sold. The buyer calls a number in Paris, the company then connects via the Internet to its foreign branch, and there you have an international call that actually only costs two local calls. It works... but not always very well. When the Internet pipes are clogged, the conversation can be choppy, or punctuated by long silences. Nevertheless, the offer is already listed in the catalog of all companies offering CTI (computer-telephony integration). The telephone operators who have a good reputation are turning up their noses while admitting that they are working hard on the issue. Indeed, if such conversations were carried out over high-performance networks instead of the ordinary Internet, the technique could gradually replace calls over the traditional switched network. Big savings in perspective for the operators... and therefore, in the long term, for the subscribers. VOICE INTERFACES The telephone should not be the only device to lend you an attentive ear. In 2001, as in the Kubrick film, your computer will be able to talk to you, listen to you, and even, to a certain extent, understand you. A pioneer in voice recognition, IBM has been successfully marketing various software programs for dictation aloud for several months, including Via Voice. For all professions where very similar texts must be written all day long (doctors' prescriptions, legal proceedings, etc.), the microphone has shown that it can replace the keyboard... when connected to a powerful computer, equipped with an advanced spell checker, and after a few adjustments to identify the voice of a specific person. Now part of computer habits, voice recognition is undoubtedly destined to become increasingly important. As a sign of the times, Intel has emphasized the special skills in this area of its future Pentium III; and Microsoft recently invested in a Belgian company specializing in the field. Some people are dreaming of introducing voice recognition into the most diverse devices, such as kitchen appliances, which are supposedly difficult to handle with wet hands. In the meantime, we can already note the existence of a few mobile phones (notably from Matra, Philips and Pioneer) capable of calling any of your friends as soon as they hear you say the right name. From there to predicting the total disappearance of keyboards, buttons and handles, there is a step. The killjoys will point out that for several years now, it has been possible to control a Macintosh by voice... without the technology ever having proven its real usefulness. No matter, a computer equipped with a listening ear will undoubtedly be easier to sell to the many people who are permanently allergic to keyboards. REMODELED COMPUTERS What arguments will the computer sellers of the year 2001 be able to invoke to convince the last holdouts? Well, this time, they will finally be able to find something better than the litany of "pluses": faster (over 500 MHz), more powerful (especially with the introduction of DVD-ROM instead of CD-ROM), with more memory (over 64 MB)... All this will be true, of course, but above all, the transition to the third millennium will be accompanied by some changes in the architecture of the machines themselves. Microsoft also announced, when Windows 98 was released, that this version of its operating system would be the last to concern itself with the architecture of PCs as it had been developed in the 80s. In other words, the word "compatible", which had done so much for the construction of the Microsoft empire, will disappear at least for a while from sales pitches, and with it some vestiges of a glorious but bygone past. We are thus witnessing the end of ISA connection slots, in which electronic cards (modem, graphics accelerator, etc.) were plugged for a long time; this should be done relatively painlessly, this ISA connector having been completely supplanted by PCI slots, better adapted to the requirements of Plug Play. The evolution of the connections, at the back of the machine, will have more serious consequences. The serial and parallel ports, to which modems, mice and printers were connected for years, will disappear in favor of USB and IEEE 1394 connectors (also called Firewire or I-Link). The first allows the "hot" connection, without restarting the machine, of the most diverse peripherals; the second allows speeds of 50 MB/s and more, particularly adapted to digital video. As for the laptop of the year 2000, it will be flatter (between 2.5 and 3 cm), lighter (barely more than a kilo), and above all will no longer need to be wired: its infrared or radio interface will ensure the necessary communications with peripherals, in particular mobile phones. GIFTED PROCESSORS At the very heart of new computers, it is not essential to claim to revolutionize everything. Thus, the successor to the Pentium II, first announced under the code name Katmai, will simply be called... Pentium III. It should appear during the first half of this year, and reach a frequency of 500 MHz. Intel of course plans to install the newcomer in the most powerful desktop machines, while the low-end will have to make do with a modest Celeron processor... at 366 MHz, all the same. As for workstations and servers, Intel has a specialized processor for them, the Pentium III Xeon, also clocked at 500 MHz. Routine, really. In accordance with the principle laid down in the mid-1960s by Gordon Moore, one of Intel's founders, the power of microprocessors doubles roughly every eighteen months... at Intel at least. Because rivals are having a hard time keeping up. The stock market recently caused AMD's share price to fall by 19% in a single session, when the latter's lackluster results were announced. The foundry, which had so brilliantly entered the entry-level segment in 1997 and 1998, is no longer able to meet demand, and must cede part of this ground to Intel's Celeron. This is because processor production lines are becoming more and more expensive, as silicon etching becomes finer. By the year 2000, we will go below the 0.2 micron mark, and Intel plans to reach 0.13 microns in 2002. Finer engraving means chips that can be forced to a higher rate without them heating up to the point of melting. But the computer industry is approaching the unsurpassable minimums: the wavelength of X-rays, the width of molecules. To go even further, it will be necessary to change materials (IBM, in particular, is working to replace the aluminum in electrical circuits with copper, which is more conductive), perhaps to develop new technologies, and in any case to invest in ever more miniaturized equipment... and more expensive. With the disappearance of other players in the sector, competition on the processor market is therefore living its last years. FREEDOM SOFTWARE Fortunately, there are still a few free-snipers who are still resisting the invasion of standardized computing. These disappointed people with the expensive progress are tired of paying high prices for updates and computers that are ever more power-hungry, so as not to be left out of progress. The computer industry in general and Microsoft in particular have made many enemies by forcing the purchase of heavy, complex and expensive software to customers who only wanted to meet basic needs at the best price. On discussion groups, the grumbling of those left behind by computer progress has always been accompanied by the exchange of a thousand and one recipes that allow them to avoid unnecessary expenses. But when these rebels are also programmers, it goes much further: they write themselves, sometimes together, the software they lack, and distribute it for free, accompanied by their listings. Any programmer can thus improve the code they use, then publish in turn the improvements they have made. This is the guiding principle of the FSF (FreeSoftwareFoundation), founded in the 80s. A few months ago, Netscape created a surprise by joining this initiative, and made public the source code of its navigation software, Communicator. Long of an anecdotal importance, free software is starting to seriously interest the industry, especially since it has a reliable and powerful operating system to defend its colors: the astonishing Linux, a clone of Unix for traditional PCs, created over the months by a group of computer geniuses, including the charismatic leader of the project, the Finn Linus Torvalds. Almost all specialists affirm that Linux is at least as reliable as Windows NT... but in addition, this poor man's Unix is completely free, while Microsoft's product costs several hundred dollars per equipped workstation. Still very rustic and difficult to use, Linux will probably not be the one to beat Windows. On the other hand, it is very possible that it will carve out solid positions in sectors where reliability and power are more important than ease of use: banks, proprietary networks, major scientific or industrial development projects. Several companies are therefore seeking to make their mark on this sector. This is particularly the case for Intel, which has taken a stake in Red Hat, publisher of the most widespread version of Linux. OMNIPRESENT ADVERTISING The Internet community is increasingly the object of interested goodwill, independently of the new activities and commercial exchanges that it generates. This is because it represents a prime target for advertising, which is more present on the Net every day. In France alone, revenues from Internet advertising have increased by 127% in one year, according to a study carried out by the Internet Advertising Bureau with Price Waterhouse Coopers. This represents a total of more than 37.5 million francs. Main form of display of advertising on the Internet: banners that decorate the web pages, followed by sponsorship which is starting to develop. Moreover, advertising adapts to all new media. It now appears in the form of posters in free software or "freeware", and even under the mouse pointer, which takes the appearance of the advertiser's logo. ONLINE JOBS The Internet is also a vector of job creation. The Markess International firm estimates that 250 small businesses have been created in France around Internet technologies, employing 12,000 people in total for a turnover of 8 to 10 billion francs. And then, the global network is increasingly asserting itself as a gigantic database at the service of the job market. Not only because a growing number of recruitment agencies, classified ad offers and temporary employment agencies offer their services on the web. But also because it is becoming one of the preferred search tools for companies looking for employees. This is confirmed by a recent study by Atelier, the Paribas technology monitoring center. According to its results, the global network is shaking up the recruitment market, particularly in the United States, where online recruitment is experiencing exponential growth: in 1997, 37% of companies hired on the Internet; 96% will do so in 2001. A trend that benefits job seekers more than traditional intermediaries... who are forced to adapt. INTERNET REDESIGNED The downside of its success is that the Internet is invaded by amateur Internet users and advertising is slowing down, becoming clogged and saturated. The scientific and academic community, which was so relaxed on the network of networks before the Web arrived, is tired of riding bumper to bumper on the so-called information highways. She is calling for a network that is a hundred times faster and more secure, and that would be reserved for her. The name of this dream: Internet 2, quite simply. Vice President Al Gore hastened to make it an electoral theme, and affirms his desire to build in the United States "the most advanced research and education network in the world", with a great deal of fiber optics. A very fine electoral promise: at the desired rate of 100 Mbps, the equivalent of more than 10,000 paperback books could be exchanged every second from one end of the United States to the other! Enough to allow the permanent updating of the most gigantic databases, full-screen video, the distribution of fractal calculations between researchers' machines... But it is not just an electoral promise. Technical tests have already begun at a university in Illinois, under the patronage of the computer industry, led by IBM and Cisco. And more than 130 American universities have already joined the project. Resolutely elitist, Internet 2 should not be linked to the Internet of Mr. Everyman (contrary to the wishes of the NGI project, "Next Generation Internet", which intends to equip the banal Internet with equally ambitious technical possibilities). Academics and scientists would thus get rid of pirates, spies, jokers... and even the business world. Hard to believe in the land of free enterprise. Unless it is a question of stimulating by emulation a huge private investment in similar techniques, this time intended for the general public.

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Bernard Lang, research director at Inria (National Institute for Research in Computer Science and Automation) and secretary of Aful (French-speaking Association of Linux and Free Software Users). Jean-Paul Smets, member of Aful and co-author of the forthcoming book: "Free Software, the New Economy", Ed. Edispher. How to get rid of Linux, this free operating system whose reliability overshadows Windows NT? How to get rid of StarOffice, the European office suite that has already won over 30% of the German market? In short, how to get rid of these volunteers who create free software and all these European SMEs with innovative and inexpensive products, which are beating the software giants? First method: prevent software from communicating with each other by adopting, as Microsoft envisages in its internal "Halloween" report, secret, complex, changing communication standards and, above all, non-compliant with international standards. But in Europe, it is not forbidden to decompile software, that is to say, to dissect it to discover how it communicates. Second method: buy a competitor as soon as it gains momentum. This is how Golive, the German publisher of one of the best website creation software, was bought in early January by the American Adobe, for lack of a potential buyer in Europe. But, in the case of free software like Linux, what can be bought since the code written by hundreds of programmers belongs in practice to everyone? Third method: use patents. In the United States, the approach has proven its effectiveness for more than ten years. By protecting the use of thousands of innocuous techniques with patents such as the cursor that flashes on a screen, the recycle bin that deletes files (to name only examples visible to the user), the major publishers are equipping themselves with a veritable anti-competitive arsenal. Because it is almost inevitable for a programmer to unknowingly use one of the fifty thousand software patents filed each year in the United States and Japan. A small company is easily destabilized by the cost of defending a patent or an infringement attack, even if unjustified. In this game, innovative software SMEs and authors of free software are the big losers. Even big companies, like Adobe, creator of Acrobat and Photoshop, oppose this system which diverts resources lost for innovation into legal actions (1). Europe is still protected by a 1991 directive, prohibiting patents on software. But the current disparity between the American and European protection systems is, as the American company Oracle itself, opposed to patents (1), fears, to the advantage of Europe. For the American ogres, it is therefore necessary to convince the civil servants of the European Union to adopt patents on software. This is exactly what was proposed in 1998 in a green paper entitled Promoting innovation through patents (2). Is this an opportunity for Europe? Will software patents have a positive impact on innovation? Do they justify the risk of seeing free software and many European software creators disappear, and with them the beginnings of renewed competition in this industry? As a general rule, in the case of an open market, patents serve to stimulate innovation, by economically justifying research investments. Formalized by the English in 1623 in the Statute of Monopolies, patents grant the inventor a twenty-year monopoly on an invention on condition that he agrees to publish it. Previously, to protect themselves, many inventors kept secret inventions that disappeared from the heritage of humanity. But what is true in a perfect market is not true in the software market dominated by a few economic giants. From promoting innovation, the patent becomes an "economic weapon" (3) in the hands of cohorts of lawyers serving large publishers in search of skills and technologies to acquire at a discount. The patent is now only used to exploit, absorb or eliminate troublesome competitors without protecting the smaller ones, often more innovative. In addition, the practices of the American and Japanese patent offices, which accept indiscriminately considerable quantities of deposits on trivial inventions in the field of software, stifle the mechanisms that were the historical foundation of the patent. The near impossibility of determining in this mass whether a new patent is original or risks being attacked devalues real inventions and makes the financing of their industrialization more random. Conversely, we note that the software industry initially developed vigorously without any patents, including in the United States. Even without patents in Europe, the existence of software patents in the United States nevertheless remains a formidable weapon to prevent the myriads of small European software companies and authors of free software from exporting their products to the United States. Therefore, while rejecting the principle of software patents, it is appropriate to set up a European fund of software patents filed in the United States and Japan, used exclusively to defend the interests of European producers. This would also be a way to demonstrate the absurdity of the software protection system and to negotiate with our partners an evolution of global intellectual property law more in line with the European ideals of free trade, healthy competition and consumer protection against abuse of dominant positions.

## ###ARTICLE\_START### ID:657

Dear Bill, allow me, at the beginning of this new year, to express to you all my wishes for happiness and health. As for prosperity, we'll come back to that, I have no worries on that subject. You will admit that the year 1998 was for you, as for this dear Elizabeth, an annus horribilis. However, God knows that it had started like a lion for you. Windows 95 and Windows NT were establishing themselves as the planetary operating systems. Your browser, Microsoft Explorer, was gaining in popularity and efficiency against Netscape. Your Office suite had pushed into a corner the competing products of Corel and Lotus, in short, your bank account was doing well and the shareholders of Microsoft were happy. What happened for 1998, which promised to be prosperous in all respects, to end in a small crisis? Even before you were subjected to the wrath of Janet Reno, that passionaria of American Justice, we could sense that something was different this year. While you were traveling in Europe to meet all these heads of state, you were the target of a pie thrower. Poor you, here you are, reduced to the same level as Pierre Bourque and the ineffable William "Bill" Johnson. Note that you could have laughed a little to make this image of coldness that you carry around with you on your international travels fade away. But anyway, it's not up to me to tell you that, your public relations people are better placed to do it. Speaking of Janet Reno, what a pain in the ass! You'll admit it. No way to do business in peace, here she is interfering in yours. However, if you'll allow me, my dear Bill, I would like to give you some advice. First: don't talk about innovation all the time. With all due respect, you are a very skilled copycat, someone who steals other people's technologies and improves them. And who especially knows how to sell them very well. So please, leave the word innovation aside, I consider it an insult in front of MacOS, Linux, Oracle, Dbase and Word Perfect, and instead play the improvement card. In this game, my dear Bill, you beat the Japanese hands down. Second: during your testimonies, do not play the ignorance and memory lapse card. You know, Bill, your employees as well as your PR buddies never stop praising your thinking capacity, your bandwidth, your constant control over all aspects of your company. And now, suddenly, you want us to believe in your memory lapses? Your little forgetfulness? Bill, Bill, Bill, come on, make an effort. Change your strategy. I don't know, do something dramatic, like, invoke the Fifth Amendment. I've always loved this line in American crime movies: "I'll take the fifth!" Third: excellent decision to pass the torch to Steve Ballmer. Who wouldn't want to have the good-natured Steve Ballmer as a buddy? Having met him once, Steve is really the "let's talk business and then have a beer and tell each other stories about guys" type. And, on the marketing side, Steve is one of those who created Microsoft. Come on, my dear Bill, give him all the rope he needs. And enjoy your billions a little. I don't know, take a trip. Or maybe, start cooking. Call me and I'll be happy to give you my recipe for Auvergne-style pork mignonettes. A pure delight with a little Cahors. Fourth: you have a serious problem with Internet Explorer as well as Windows. By giving Explorer away for free, and thus attacking Netscape, you have aroused the anger of a few of your little buddies in the Senate. And then there's your Windows 98. Can I seriously ask if any of your programmers are asleep at the wheel? Windows 95 was already buggy, and you're adding insult to injury by giving us another buggy operating system. Damn Bill, let's not kid ourselves, your 98 version is nothing more or less than Windows 95 version 1.2. And finally, let's talk about Windows 2000, formerly known as Windows NT 5.0. While you were supposed to release Windows 2000 at the end of this year, here, once again, is the deadline being pushed back to an unknown date. And the very influential Gartner group declaring in one of its letters to the "Fortune 1000" not to touch Windows 2000 until at least the year 2001. And Linux eating away at your favorite battlefield, the Internet. Once again, my dear Bill, poor you. Hey, I have an idea for you. And I'll give it to you "for free". Do you want to have the world market stamped Microsoft? Play the card of free and available source code (OpenSource). Play the same card as Linux. Take advantage of this fabulous pool of programmers and beta testers that is the Internet to place the source code of Windows 95, CE and NT 4.0 on the network of networks. You will see, in a short time, many bugs will be fixed by them, many improvements will see the light of day. And, for sure, you will shift the focus of the specialized press from Linux to Windows. Okay, you will probably touch a little less royalties than in the past, but I am sure that many people would be very interested in buying a Microsoft "distribution" more than any other. And what a low blow for this dear Janet. No more hassles with Justice. Your public image would rise in the polls and, above all, put an end to this "Anything but Microsoft" attitude that we are starting to feel everywhere. Imagine, Windows everywhere, as you have always dreamed. You do what I tell you, my dear Bill, and I predict a Nobel Prize for you. My dear Bill, once again, I wish you, and all the readers, a beautiful and pleasant year. And if you still need my advice, do not hesitate to write to me. You know, even if I sometimes rub your ears, I like you... dumais@Mlink.NET

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A hungover guru looks like everyone else: he's wrinkled. This Sunday afternoon, a painful awakening for Richard Stallman, father of "free software", adored by millions of computer scientists around the world and one of Bill Gates' worst enemies. Barefoot on the carpet, the American fiddles with his long brown hair and pulls a crumpled tea bag out of his pocket: "I wasn't sure if you had any." The Parisian night has been long, from bar to bar, following an attractive young woman flanked by a male of unclear status, boyfriend or not, he doesn't really know, he explains in slurred French. Since 1984, Richard Stallman has been trying to impose his vision of free, cooperative computing, accessible to all, which simply refuses companies copyright on their software. According to him, the programs themselves should be "the collective property of humanity", and companies should be content with the role of distributor, service provider and technical assistance. A concept totally opposed to that of big companies like Microsoft, jealous of their manufacturing secrets. The result is there: according to the American research firm IDC (International Data Corporation), the market share of the "free" Linux operating system in companies has increased from 6.8% to 17.2% in a single year. When he is not in front of his keyboard, in Boston, at the FreeSoftwareFoundation, which he created in October 1985, Stallman travels the planet playing the prophet. Jealous of his missionary aura, he is almost irritated by the growing celebrity of Linus Torvalds, the young Finnish computer scientist who is the author of an essential component of Linux, which Stallman calls by its exact name, GNU-Linux (1). "Without the FreeSoftwareFoundation, Linux would not have existed," he says, sulking. To attract attention to himself, the imposing bearded man does not hesitate to ham it up. During a conference at the University of Saint-Denis organized by April (2), Association for the Promotion and Research in Free Software, in front of an audience of students and fans, he did not hesitate to bless computers, disguised as a saint with, as a halo, the platter of a hard disk. Interview. What is the advantage of free software? It is summed up in a motto: "Liberty, equality, fraternity". The freedom to use the software as you wish. The freedom to make changes to the program if it does not correspond to your needs, to make copies for friends and to release an improved version with other functions as a contribution to society as a whole and for the advancement of human knowledge. Then, fraternity, because free software is the fruit of cooperative work. Finally, equality, because everyone has the same tool, without financial barriers and without an elite with more powerful tools than others. Is all this not possible with traditional software on the market, and first and foremost Microsoft's Windows operating system? No, because it is forbidden because of copyright, or impossible because the "sources" of the software are not public. That is why I invented copyleft, or "author's left", which clearly states that you can copy, modify and even distribute free software, but on condition that you give the same rights to those who use this program. How many people work on the GNU project? Nobody knows. There are no lists, and the work is decentralized, partly thanks to the flexibility of the Internet. Each component of the project has its lead developer, who is responsible but who can recruit many other people to help him. When we arrive, we are several hundred people, I think. A figure to which are added the thousands of programmers in the world who are constantly improving the software produced by the foundation. The boss of Microsoft France recently said that free software was a tool for computer scientists, not for the general public... Free software should not be only for computer scientists. It must be usable by everyone. That is why we are working today on a graphical interface that is as powerful as possible. Everything that can be easily done with windows and icons on a PC with Windows or on Macintosh, we must be able to do with GNU-Linux. In fact, we are adding other functions to GNU-Linux, which is the basic software: a browser for the Internet, a word processor and various tools... A bit like Microsoft, which integrates its browser for the Internet, Explorer, into Windows. Which is what the American justice system is accusing it of... It is ridiculous! On this point, I agree with Microsoft: I don't believe that the operating system has narrow, predefined boundaries. There are many other things that Microsoft has done that may be illegal, but it is normal to integrate other functions into the operating system, including Internet Explorer. Microsoft's problem is not a monopoly, it is that Windows is not free. And that users find themselves prisoners of the company. Is free software a threat to Bill Gates? I do not wish to harm Microsoft in particular. But I want to eliminate or change the entire software industry. If Microsoft can adapt to free software, it is welcome. I am not the enemy of any company, I am just the enemy of what Microsoft and many others are doing at the moment. I want to find the original spirit of scientific cooperation. I read that American soldiers who landed on an island in the Pacific Ocean during World War II found a building with a note: "To the American soldiers. This building is a marine biology lab. We have put all our samples and reports in order so that American scientists can continue our work." Today, we live in a state of civil war. It's sad. (1) GNU is an untranslatable jargon acronym that literally means: "GNU is not Unix"; Unix being an operating system that Stallman modeled after when he started his project, called "GNU." And Linux comes from Linus Torvalds' first name. (2) www.april.org

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From a distance, it looks like a scam: developers working for free; companies lurking around them. Some see this as a denial of the copyright that these participants in a collective work could claim. In fact, the developers do not give up their copyright. Free software does not belong to the public domain, but remains the property of its creators. The latter grant everyone the right to use their work, on the condition that any improvement is made public. In other words, that the manufacturing secrets circulate freely. Conversely, commercial software requires the payment of a royalty for any distributed copy. As for the manufacturing secrets, they are well kept by the publisher. A publisher of proprietary software (Microsoft for example) is comparable to a great fashion designer who would keep the pattern of his clothes to himself. In the free software model, the pattern circulates freely on the Internet: each little hand can make modifications and benefit from those made by his cronies. Volunteers but also employees. In the IT world, who are the little hands? What are their motivations? First, there are completely disinterested and volunteer designers. They take their free time to contribute to the building. Their primary motivation is personal satisfaction and, when they are at the origin of a breakthrough, glory, recognition from their peers. The most talented are spotted by companies that open their doors to them. Some companies, to make themselves known, ask their employees to contribute to free software. Other computer scientists, finally, train themselves this way: "Developing free software is the best way to learn the job of developer", they explain at Netscape. But developers are not all passionate volunteers. Many of them work for user companies. These, in fact, have every interest in paying some of their employees to contribute to the improvement of these products. This is how Jean-Paul Smets, a consultant specializing in the field, explains how free software constitutes a solid alternative economic model (1). Rather than buying commercial software, a company may have a financial interest in opting for free software, he explains. "Let's imagine that a site host has a problem with Apache (free software that manages more than half of the world's web servers, editor's note). He will pay a developer to correct the problem. And, depending on the software license, he will pay this correction into the common pot." Conversely, the user of commercial software is dependent on the publisher. He cannot make modifications himself. If the software contains bugs, he must wait for an "update" from the publisher. If he wants an improvement, he must hope that it is in the next version. Free software users improve the operation of the product or adapt it to their needs. And what they do for themselves benefits others. "The burden of development is shifting, a little less on software publishers, a little more on users." Companies are therefore stakeholders in this model: those that contribute to their development, those also that offer distributions in the form of CD-Roms. Like Netscape with the next version of Communicator, these companies are likely to add adaptations of their own and to offer additional services (installation, maintenance, etc.). Four main distributors share the Linux market: the best known are Red Hat (in which, on September 29, Netscape and Intel took a minority stake), Caldera, Suse and Debian. Marxists and liberals. Oddly enough, this model appeals to both liberals and Marxist economists. For the former, it strengthens individual initiative and stimulates competition. It demonstrates, for example, that a group of Internet users is able to confront Microsoft, making antitrust regulations unnecessary. On the contrary, for Olivier Blondeau, a leader of Espace Marx (2), free software "constitutes one of the vectors of destabilization of the rules and values of capitalism" and perhaps contains "the beginnings of an unprecedented project of social transformation". Far from "the relationships based on predatory competition", the community of producers is "mobilized, not by criteria of financial profitability perceived as parasitic, but by the search for a better match between needs and the product, that is to say by quality and social efficiency" (3). (1) www.smets.com/it/tco/libre/index.html (2) Association de réflexion marxiste www.internatif.org/EspMarx/ (3)www.liberation.com/multi/actu/ semaine981116/art981116b. html

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Netscape is gradually separating itself from the team that had made its reputation: the same one that designed its navigation programs. "The idea, in the long term, is that, in the company, no one will work on Communicator anymore," explains Tristan Nitot, marketing manager at Netscape Europe. Not that the publisher has decided to abandon this product. But, after having been paid, then free, Communicator joins the family of free software, whose manufacturing secrets are freely shared between independent developers. And whose breakthrough is starting to worry the publishers of "proprietary" software. For the most part, Netscape entrusts the development of its browser to computer scientists outside the company. The former members of the team "are intended to hand over," explains Tristan Nitot. This is how the company will try, in 1999, to compete with Microsoft. "When faced with a competitor whose behavior is uneconomic, we change the rules of the game," Tristan Nitot explains. "By continuing with the standard model, we cannot compete. Where we put 100 programmers, Microsoft will put 1,000. Fighting 1 against 10, there comes a time when it becomes tiresome." This summer, the number of users of Internet Explorer (Microsoft's browser) had exceeded that of Netscape loyalists, according to the research institute IDC. By adopting the free software model, Netscape hopes to restore its market share by offering a more efficient product. The objective: to impose its brand, attract Internet users and advertisers to its Netcenter portal site and sell its server software. On December 7, the company presented Gecko, the first creation of Mozilla, the organization created to coordinate the efforts of external developers. Gecko is the "engine", the central element, of Communicator 5, the future version of the navigation software. "The product has been completely rewritten," Tristan Nitot explains. "We're wiping the slate clean of the successive layers of previous versions." Expected for the second quarter of 1999, Communica-tor 5 will be "a compact and fast product," Nitot assures. Its developers "don't have a manager behind them. They take the time to write beautiful code." The model, in any case, is successful for Linux, the software created in 1991 by the Finn Linus Torvalds, then a computer science student. This year, the number of versions installed on corporate servers has more than tripled compared to 1997, according to an international study by IDC. "And we're not even taking into account downloads and copies, which are impossible to evaluate," explains IDC analyst Dan Kusnetzky. The real number of versions installed could be up to six times higher." The market share of this operating system increased from 6.8% to 17.2% in 1998, while that of Windows NT, Microsoft's software, stagnated at 36%. It was impossible to interrupt Kusnetzky as he listed the reasons for such success: Linux's reliability, its speed, its cost. Another advantage: "Linux gives a second life to computers that are too old to run Windows NT efficiently," the analyst explains. Added to this is the development of an anti-Microsoft sentiment among IT managers ("anything but Microsoft"). But, above all, Linux can be freely modified and adapted to the needs of users. In 1998, Microsoft saw two of its main competitors take up the cause of this alternative model: IBM, for its part, allied itself with the developers of Apache, another free software, which equips more than half of web servers. The threat is taken very seriously. In an internal memo this summer, an engineer concluded that free software was often of better quality than Microsoft's products and represented a direct threat to its revenues.

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Free software: software whose manufacturing secrets (called "source codes") are shared and freely distributed. Any volunteer can participate in the development of the product, by proposing their own improvements. The best-known free software are Linux, FreeBSD (operating systems), GIMP (image editing), Apache (Web server), Sendmail (email transmission)... Operating system: this is the software that makes all the others work. Comparable to an orchestra conductor. Linux: like Windows, Linux is an operating system for personal computers (PCs). Linux is an adaptation for the PC of the Unix operating system. Until recently, Linux was mainly used by software developers, universities and Internet access providers. It is gaining ground in large companies, which use it mainly for their internal networks and websites. Graphical interface: windows and drop-down menus that can be manipulated with a mouse Download: copying software onto your computer, from a remote server

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The definition of Linux varies depending on whether you are a Microsoft supporter or opponent. If you love Microsoft products, Linux is an operating system (software that runs other programs) for "nerds" (computer tinkerers) that will never reach the hard drives of the general public. If you hate Windows (or Microsoft, or Bill Gates), you will see in Linux the probable successor to the operating system that equips more than nine out of ten PCs: faster, more powerful, more stable. Developed by a passionate community of volunteer programmers, at the initiative of a young Finnish computer scientist, Linus Torvalds, Linux is what is called "free software": its manufacturing secrets are freely shared. Everyone, thanks to the Internet, can contribute their stone to the building, hence frequent and rapid improvements. The software is free. In 1998, it spread to large American companies, which use it mainly for their internal networks and their websites. Linux was used to create the special effects for the film Titanic. Linux has begun to affect French companies: France Télécom, for example, uses it for its Voila portal site. This year, Microsoft has begun to get seriously worried: internal memos have been circulating, admitting that the quality of free software like Linux can surpass that of Microsoft products. Another alarming observation for Bill Gates' group: the diffusion of free software on the Internet is more effective than that obtained by Microsoft's marketing.

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The Internet could turn against human rights if policies are not put in place to promote the diversity of information on the networks, to prevent the information society from becoming a "surveillance society" (see opposite) or to democratize access to the Internet. Among the suggestions presented yesterday to the governments present at UNESCO: review the role of the teacher who "will no longer be the sole holder of knowledge, but (...) the one who directs, who guides, who enlightens", develop the use of free software in schools (developed by networks of volunteer computer scientists and capable of operating with used computers) and extend the universal telecommunications service to the network. The proposals took up the conclusions of a conference organized in Toulouse on October 9 and 10.

## ###ARTICLE\_START### ID:665

Imagine a world where the notion of copyright no longer exists. Imagine a world where it would be possible to reproduce at will a text published on another site. Utopia? No, thanks to the OpenContent project of David Wiley, a doctoral student at Brigham Young University in the United States, this is now possible. The idea of publishing content with a "free content" license came to him when he wanted to publish educational material that he had designed, while allowing its free reproduction. Wiley wanted, despite everything, that the said content not be irresponsibly modified and that he be credited as the original author of the text. Being a "fan" of the Linux operating system and the open-source software movement, Wiley took as a model the GPL (GNU General Public License) license that was developed to accompany free software. The name of his license: OPL or OpenContent License. Very simply, when you want to reproduce content under the OPL license, it stipulates that you can use the material for free, that any changes made to the text must be clearly indicated, as well as the author of the modifications, and finally, that the modified text must be published under the OPL license. The date of the modifications to the original text must also be indicated in the modified document. But be careful, if the textual content is published under the OPL license, the same is not true for images, sounds or videos, which are covered by other types of license. According to Robert Cassius de Linval, a lawyer specializing in new technologies, "the Copyright Act allows copyright owners to grant licenses governing the use and exploitation of their works. The creators of the OpenContent initiative have simply taken advantage of the prerogatives given to them by the law." Also, we should not talk about content that is in the public domain, since the use of content, even if it is said to be free, is subject to the acceptance of the terms of the license by the user; therefore, OpenContent is not so in the proper sense of the term. It is rather royalty-free content, but not free in all. "That said, according to Cassius de Linval, the initiative is interesting in that it allows free creation from so-called OpenContent content. But, the license does not allow the exploitation of hybrid content - resulting from an amalgam of OC and original work by a third party - for money." Therefore, OC authors who seek to propagate their philosophy and the conditions of use of the works that they make available to Internet users should be able to take steps in this direction. Although very recent, this initiative seems to attract for the moment mainly authors of personal pages. Note however that the highly respected cybermagazine MacOSrumors is now published under the OPL license. Finding this initiative very interesting, I decided to play the game. As you probably know, I publish on the cyber daily Multimédium a nearly daily column on life in Linux. Starting tomorrow, all the texts published by your very humble servant on Multimédium will now be accompanied by an OPL license. Guess who just called? Who doesn't know ICQ, this instant messaging software, allowing you to communicate in real time, exchange files or "chat", and which is used by more than 20 million people? A success story worthy of the Internet that America Online could not resist, this company having acquired in June 1998 all the assets of the parent company, Mirabillis, for nearly $300 million. Very easy to use, during the initial installation, the ICQ server assigns you a unique identification number. For example, the ICQ number to communicate with me is 18 584 655. Like many people, you imagine that this is a secure technology. However, no one should rely on it to exchange confidential information, because with the help of certain software available on "hacking" sites, it is now possible to obtain your password, to know who you are communicating with and the nature of your exchanges, etc. Very recently, following my conversion to Linux, I started looking for solutions that would allow me to use ICQ under this operating system because, despite everything, this small application is very useful for exchanging trivial comments with a person. Since the JAVA version of ICQ was strongly advised against, I started trying ICQ clones (they exist). And what a surprise it was when I installed a version, called Licq, developed by a person from the University of Waterloo. A small option allows, when sending a message, to practice "spoofing", that is to say to make a person believe that I am someone else. In practice, when sending a message in Licq, it is possible for me, by checking a small box identified "spoofing", to enter an identification number other than mine. The person who receives the message therefore thinks that it is a completely different person. Imagine the potential misunderstandings, or worse, the possibilities of giving confidential information to a third party by pretending to be someone else. In short, it must be repeated, be careful, do not trust ICQ to exchange sensitive or confidential data. Electronic mail with an encryption mechanism such as PGP (Pretty Good Privacy) is still the best solution. Comments? Suggestions? Questions? You can contact Michel Dumais by e-mail at the following address: dumais@Mlink.NET.

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Very simply, when you want to reproduce content under the OPL license, it stipulates that you can use the material for free, that any changes made to the text must be clearly indicated, as well as the author of the modifications, and finally, that the modified text must be published under the OPL license. The date of the modifications to the original text must also be indicated in the modified document. But be careful, if the textual content is published under the OPL license, the same is not true for images, sounds or videos, which are covered by other types of license. According to Robert Cassius de Linval, a lawyer specializing in new technologies, "The Copyright Act allows copyright owners to grant licenses governing the use and exploitation of their works. The creators of the OpenContent initiative have simply taken advantage of the prerogatives given to them by the law." 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Note however that the highly respected cybermagazine MacOSrumors is now published under the OPL license. Finding this initiative very interesting, I decided to play the game. As you probably know, I publish on the cyber daily Multimédium a nearly daily column on life in Linux. Starting tomorrow, all the texts published by your very humble servant on Multimédium will now be accompanied by an OPL license. Guess who just called? Who doesn't know ICQ, this instant messaging software, allowing you to communicate in real time, exchange files or "chat", and which is used by more than 20 million people? A success story worthy of the Internet that America Online could not resist, this company having acquired in June 1998 all the assets of the parent company, Mirabillis, for nearly $300 million. Very easy to use, during the initial installation, the ICQ server assigns you a unique identification number. For example, the ICQ number to communicate with me is 18 584 655. 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Practically, when sending a message in Licq, it is possible for me, by checking a small box identified "spoofing", to enter an identification number other than mine. The person who receives the message therefore thinks that it is a completely different person. Imagine the potential misunderstandings, or worse, the possibilities of giving confidential information to a third party by pretending to be someone else. In short, it must be repeated, be careful, do not trust ICQ to exchange sensitive or confidential data. Electronic mail with an encryption mechanism such as PGP (Pretty Good Privacy) is still the best solution. dumais@Mlink.NET

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Phew... It took three days, two sleepless nights and nearly a hundred emails, but Jacques Dupont, Philip Gwyn and I got it done. Since last Tuesday, Internet users wishing to help the victims of Hurricane Mitch, which ravaged Central America, have been able to send their donations online to Development and Peace, via a secure transactional website. This volunteer initiative has a very pragmatic goal: to relieve telephone congestion and give the organization's dozens of volunteers a little respite. Three days It's not much when it comes to bringing an organization that still reduces the Internet to a single tool, email, into the 21st century. It's not much, but it's enough and - oh my! - very convincing. In fact, it was my first foray into the mysteries of secure transactional sites, which are the foundations of online commerce. I learned that, paradoxically, doing business online doesn't cost much. The system in question, says programmer Philip Gwyn, runs exclusively on free software, such as the Apache server, the Perl language and the SSL security protocol. It is the latter that automatically encrypts the "sensitive" information that you transmit to a merchant, thus preventing crooks from intercepting this information. Obviously, it takes a few dozen hours of programming to make everything run smoothly, but the cost remains marginal. However, all these precautions are worthless without the centerpiece of an online transactional system: the authentication certificate. This is an electronic document issued by a recognized organization that certifies that the site sos-mitch.devp.org is not the product of the imagination of an idiot. Enter the "Cash donation" area of the site and you will see the little padlock located at the bottom of your browser close and appear highlighted. Click on it and ask to see the authentication certificate: it certifies that the website belongs to Development and Peace. In fact, if it took three days to open the site, it's because we had to wait for the certificate. And guess what, that's what cost the most, a whopping $125 US. One question remains: if it's so easy and so economical to sell online, why are Quebec businesses still hesitant to make the leap to the Internet? "The Internet is neither reliable nor secure," respond its detractors. However, Minister of Culture and Communications Louise Beaudoin has demonstrated the opposite by agreeing to make a donation via the Internet. "Remote purchasing is not part of Quebec's culture," maintain others. Sears stores have nevertheless raked in millions of dollars with their catalogue sales service. "You can sell books or records over the Internet, but not pantyhose or children's toys," retort others. Ask my mother, who lived in Abitibi during the 1950s. She found children's clothes in catalogues, of course. If the Internet is only an electronic copy of the paper catalogue of yesteryear, why don't The Bay or Sears stores have an interactive version of their store there? Others are doing very good business there. Via Rail, for example, generated 1% of its sales on the Internet this year, or $2.5 million. All things considered, that's the equivalent of what American Airlines made in 1997 with its Web site. That's without counting the savings made by the company by getting rid of a few telephone operators. Yes, but... say the detractors, the Garneau bookstore has been online since April 8 and the profits are not commensurate. Should we be surprised? Do you know where it is located? In the depths of the InfiniT website, inside a section called "Shops" that groups together four stores. That's not all: the virtual bookseller does not offer any discounts or promotions to Internet users. Give me ONE good reason to take a detour to the InfiniT "Shops" and I'll go there right away. In fact, it's not enough to have the most beautiful online store, you also have to attract customers. And that has nothing to do with technology. It's primarily a question of marketing and advertising. Unfortunately, there are still a few old dinosaurs in these circles (well, well, I've already talked about that...) who will tell you that the Internet is not yet ready, that it is not secure and that it is not yet accepted... Soft trigger... Last week, I mentioned the fact that political parties are slow to take the Internet turn. The communications department of the Parti Québécois brought me back to order by pointing out that I was wrong to put them on the same level as the Liberal Party and the Democratic Alliance. "We would like to inform you that we respond to a significant number of emails on a daily basis, particularly when people who write request information," they wrote to me. Regardless, I decided to do my own checking. At noon last Wednesday, I sent the PQ the following question: "Do you have more details on the Parti Québécois' platform regarding $5 daycare?" And to the other two parties, I asked "what is your political party's position regarding $5 daycare?" A few hours after my deadline (Thursday 10 p.m.), I was still waiting for a single little answer to my question... Bookmarks Corner SOS Hurricane Mitch: sos-mitch.devp.org La Baie: www.hbc.com/bayf/home.asp Eaton www.eatons.com/ InfiniT www.infinit.net Librairie Garneau www.garneau.com Via Rail www.viarail.ca andreb@memento.com

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San Francisco - Intel's strategy is now driven by the transformation that the Internet is forcing on the computer industry, and the American microprocessor giant is affirming its desire to extend its influence on a global scale. "The computer industry is undergoing a transformation and we must adapt to this new environment to take advantage of the opportunity that the growth of the network represents," said Andy Grove, Intel's president, at a press conference in Santa Clara on Thursday. "The Internet is today the number one factor behind the purchase of a computer, and network computing will be the majority of our market in a few years." Founded in 1968, Intel powers 80% of the 100 million personal computers (PCs) sold each year worldwide, according to the analysis firm Dataquest. The Internet is the key driving force that promises to drive the PC market in both mature markets, such as the United States, Europe and Japan, and emerging markets, such as China, India and the major Latin American countries. The microprocessor maker is working to stimulate the movement, based on the adage that "Intel does well when the rest of the industry does well." It is multiplying all-out initiatives aimed at fostering technological innovations in the network in order to boost Internet penetration. In a first phase, Intel provides technological support by contributing to the industry's research and development efforts, with priorities including the development of Internet applications such as 3D technology for e-commerce. Intel relies on 600 engineers spread across different research units and an annual budget of $2.8 billion. The group also provides financial support to companies that develop cutting-edge technologies, as illustrated recently by its investment in RedHat, the main distributor of the Linux operating system. "Linux [free software] is enjoying remarkable success in the Internet service provider server market," said Sean Maloney, Intel's vice president and director of sales and marketing. Shareholder in 200 companies Three years after the launch of this investment program, Intel is a minority shareholder in 200 companies and holds a portfolio worth $1 billion. About $330 million was invested in 1997, a budget that should double in 1998 with 120 transactions already completed, this figure does not take into account large transactions such as the one completed this fall with Micron Electronics. But with fewer than 20 lines of investment made abroad last year, these efforts are now considered insufficient by Intel's executives, who are planning a broad opening on the international scene. "I would like to see half of our investments made next year with foreign companies," declared Mr. Barrett, before emphasizing the need to develop local content on the network and therefore to call on foreign brains locally. The movement was launched with the opening this summer of a major research laboratory in Beijing. But Intel is not all-powerful. And its ambitions promise to come up against the institutional and legal difficulties that are holding back the expansion of the Internet for some time to come. "The costs of accessing the Internet and the telecommunications rates charged in particular in Europe pose real challenges," declared Mr. Barrett. A phenomenon further aggravated in Latin America by the customs barriers that are holding back the penetration of computers on this market.

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The Linux universe is not planned, nothing is organized. Expect the unexpected, think the unthinkable; Linux is already proof that the unrealizable can be realized. You must always believe in the force that drives the authors of free software: the desire, the need even, to develop and evolve the best program there is, for the pleasure of all, without notion of profit. If you have not assimilated these basics, there is no point in going further. Math Welsh and Lar Kaufman, authors of the book Running Linux At a time when Microsoft bashing is even more fashionable than cigar and port evenings, when dear Uncle Bill is getting more and more entangled in his testimony in the trial opposing his company to the United States Department of Justice, while his memory is strangely failing him (there are many things I am prepared to believe about Microsoft, but not a memory lapse from Bill Gates), researchers, thinkers, journalists and gurus of all kinds are desperately looking for the one who could put an end to Microsoft's monopoly. The potential challenger? Linux. But is Linux really the solution or is it only part of the solution? What is Linux? Linux is a free and freely distributable version of the Unix operating system. It was developed in the early 1990s, as a hobby project, by a young Finnish student named Linus Thorvald. It was inspired by Minix, an "academic" and very crude version of Unix. Quickly, through the Internet, programmers from all over the world contributed to exploding Linux and adding many features to it. From a simple project, Linux has today become a serious alternative as an operating system to commercial Unix, Microsoft Windows and MacOS. However, is Linux really a threat that should be taken seriously by the Redmond giant and its very rich boss? Yes, but only in part, because the real fight that is brewing is not really between Linux and Microsoft, as many believe, but rather between the free and open software movement and the commercial and proprietary software industry. The first round of this war will take place on Microsoft's favorite terrain, the Internet. It will pit Linux in one corner against Windows NT, recently renamed Windows 2000, in the other. Let's not kid ourselves, I don't believe Linux is ready to replace Windows 9x and MacOS in our personal computers yet, although I'm willing to test it and play the game. But on the Internet, as an all-purpose server, Linux currently offers everything it takes to beat Microsoft, Apple, and even Sun hands down. Linux is stable, very stable, Internet client-server applications abound for this platform, performance is often equal to, if not superior to, NT, and, what's more, it's free. Microsoft knows this very well. An internal Microsoft memo, called the "Halloween document," has found its way onto the Internet. In it, we learn that the next fight to be fought is against the free and open source software movement. And Linux is in Bill Gates' sights. Many companies have understood this. The Linux-Apache combination (Apache is a web server developed on the same principle as Linux, free and freely distributable) is by far the most popular on the Internet today. Although Windows NT continues to gain market share on the Internet, this is not gained at the expense of Linux, far from it. As for after-sales service, although Linux users do not have technical support telephone lines, they can instead count on an incredible pool of tens of thousands of people who use or develop on Linux every day. To reach them, it is simple: dial INTERNET on your computer keyboard. Through the dozens of newsgroups and hundreds of Web sites devoted to Linux, you will probably quickly find the answer to your problem. The next few years are likely to be fascinating from every point of view. War has been declared. According to Jean-Claude Guédon, professor of comparative literature at the University of Montreal and great apostle of Linux, between the commercial and proprietary software industry and the free and open source software movement, the user will have to choose between "consumption or appropriation of technology." Living with Linux, 24 hours a day As you read above, I do not currently believe that Linux is an alternative to the Windows and MacOS of this world. OK for the Internet, but should I eliminate forever all traces of commercial operating systems on my personal computer? And what about Office, Clarisworks, Photoshop and games of all origins? However, I am ready to give Linux a chance, a real chance. Let's do what almost no technology columnist (except the one from the San Francisco Chronicle) has dared to do: I commit, over the next week, to installing Linux on a brand new machine and making it my main computer for a minimum of two months. Exit Windows, exit MacOS. Texter, spreadsheet, calendar, image editing software, games, everything will have to work under Linux. Obviously, I will regularly report on my adventures with Linux, here, in this weekly column. But Internet users will be able to follow in a much more detailed and frequent way my setbacks and successes with Linux on the site of the electronic daily Multimédium. You will be able to leave your comments and questions on a forum hosted by members of the Linux-Québec organization. So, are there any of you who are ready to accompany me in this somewhat crazy process? If so, do not hesitate to write to me at the following address: dumais@mlink.net. We will surely find a way to help each other, in the purest spirit of the free and open software movement.

## ###ARTICLE\_START### ID:670

The Linux universe is not planned, nothing is organized. Expect the unexpected, think the unthinkable; Linux is already proof that the unrealizable can be realized. You must always believe in the force that drives the authors of free software: the desire, the need even, to develop and evolve the best program there is, for the pleasure of all, without notion of profit. If you have not assimilated these basics, there is no point in going further. The authors of Running Linux At a time when "Microsoft bashing" is even more fashionable than cigar and port evenings, when dear Uncle Bill is getting more and more entangled in his testimony in the trial opposing his company to the United States Department of Justice while his memory is strangely failing him (there are many things I am ready to believe about Microsoft, but not a memory lapse from Bill Gates), researchers, thinkers, journalists and gurus of all kinds are desperately looking for the one who could overcome Microsoft's monopoly. The potential challenger? Linux. But is Linux really the solution or is it only part of the solution? What is Linux? Linux is a free and freely distributable version of the Unix operating system. It was developed in the early 1990s, as a hobby project, by a young Finnish student named Linus Thorvald. It was inspired by Minix, an "academic" and very crude version of Unix. Quickly, through the Internet, programmers from all over the world contributed to exploding Linux and adding many features to it. From a simple project, Linux has today become a serious alternative as an operating system to commercial Unix, Microsoft Windows and MacOS. Yet is Linux really a threat that should be taken seriously by the Redmond giant and its very rich boss? Yes, but only in part, because the real fight that is brewing is not really between Linux and Microsoft as many believe, but rather between the free and open software movement and the commercial and proprietary software industry. The first round of this war will take place on Microsoft's favorite terrain, the Internet. It will pit Linux in one corner against Windows NT, recently renamed Windows 2000, in the other. Let's not kid ourselves, I don't believe Linux is ready to replace Windows 9x and MacOS in our personal computers yet, although I'm willing to test it and play the game. But on the Internet, as an all-purpose server, Linux currently offers everything it takes to beat Microsoft, Apple, and even Sun hands down. Linux is stable, very stable, Internet client-server applications abound for this platform, performance is often equal to, if not better than NT, and, importantly, it's free. Microsoft knows this very well. An internal Microsoft memo, called the "Halloween document," has found its way onto the Internet. In it, we learn that the next fight to be fought is against the free and open source software movement. And Linux is in Bill Gates' sights. Many companies have figured it out. The Linux-Apache combination (Apache is a web server developed on the same principle as Linux, free and freely distributable) is by far the most popular on the Internet today. Although Windows NT continues to gain market share on the Internet, this is not gained at the expense of Linux, far from it. As for after-sales service, although Linux users do not have technical support telephone lines, they can instead count on an incredible pool of tens of thousands of people who use or develop on Linux every day. To reach them, it is simple, dial INTERNET on your computer keyboard. Through the dozens of discussion groups and hundreds of Web sites devoted to Linux, you will probably quickly find the answer to your problem. The next few years are likely to be fascinating from every point of view. War has been declared. According to Jean-Claude Guédon, professor of comparative literature at UdeM and great apostle of Linux, between the commercial and proprietary software industry and the free and open source software movement, the user will have to choose between "consumption or appropriation of technology." Living with Linux, 24 hours a day As you read above, I do not currently believe that Linux can be an alternative to the Windows and MacOS of this world. OK for the Internet, but should we eliminate forever all traces of commercial operating systems on my personal computer? And what about Office, Clarisworks, Photoshop and games of all origins? However, I am ready to give Linux a chance, a real chance. Let's do what almost no technology columnist (except the one from the San Francisco Chronicle) has dared to do: I commit to installing Linux on a brand new machine over the next week, and to making it my main computer for a minimum of two months. Exit Windows, exit MacOS. Texter, spreadsheet, calendar, image editing software, games, everything will have to work under Linux. Obviously, I will regularly report on my adventures with Linux, here, in this weekly column. But Internet users will be able to follow in a much more detailed and frequent way my setbacks and successes with Linux on the site of the electronic daily Multimédium. You will be able to leave your comments and questions on a forum hosted by members of the Linux-Québec organization. So, are there any of you who are ready to accompany me in this somewhat crazy process? If so, do not hesitate to write to me at the following address: dumais@mlink.net. We will surely find a way to help each other, in the purest spirit of the free and open software movement. dumais@Mlink.NET

## ###ARTICLE\_START### ID:671

Confirmation of Microsoft's concern over the rise of Linux free software, an operating system developed voluntarily and distributed free of charge (Libération, November 2): "The ability of free software to pool the collective IQ of thousands of individuals across the Internet is simply fascinating," writes Vinod Valloppillil, a Microsoft engineer, in a widely distributed note within the company, which acknowledged its authenticity on Monday. More importantly, software is spreading on the Internet much faster than our marketing efforts allow us to do." He also acknowledges that the quality of free software can exceed that of Microsoft's products. The document: www.tuxedo.org/~esr/halloween.html

## ###ARTICLE\_START### ID:672

Imagine a free operating system, distributed free of charge on the Internet. An operating system that owes nothing to Microsoft, which is regularly enriched with innovations developed by independent programmers spread across the four corners of the world. A powerful and modern operating system, intended for practically all types of computers... This rare bird exists. It is called Linux: an operating system based on Unix, free, widely distributed and capable of being modified by any programmer. It can be downloaded from dozens of servers or obtained on CD-Roms inserted in magazines or books on the subject. It works in multitasking, with specific memory zones to protect each application, on all PCs, from the 386 to the Pentium, on Macintosh, on Sun, Mips and Alpha stations, and accommodates systems equipped with one or more processors. Originally designed by a Finnish student, Linus Torvalds, who gave it his name, Linux is closely linked to the Internet. It appeared on the network in 1991, and it is on the network that you can find everything related to it: the system itself and its user guide, to download, but also software, advice and all the contacts with the programming community. Like the Internet, Linux imposes a new model of economy, global cooperation and communication. Like the Internet, it improves with the contributions of each and every one. And, like the Internet, it is the object of all the attention of companies. Because Linux appears as a major competitor for the other Unix developed by manufacturers, and in particular Solaris from Sun. But also as a serious replacement solution for Microsoft products, starting with Windows NT. More and more users believe that the equation PC = Windows is perhaps no longer obvious. The CNRS has even forced its suppliers to offer computers without a pre-installed operating system. Which, incidentally, helps to reduce the price of PCs. However, while Linux has many qualities, it also suffers in several areas. Delicate to install, Linux is also difficult to master for those who do not have a good knowledge of computers in general and Unix in particular. In addition, its main weak point is its lack of compatibility with different hardware. For a simple reason: most peripheral manufacturers favor the development of driver software for the most widespread operating systems, starting with those from Microsoft. This does not discourage Linux fans who take the time to write the appropriate utilities themselves. The new version 2.2, which should be released before the end of the year, should resolve some of these problems. Available for computers based on Intel, Motorola 68 000, PowerPC, Sun Sparc 64 and Alpha processors, it will integrate all the improvements developed over the last two years, in particular the recognition of file formats of most other Unix systems (FreeBSD, SunOS, Solaris, System V etc.) and new interfaces to better accommodate peripherals, such as cable and V.90 modems, Ethernet and ISDN cards. Six million users This operating system has often been criticized for its lack of software. However, in addition to the commercial products developed by companies such as Caldera or Red Hat, there is an impressive quantity of free software. And they are the strength of Linux. Programs adapted by professional publishers, but also offered by anonymous developers: there are some for office automation, such as StarOffice, which performs the same functions as Word 6 and Excel 95, and which can even read files in Microsoft software formats. In the field of graphics too, image processing, scientific calculation, database management, system administration, programming, etc. And of course, for the Internet, like the Lynx program, which only processes websites in text form, or the famous Nestcape software, Navigator and Communicator. Coming from the world of education and research, Linux now claims 6 million users worldwide. Mainly among academics and developers but also, for some time, in companies. A third of Internet servers are currently running Linux, which is also the fourth most commonly installed Unix. A development that explains why IT manufacturers are starting to take a close interest in it. Until recently, the major manufacturers of the Unix world, such as Digital, IBM and Sun, only gave Linux relative importance. As for PC manufacturers, they were content to deliver their machines with Windows, citing "market demand". But for some time now, manufacturers like Dell or Hewlett-Packard and especially distributors of major brands and small assemblers have started to want to be able to provide an alternative to Windows. More recently, the main players in the sector have taken the plunge by integrating Linux into their activities. Here is IBM announcing in June a Linux offer for its servers, and Intel deciding, last September, to participate in the adaptation of Linux on its next 64-bit Merced processor, or Oracle planning a version of its database software for Linux on Intel servers. Not forgetting Informix, Computer Associates and Sybase which provide specific versions of their products, nor Corel and Adobe which are preparing software for Linux. Better still: Intel and Netscape, associated with two American venture capital companies, have just taken a stake in Red Hat, one of the largest distributors of Linux in the form of a ready-to-use version. As a result, Red Hat is considering creating a special division to offer Linux to companies and professionals. Taking on the general public Linux is gradually leaving the academic world to take on the business world and even the general public. Its big advantage: offering the functions of a Unix without this resulting in disproportionate costs. Hence its strong progression in the server sector. However, it still has a long way to go to seduce IT managers, who prefer to deal with a single contact rather than hundreds of developers, even if some service companies are starting to provide technical assistance for Linux. But Linux can count on the thousands of students who use it daily and who, when they arrive in companies, will know how to defend its colors. The revolution is underway.

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In the field of graphics too, image processing, scientific calculation, database management, system administration, programming, etc. And of course, for the Internet, like the Lynx program, which only processes websites in text form, or the famous Nestcape software, Navigator and Communicator. Coming from the world of education and research, Linux now claims 6 million users worldwide. Mainly among academics and developers but also, for some time, in companies. A third of Internet servers are currently running Linux, which is also the fourth most commonly installed Unix. A development that explains why IT manufacturers are starting to take a close interest in it. Until recently, the major manufacturers of the Unix world, such as Digital, IBM and Sun, only gave Linux relative importance. As for PC manufacturers, they were content to deliver their machines with Windows, citing "market demand". 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It was a holiday for the Linux community in France on Wednesday: Aful (the French-speaking Association of Linux and Free Software Users) signed a framework agreement with the Ministry of National Education. "It's the same type of agreement as those signed by the State with companies like Microsoft, Lotus or Bull," explains Bernard Lang, secretary general of the association. The agreement provides for "Aful's support for projects to network high schools, middle schools and schools" using free software, as well as "the installation of Linux workstations." For Stéfane Fermigier, president of Aful, the "symbolic dimension is extremely important. Before, teachers who had a project were met with a refusal from their principal or a head of the education authority, because an agreement had been made with this or that publisher." Today, "we are recognized by the Ministry of Education, we are considered as interlocutors for local authorities and academies", says Bernard Lang happily. The main advantage of free software in education: the savings made. Not only is Linux free, but it can be used on old hardware, which is not the case with Windows. Indeed, with each new version, most commercial software like Windows expands. To run these "obesiciels" (obese software) over the course of their successive versions, it is necessary to invest regularly in new hardware, approximately every three years. "Linux provides a means of recovering used machines from administrations and companies and providing them at low cost to schools", explains Stéfane Fermigier. But also to public places of access to the Internet or to administrative services. Linux would thus accelerate the democratization of the Internet and combat the risks of inequality.

## ###ARTICLE\_START### ID:675

Microsoft no longer knows what to think of Linux. Until the fall, the company preferred to treat with contempt this operating system distributed free of charge via the Internet and whose developers exchange manufacturing secrets to constantly improve it. Despite its 4 to 8 million users (according to estimates), it was just, in the eyes of the company, an interesting hobby for tinkerers. Linux, this program created in 1991 by a young Finnish programmer, Linus Torvalds, would not come out of the hard drives of "nerds" (computer fans). Reliability, stability, speed. However, we are now seeing this operating system flourish in companies. On Wednesday, the National Education decided to promote its use (read opposite). Linux is seriously beginning to encroach on Microsoft's territory, which controls 90% of the operating system market. And particularly on that of Windows NT, the product intended for professionals. "It's the Windows NT killer," says Stéfane Fermigier, president of Aful (French-speaking Association of Linux and Free Software Users). "Linux plays in the same division," adds this former student of the Ecole Normale Supérieure, 31, who teaches mathematics at Jussieu. A point of view widely shared, from Bernard Dufau, president of IBM France ("We think that Linux represents a threat to Windows in the long term") to Roberto Di Cosmo (1) ("there is no company rich enough - not even Microsoft - to compete with the combined talents of the best programmers on the planet"). The little software has already had some great publicity stunts: it was with Linux that the special effects of the film Titanic were created, without its viewers, it seems, having to suffer. More serious for Microsoft: Linux is carving out a reputation for reliability, stability and speed that is far superior to Windows NT. According to a study by the Datapro research firm, in 1997, it was the operating system that brought the most satisfaction to its users in business. An example: France Télécom uses Linux for its Voila site. This "portal" site (entry point to the Web) even sports a Linux logo on its home page (2). Its manager, Laurent Souloumiac, says he is very satisfied with this software, which is not only economical, but reliable: "I believe in it enormously", he adds, before noting that at France Télécom, "there are more and more people who use Linux or who are starting to think about it". Since the summer, the software has been attracting a cascade of IT companies. The major database developers (Oracle, Informix, Computer Associates) have announced products for Linux. On September 29, Red Hat, the main distributor of the operating system, announced minority stakes in its capital by Intel and Netscape. Such enthusiasm is not only based on the intrinsic qualities of the software, but also on the search for ways to reduce dependence on Microsoft. Which also knows, when necessary, how to use Linux. "A person in Helsinki can quickly write the core of a sophisticated operating system," said John Warden, Microsoft's chief lawyer at the start of the trial. An irritated comment from Scott Rosenberg, head of the multimedia section of the online magazine Salon (3): "When the company is in its usual management mode - crushing the newcomers and conquering the world - it pays little attention to the challenge posed by Linux. But suddenly, when it is useful to its objectives in the antitrust trial, it elevates Linux to the status of a competitor." A matter for specialists. Microsoft is hesitant about the attitude to adopt: recently, Steve Ballmer, number two of the company, publicly declared that Linux is a serious competitor. In a document submitted to the SEC (Securities and Exchange Commission), Microsoft says it expects increased competition from software such as Linux. However, Marc Chardon, president of Microsoft France, continues to think that its use "makes mastery of the operating system a matter for seasoned specialists. It appears that Linux does not currently meet the requirements of most companies and even less so of the general public" (4). Consultants from the research firm IDC France tend to agree with this argument: Linux would be a "fashion phenomenon in the face of a major market trend. This is not what will destabilize Windows NT in the long term", believes Thierry Hamelin. Virginie Bauvais, a consultant specializing in operating systems, emphasizes the virtual absence of Linux on the French market: "Apart from press articles and developer labs, its impact is barely visible." However, what is happening today with Linux is reminiscent of the evolution of another computer tool, also initially confined to research circles: the Internet, which forced Microsoft to urgently review its strategy. The evolution that brought the Web into businesses and individuals is happening today with Linux: the creation of graphical interfaces that can be used with a mouse makes its use comparable to that of Windows or MacOS (the operating system that equips Macintoshes). Office suites (word processing, spreadsheets, etc.) are beginning to appear. Netscape has long offered a version of its navigation program. The publisher Corel has announced a free version of its Word Perfect word processor for individuals. With these products, assures Stéfane Fermigier, "we can put Linux in the hands of just about anyone, from secretaries to executives". For individuals, "there is still a lack of CD-ROMs and games", he acknowledges. While waiting for them to see the light of day, the president of Aful recommends: "Work with Linux and play with Windows." (1) Co-author, with Dominique Nora, of Hold-Up planétaire (2) www.voila.fr

## ###ARTICLE\_START### ID:676

What is Linux? Like Windows, Linux is an operating system for personal computers (PCs). Comparable to a conductor, it is the software that makes all the others work. Linux is an adaptation of the Unix operating system for the PC. Until recently, Linux was mainly used by software developers, universities and Internet service providers. It is gaining ground in large companies, which use it mainly for their internal networks and websites. What is free software? This is software whose manufacturing secrets (called "source codes") are shared and distributed freely. Any volunteer programmer can thus participate in the development of the product, by proposing their own improvements. Is Linux really free? Yes, if you download it from the Internet. Linux is developed for fun, by volunteer enthusiasts. The CD-Rom versions are paid for (from 250 francs with telephone assistance) to cover the costs of pressing and distribution.

## ###ARTICLE\_START### ID:677

For two days, Microsoft has been facing the American justice system. The software giant is accused of illegal business practices. It is suspected of having, on numerous occasions, used the monopoly of Windows, its flagship product, to stop the development of its competitors and of having put pressure on computer manufacturers and software publishers. The opening of this trial, postponed several times, and whose consequences for the high-tech industry could be considerable, is giving rise to heated debates. In France, the controversy was rekindled by the publication of the book Le Hold-up planétaire, la face cachée de Microsoft (1), an interview between Roberto Di Cosmo, lecturer at the École normale supérieure (ENS) on rue d'Ulm, and the journalist Dominique Nora. Defending "free" software, that is to say free programs that any programmer can improve on condition that they make their work available to everyone, this researcher is leading a full-scale attack on the firm co-founded and directed by Bill Gates. Mediocre quality Roberto Di Cosmo recognizes only one quality in Microsoft's leaders: they are "pragmatic businessmen rather than technology visionaries." He believes that Microsoft launches products that are "very clearly inferior to those of the competition," or even downright bad on a technical level. The first version of Excel, the Seattle firm's spreadsheet, reportedly earned one of his students a "zero score." The talent of the world's number one in microcomputer software is to transform "its technical failures into commercial successes" thanks to "the heavy artillery of marketing." Microsoft is even capable of convincing users that the improvements made to the first versions of its programs represent a real "technological breakthrough." However, these "corrections" are financed by consumers who are forced to buy new versions of products that are both more complex to install and take up more and more space on their computers. To prevent the emergence of competitors determined to take advantage of its cumbersome features, Microsoft uses the "ivy tactic." It buys up a large number of its challengers. It also allegedly takes advantage of its dominant position to secretly modify Windows and "make all competing products unstable or unusable". It is precisely Microsoft's business practices that are at the heart of the trial. But the examples cited in the book are not always entirely convincing. Some are based on simple rumors circulating on the Internet. Others are the resumption of arguments put forward by Microsoft's competitors. "If Microsoft had conquered these markets fairly with good products, no one would find anything wrong with them", assures Roberto Di Cosmo. In order to support this thesis, he develops a "technical" criticism of the Seattle firm's products. Based on a poor quality architecture originally the MS DOS operating system "bought and patched together in a hurry", the successive versions of Windows could only be increasingly heavy and increasingly slow. More seriously, the different versions of Windows, including the one intended for businesses, Windows NT, are said to have serious security flaws. They are said to be largely permeable to hackers and computer viruses. Defending another vision of the future of computing, the researcher defends free software, one of the most illustrious representatives of which is the Linux operating system. The latter has acquired its letters of nobility thanks to the contributions of thousands of programmers from all over the world. "A Manichean and simplistic vision" The researcher's thesis is of course contested by Microsoft. "Mr. Di Cosmo has a relatively Manichean and simplistic vision of things," assures Olivier Ezratty, marketing director of the French subsidiary. He considers his work to be "lacking in nuance and poorly documented." According to him, the "heaviness" of Windows must be considered as a "legacy of the past." The software giant must also "take into account the installed base, and previous versions of Windows." Even in new markets such as the business market, which Windows NT is aimed at, or the small portable device market that the company hopes to conquer with Windows CE, "it is not possible to wipe the slate clean", continues Olivier Ezratty. Reining in the giant However, Microsoft does not dispute the heaviness of current versions of Windows. But Olivier Ezratty points out that the goal is to offer "within 3 to 5 years the same basic architecture for PCs, based on a new technological core, that of Windows NT". Only the graphical interface and the functionalities will differ depending on the target markets. "We must compare like with like", notes Daniel Ichbiah, author of a book on the history of Microsoft published in 1995, translated into 15 languages and sold over 200,000 copies (2). "Windows is a "centipede" designed to work on hundreds of different computers, and to be compatible with the maximum number of peripherals such as printers, game controllers, etc.," says this expert on the Microsoft world. Thanks to these formidable financial resources, Bill Gates' firm "tries many experiments. And it sometimes makes mistakes." But in the field of office automation, for example, it is the "real innovations introduced by Microsoft" that have allowed it to become number one. The Excel spreadsheet has managed to establish itself "thanks to its graphical interface" following a formidable battle against Lotus' 1-2-3 program. Believing that Microsoft has established itself thanks to "a constant search for improvement," Daniel Ichbiah recalls that the first versions of Windows were shunned by consumers. "It took Bill Gates 7 years to impose his idea. He had to wait for the launch of version 3.0. » The recent success of the interactive encyclopedia Encarta is proof, according to him, that "when Microsoft introduces real innovations, it pays off". To claim that the firm founded by Bill Gates has never really innovated is therefore "a monstrosity", observes Daniel Ichbiah. On the other hand, it is certain "that from 1988-1989, Microsoft found itself in a position where it could complicate things for other publishers", he continues. The danger? "Microsoft can buy up an impressive number of small companies or sell some of its software at knockdown prices. It is certain that Microsoft must be reined in. But we must also not give in to paranoia", concludes Daniel Ichbiah.

## ###ARTICLE\_START### ID:678

Psst... The computer revolution in schools has begun. Haven't you heard about it? However, it has indeed begun, it is happening quietly in schools, despite the silence and ignorance of the Quebec Ministry of Education. But be careful: this revolution has nothing to do with connecting schools to the Internet and the millions of dollars invested in the purchase of "improved" and "super-powerful" computers in Quebec schools. No, this revolution began in a very small school in northern Montreal, Les Trois Soleils, which had the good idea of giving new life to its fifteen old PC 386 and 486 computers with only 4 MB of RAM, antiques that even recycling companies don't want anymore. Today, students surf the Internet using version 4.04 of Netscape and they write their work with a word processor. And the performance is remarkable. The reason for this miracle? The shelving of the Windows operating system in favor of its only real competitor today: Linux Invented in 1991 by the Finn Linus Torvald, this operating system is now supported by several computer giants such as Netscape, Intel, IBM, Corel, Oracle, Sybase, Informix, Computer Associates and.... its six million users, mostly programmers, who have voluntarily developed this robust operating system. The use of Linux is growing by 80% per year and has become the symbol of the triumph of distributed intelligence against and against Microsoft's quasi-monopoly. Oh yes, I forgot one detail: Linux is free and open source. The source code is open to all. A revolution of intelligence But what do Quebec schools have to do with all this? They are best placed to take the Linux turn, and yet, they are not taking it, believes Jean-Claude Guédon, professor in the department of comparative literature at the University of Montreal, who has just written a brick in the magazine Québec Science. In his "Open letter to Minister Pauline Marois," he reminds us that Linux runs on almost all chips and computer platforms, that the source code is open, so it can be modified, improved, adapted to one's needs, and that it would allow us to recycle old devices in schools or those that companies are getting rid of. Jean-Claude Guédon calls for a revolution in intelligence, which involves training students to use this software and their participation in an international movement to develop free software. The millions currently spent on purchasing equipment and software would be much more useful there, he specifies. An idealistic and "unplugged" visionary, Jean-Claude Guédon? Nothing less certain. Last week, the Montreal segment of the pan-Canadian Linux Installation Festival attracted over a hundred people to the École Polytechnique in Montreal. Elsewhere in the world, Linux is also gaining significant support. In France, for example, there is growing interest in free software. In an interview with Club-Internet, Jean-Noël Tronc, the technical advisor to Prime Minister Lionel Jospin for information technology and society since 1997, spoke out in favour of free choice of operating systems. Closer to home, the educational site L'Infobourg is currently hosting an online debate on the issues surrounding the computerization of schools, taking up some of the elements of Jean-Claude Guédon's tome. The recent publication of the text "École: souris, tu m'angoisses" in the magazine L'actualité certainly has something to do with it... A metaphor for sovereignty Many of you reacted to last week's column. A reader pointed out to me the existence of the website of the Association of Sovereignist Internet Users, where "the real political debate is supposedly taking refuge". After checking, I'm starting to believe that they are right. I tried four times to download their song Vers mon drapeau, but in vain. The download systematically stopped at the 55% mark. From there to seeing it as a metaphor for the sovereignist movement, there is only one step... Bookmarks corner Association of sovereignist Internet users www.ais.qc.ca Jean-Claude Guédon's article in Cyberscienceswww.cybersciences.com/cyber/4.0/oct98/sommaire.htm L' École Les Trois Soleilswww.trois-soleils.org/terminaux.html Linux Québecwww.linux-quebec.org Linux HomePage (French) uhp.u-nancy.fr/linux/ Interview with Jean-Noël Tronchttp://www.club-internet.fr/rencontres/tronc/index2.html File on Linux in the multimedia section of the newspaper Le Mondehttp://www.lemonde.fr.acces.bibl.ulaval.ca/multimedia/sem4098/1032.htm Current events: Souris, tu m'inquiètes http://www.maclean-hunter-quebec.qc.ca/ecole.html http://www.infobourg.qc.ca/articles/244.html andreb@memento.com

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"To end the Bill Gates era!" Tomorrow, this slogan will envelop, in bookstores, the first anti-Microsoft attack to go beyond Internet circles, the diatribes of aggrieved competitors and the soliloquies of disgruntled users. Le Hold-up planétaire, a book of interviews between Dominique Nora, a journalist at Nouvel Observateur, and Roberto Di Cosmo, a computer researcher, is being published two weeks before the opening of the American administration's trial against the software leader. The book revisits the complaint that gave rise to this trial, but engages in a much broader attack: "Microsoft sells us expensive mediocre products that we don't want, and this monopolistic company forces us to pay a tax on information when it changes its standards." A lecturer at the Ecole Normale Supérieure, Roberto Di Cosmo, 35, is already known to tens of thousands of Internet users who have read his anti-Microsoft prose on the Web. In March, he published a text entitled "Piège dans le cyberespace" (1) on the Quebec site Multimedium, dedicated to the latest news on new technologies. He had already accused Microsoft of "brainwashing" and "extorting consumers" (Libération, April 10, 1998). The author said he was impressed by the reactions to his text: volunteers translated it into English and Italian. Others are refining versions in Spanish and German. Di Cosmo receives at least ten emails a day on the subject. But, he explains, "we had to give more impact to "Piège"". Since the text was "too big to be published in a newspaper and too small for a book", he accepted Dominique Nora's proposal at the end of June to detail his argument in a long interview. Microsoft's success, he tells us, is not due to the quality of its products or its capacity for innovation, but to its unfair business practices and aggressive marketing. The "trap" he already described on the Web would close in three stages: forcing the sale of Windows to PC manufacturers, forcing users to buy new versions of its software, and sabotaging or plagiarizing competing products. All accusations that Microsoft refutes (see opposite). The book begins with an apocalyptic description of a world where the computer giant would control all information flows ("Microsoft is creating a technological instrument that could actually be used to control our lives"). More concretely, it concludes by examining alternative products to Windows. The author considers the "engine" of the Macintosh to be "better run than that of PCs", but ultimately recommends the use of the Linux operating system, a free (2) and open source software. By recovering "equipment still in working order, but put aside because of the mad race for speed", by administrations or companies, we could "equip our schools while spending almost nothing". (1) www.mmedium.com/dossiers/piege/ (2) Software whose manufacturing secrets are freely shared.

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Microsoft's legal advisers are among the summer's biggest casualties. Yesterday, a month before the opening of the antitrust trial against the software leader (September 8), they were already at work in Washington, settling a few preliminary points with federal judge Thomas Jackson. Yesterday, the latter demanded that Microsoft reveal to the justice experts the most intimate code of its Windows software (known as the source code). Bill Gates fears this striptease like the plague. According to Microsoft, the Windows source code is "the software equivalent of the Coca-Cola formula". The affair is perhaps more symbolic than technical. The American government accuses Microsoft of having combined its famous Windows (present on 90% of PCs) and its Internet browser (Explorer) into a single product. By relying on its quasi-monopoly in operating systems, Bill Gates' firm would thus have a stranglehold on the Internet market. Consequently, the courts would like Microsoft to separate Windows and Explorer. Impossible, replies the person concerned, the two software programs are closely integrated. Well, let's see, retorts the courts. Hence its demand for the source code. Microsoft is setting drastic conditions for the summer striptease. For example, the IT experts mandated by the judge would have to agree not to work on products competing with Windows for a year. In addition, they would not be allowed to work for certain software companies for eighteen months. In short, it is fair to say that these experts would be agreeing to stay out of the loop for a long time. Why so many precautions? The software industry delivers (on floppy disks, CD-ROMs or via the Internet) ready-to-use programs in the form of codes that can only be read by computers. This does not prevent copies, but it does preserve manufacturing secrets. The problem for users is that these indecipherable codes cannot be modified. It is impossible to correct them in the event of bugs, or to adapt them to specific needs. Hence the growing success of "free software", whose source code is public. According to Le Point of July 25, the French army is considering abandoning Windows and Microsoft software to turn to Linux, one of the best known and most powerful free software. The American justice system has of course no intention of making the Windows source code public. But it is attacking a harsh symbol.

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No more entering the Internet through the back door! To access the network of networks, there is now only talk of a "portal". The word, which appeared in the specialized press a few months ago, is spreading like wildfire. It refers to the home page that every Internet user displays on their screen when they connect to the network. The portal is now the stake of a fierce commercial battle. Because the portal appears to be the best place for advertising and the best showcase of the Net. A large number of Internet users pass through the portal and then navigate the network at their leisure. To "trap" them as soon as they arrive, the best thing is to place your message on this obligatory passage point. There are many "builders" ready to build the "walls" of this highly profitable location: Internet access providers, search engines, software publishers, content publishers. Everyone is now trying to design a portal that is as attractive as possible, to be selected by the maximum number of Internet users. Displaying the home page of your choice is indeed a very easy manipulation. To attract the maximum number of customers, but also to keep them, to build loyalty, a portal must offer the maximum amount of information and services in a minimum of space (one screen). Continuous information, stock market prices, weather, sports results... Addresses of online shopping sites classified by category (automobiles, flowers, clothing, etc.). Various functionalities such as e-mail... The best thing is still to offer the Internet user the possibility of personalizing their page according to their interests. The portal informs like a daily newspaper of which it would be the "front page", but it is also a directory of addresses like the yellow pages, a search engine, a stock market terminal, or even a shopping mall. Among other things. In this emerging market, some access providers have started with a head start by creating specific content from the outset, which is displayed by default as soon as you connect to the network. The initial goal was to offer this service, to differentiate themselves from firms offering only a simple technical connection to the Internet, but also to compete with online service companies such as AOL, CompuServe or Infonie. This added value is now losing its appeal due to the many portals now available on the market. "Our portal reserved for subscribers will be enriched with other functions at the start of the school year," promises Fabrice Sergent, CEO of Grolier Interactive, "and we are going to develop Hachette.net into a portal open to all Internet users..." Search engines such as Yahoo also quickly understood that if they wanted to make better use of their audience, or even expand it, they had to offer additional services. "Instead of immediately sending their visitors to other people's sites, search engines have transformed their home pages into places where people can make purchases, read the latest news, and get advice. This allows them to sell advertising space as well as links to merchant sites," explains Christopher Price in the Financial Times on June 24. Yahoo has rolled out this strategy worldwide, particularly in France, with a French-language portal pointing to French-language resources. Its My Yahoo site (currently only in English), which users can customize according to their tastes, should also be localized by the end of the year. Aware of the phenomenon, Disney made headlines in the trade press on June 18 by announcing the purchase of 43% of the capital of the search engine Infoseek. Disney, whose sites attract "only" nine million users per month compared to Infoseek's 14 million, is counting on this integration between a search engine and its many contents to improve the visibility and therefore the profitability of its online services. The latest arrivals in this niche, Netscape and Microsoft, find another area of confrontation here. They too want to take better advantage of their site's large audience. Especially since the development of free software deprives these publishers of part of their income. After deciding to give away the general public version of its browser for free (as Microsoft was already doing), Netscape is reorienting itself towards services. Its Netcenter site is being transformed into a portal, a beta version of which is currently available on the Web. It includes a search engine (in partnership with Excite), links to merchant sites, as well as various services facilitating online purchases. Ultimately, this portal should be "portable". That is to say, an Internet user could use it to access the Net, not only from his computer, but also from anywhere: from another office, from a friend's house or from his hotel room. And then find his address book, his favorite links, wherever he is without carrying anything. A Netcenter should be developed for the French market; but it seems that development is not yet very advanced. Microsoft's, MSN Start, is, however, ready. "We're ahead of the curve," explains Isabelle Poli, MSN product manager, not without pride. Start, Microsoft's portal, is still in beta in the United States, while it is operational in France. Microsoft's sale of its access provider business to France-Télécom in November went hand in hand with a new direction in the field of online content. There are no longer any products financed entirely by Microsoft, as was the case for early MSN subscribers. Having failed to make this activity profitable, the firm is now proceeding by exchanging know-how. The "news clips" displayed on Microsoft's portal come from France-Info as well as France 3, whose site is created using Microsoft technologies. "We provided them with a light version of the MSNBC platform," continues Isabelle Poli. Start is currently one of the only customizable portals in French and accessible to everyone, regardless of their access provider. In addition to general information, you can display the weather in your city, choose more technical or scientific information, Le Monde informatique, Ziff-Davis editions, etc.), economic and financial. Microsoft displays a selection of sites classified by category. There are also links to forums grouped around eleven areas of interest, as well as direct access to your mailbox provided you are a Hot-Mail customer (free email service, recently acquired by Microsoft). About ten people are working on the development of Start in France. "We are giving ourselves three years to balance the site with advertising as the only source of income. Later, some personalized information could become chargeable, and we could ask our content partners for financial compensation. We will charge for visibility," says Isabelle Poli confidently. And why not? Is it not said that AOL has garnered more than 250 million dollars (1.5 billion francs) in contracts in the United States with mail order companies wishing to display their service on the AOL portal? Now Start benefits from a good launch pad: this portal is systematically displayed as the home page for all users of the Microsoft Explorer 3.0 browser and soon 4.0, and for all former MSN subscribers, now taken over by Wanadoo. Oddly enough, there are few traditional publishers from the paper press among the portal manufacturers, with the exception of a few specialist publishers such as Ziff Davis, publisher of newsletters and specialist computer magazines; its portal directs to many sites related to its field of activity: to get information, buy, have stock quotes of firms in the sector, etc. Reduced to being mentioned on other people's portals only as partners, traditional publishers will only be able to rely on the quality of their content to promote themselves. Useful addresseswww.hachette.net.fr www.yahoo.fr www.infoseek.com Netscape's netcenter: www.netscape.com Microsoft's French portal: fr.msn.com Microsoft's American portal (beta version): home.microsoft.com - www.zdnet.com www.excite.fr - www.lycos.fr - www.snap.com A portal of portals: www.portalcentral.com

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Yesterday, in order to bring down a mafia godfather, the American justice system was going to dig into his tax returns. To catch Bill Gates, it reviewed the emails exchanged at Microsoft. It found what, from a distance, looks like a peccadillo: a vague plan to share the Internet browser market with the firm Netscape. The antitrust services thus ended up finding a "hold" in the case, which they immediately described as an "illegal conspiracy" (are there any legal ones?). America's grievances against its former darling are obviously broader: it suspects him of wanting to take over the Internet by relying on his arch-dominant position in IT. Bill Gates could thus become the great toll collector of cyberspace, this new American "new frontier". A crime that is difficult to qualify in legal terms, but a great offense to the country's mythology. To avert this threat, the American justice system can force Microsoft to dismantle itself, that is, to break it up into independent entities (so that the company can no longer use its monopoly in operating systems to impose its other programs). This is the fate that befell the powerful AT&T company in 1984, which deprived it of its local telephone business. However, no one - not even Microsoft's worst enemies - really believes in such a violent outcome. If it decides to take action, the justice system would probably be satisfied with more targeted measures: separate sale of the various functions included in Windows, public access to the technical specifications of the operating system, etc. That would already be a lot. The whole problem posed to the judges is summed up in one question: can Bill Gates (in his policy of hegemony) be stopped without killing Microsoft? The Seattle company, which admits no fault other than "giving its customers the products they want," has refused in advance any change in its strategy. It will be all or nothing. On paper, therefore, the case looks bad. In practice, the judges can count on a precious ally: time. The proceedings against Microsoft will probably drag on for several years. In the meantime, unless it is suicidal, Microsoft should adopt a (lower) profile. This was IBM's attitude when it had the antitrust services on its tail a few years ago. The world's number one in computing emerged cleared but weakened. These years - centuries in the light of the digital revolution - could also see the emergence of new techniques likely to undermine the foundations of Microsoft's dominance. Windows could be less necessary tomorrow than it is today. The idea of the "Internet terminal", free of all Microsoft software, goes in this direction. Access to the Internet is still too slow to allow the take-off of a machine drawing its intelligence from the network (also called a Network Computer). The most unexpected - and perhaps the most serious - obstacle on Bill Gates' path is called "free software". If the Internet is the (still virtual) Eldorado of merchants, it is also the gathering place of programming artists. Thousands of computer scientists use the network to design, together, the software they would like to use. All this voluntarily and openly. This freeware movement has produced excellent programs, some of which are leaders in their "market". "Free software corresponds to a takeover of power by users in the face of unfair commercial conditions imposed by publishers", summarizes a freeware advocate. Any abusive power ends up secreting a counter-power.

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IBM is joining the "freeware" movement, and that's not a small piece of news. Next week, according to the cyberjournal news.com (1), the world's number one computer company will take up the cause of Apache, a software program well known to Internet users: it manages nearly half of the world's websites. Apache is "free software", meaning that it was designed voluntarily by a large community of computer scientists and is distributed free of charge. Along with the famous Linux (Microsoft's Windows operating system), this program is the flagship of a "rebel" movement, which believes - and proves - that software is much better when it is born and lives outside the market. IBM has decided to link its new products for website designers to Apache. A way of recognizing that, in this sector at least, freeware has won the game. "I think what we're going to do now is legitimize this approach with companies," a Big Blue executive told news.com. Up until now, free software has been snubbed by many companies on the grounds that it's an uncertain terrain (no maintenance guarantee, unscholarly legal status, etc.). But if the world's number one itself is coming to lend its support, why hold back now? Last winter, Netscape led the way by making its Internet browser freeware. The Californian firm was no longer able to compete with Microsoft and its army of programmers. Internet Explorer, Bill Gates' competing product, was inexorably eating away at market share. So Netscape turned to Internet users to ask for a helping hand. In return, it made public even the source code of its product - its most intimate structure - and gave up its rights (Netscape is making up for it with other products and with the revenues from its Netcenter site). IBM's strategy is less directly anti-Microsoft, since it basically consists of adopting the "market" standard. But, through its ripple effect, it could prove much more devastating for Gates' company. Especially since the number 2 in Web servers, behind Apache, is none other than... Microsoft. It would obviously be jumping the gun to conclude that Big Blue is starting to vote "radical left" and destroy the market economy. The history of computing is, however, full of surprises. When in 1981, IBM chose Microsoft's MS-DOS to run its first PC, it did not suspect for a second that it was thus putting Bill Gates into an orbit that would make him the richest man in America. (1) www.news.com

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American consumer advocates Ralph Nader and James Love lamented Monday that it is impossible to buy a brand-name PC without also buying Windows, Microsoft's operating system. In a letter, they asked the Justice Department to address this obstruction of competition. "Consumers do not even have the option to return Windows and get a refund," they wrote, after investigating the manufacturers. "No brand sells PCs with an operating system other than Microsoft, not even as a boot option." Thus, buyers "pay a tax to Microsoft every time they buy a brand-name computer." At a minimum, Microsoft should be prevented from signing contracts with computer makers "that require them to charge consumers for Windows even if they do not want it." In their letter, Ralph Nader and James Love argue that the software giant "uses its power to discourage PC manufacturers from offering their computers with non-Microsoft products, including operating systems. There are several alternatives, including free software like Linux or Free BSD (a Unix system, editor's note), or new systems like BeOS. It will be difficult for them to break through if consumers cannot buy PCs with these products preinstalled." Microsoft responded by ensuring that manufacturers have the option of equipping their machines with the operating system of their choice. www.cptech.org

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Computers in schools! A nightmare for some, an extraordinary opportunity to rethink pedagogy for others. A real problem arises, which recalls the insertion of the printed book into pedagogy. The role of the teacher, that of memory, the school institution were turned upside down. The same goes for computers. We cannot simply install machines and believe that pedagogy will automatically improve. It is a question of transforming it in depth from the outset. To summarize, it is a question of thinking and not spending. Indeed, the pedagogical project is inseparable from the equipment project. Let us examine the situation in Quebec - it is less threatening this way. Quebec intends to spend approximately 1.2 billion francs over five years to, it is said, bring schools up to date. How do we proceed? Quite simply, we buy computers for 60 million the first year, and so on, and in five years, we imagine that the schools will be well equipped. In doing so, we equip the computers with commercial software at a considerable cost. What's more, every two or three years, we are forced to buy new versions of this software which in turn require renewing the equipment. This is the tragedy of "obesiciels", this software of which each new version results in a swelling that makes the equipment obsolete. Thus, in three years, the computers purchased in 1998 are outdated. Everything has to be started again. If we decide to rent instead of buying, we shift the problem: we spread the burden, but it remains considerable, unsustainable. From an educational standpoint, these software programs do not teach computer culture, but rather what I would call a computer tincture: writing a text, performing a few calculations, connecting to the Internet... A bit like stopping at learning to read, without subsequently studying literary texts. So what can we do? Let's imagine an action plan - after all, this is only Quebec... Let's start by allowing companies to depreciate their computer equipment in two years on condition that they return it, in working order, to the Ministry of Education. And let's equip this equipment mainly with free software. Developed by volunteer teams, these programs are constantly improved thanks to the free circulation of their manufacturing secrets. As a result, their quality is often superior to that of commercial software. Among other advantages, they are programmed to seek greater efficiency: a new version does not necessarily require more efficient hardware. In this way, the artificial aging of the equipment is much less noticeable. All old hardware (PCs with microprocessors prior to the Pentium) can be used. Commercial operating systems, such as Windows, are installed in parallel, but they do not constitute the basic framework of this equipment. Students become familiar with the major functional families of software (office suites, image processing, etc.). But they do not just learn on the surface. They are involved in setting up the equipment, they explore under the hood. Instead of a dye based on a few word processors, a real computer culture develops. A national network of skills around the new educational tool is created and lives through the network. Competitions are organized between schools to stimulate creativity. The creation of a popular national encyclopedia, by hundreds of thousands of students involved in the study of their environment, gives rise to an extraordinary heritage and living archive. Based on collaboration, mutual aid, and group work, this pedagogy offers the prospect of real mastery of computers and networks. But it also awakens civic sense, gives meaning from childhood to the notion of citizenship. If Quebec does this, it will become the richest country in the world (and not just in money). But, once again, it is only about Quebec... (\*) Jean-Claude Guédon (guedon@ERE.UMontreal.CA) is a researcher and professor at the University of Montreal.

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Michel seems to be contemplating in front of a PC screen. His hand barely touches the mouse, as if he were afraid of damaging it. "I'm learning to use a computer," he says modestly. A 54-year-old unemployed person, classified as "long-term," he heard about the computer courses at the Université ouverte (UO) on Radio Libertaire. He comes every Tuesday to familiarize himself with the machine. "When I was working, all these tools didn't exist. Today, computers are everywhere. So I educate myself." The teacher, a technician from the RATP, a volunteer like all the trainers at the Maison des ensembles in Paris, asks the six "students" gathered in the attic that serves as a classroom to open a folder, then the right file, to find the CV that is being prepared. That evening, the presentation will be refined. In song, because, one floor below, the choir of the association Droits Devant!! is in full rehearsal. No one complains. About forty associations and unions have been living here for eighteen months, squatting activists populating all the floors of this immense dilapidated house, which until December 1996 housed the unions of the Ministry of Labor (1). The computer workshop is undoubtedly the most frequented of the Open University. "Normal, it offers a direct utility to the public we target", notes Anne, its manager, a biology student. The public in question is "all those excluded from knowledge", those who cannot afford paid training, the unemployed, the unqualified, the homeless, the undocumented... The Open University was created for them, initially on rue du Dragon, in the 6th arrondissement. The very first "let's watch math" workshop, "a symbol of exclusion through selection," explains Luc, a founding member of the university, has spawned offspring. The UO now offers courses in oral expression, history, English, and more, all free of charge, although a fee of 10 to 100 francs per year is suggested. The computer workshop will celebrate its first anniversary this summer. "Initially, we weren't directive at all," says Anne. "We thought we'd adapt the courses to demand, but it went off in all directions." However, there's no question of imposing exams or validation of the training received. Since January, the forty or so trainers have divided the teaching into three weekly courses: office automation, where you learn to use word processing programs, spreadsheets and database software; programming; and finally the Internet, where you turn people away. "The Web is a new space for speaking out," explain the founders. "So it's also a new space for exclusion. The courses allow everyone to invest in it, to appropriate it to access information, exchange, spread messages, and campaign." For the moment, only one manufacturer has agreed to give up a batch of five brand new multimedia PCs. The others have been picked up here and there. An access provider is also playing the game. On Saturdays, the Internet is freely accessible, and everyone can join in without fear of being seen as ignorant. "People really want to learn," explains Jean, a "teacher" in office automation and Internet courses and an electronics teacher in real life. "It's a change from my usual, rather passive audience. Here, the "raw teaching" aspect brings me a lot. It's a constant questioning of my teaching." Activists from various associations (Comité des sans-logis, Droit au logement, etc.) meet up in class, learn how to design web pages, become webmasters and gradually strengthen the network of associations present in the Maison des ensembles. "There are only broke people in this house, but people take charge of themselves," says Martine, 47, who came to attend the introductory Internet course. Unemployed for two years, an activist at Ras l'front and AC!, she would like to have an email address and exchange with other associations around the world. "At least tonight, I will have learned something. It's much more useful than queuing at the ANPE." Through the associations present here, the Open University also attracts people from the neighborhood, others encountered at demonstrations, those who read the posters stuck on the walls of Paris, and just about anyone curious to discover the network of networks. Like Louis, a 28-year-old horticulturist. He entered the Open University somewhat by chance, "because [he] doesn't have a computer at home, and here he found the possibility of accessing the Internet". A specialist in soil erosion, he is currently creating his own page on the subject, convinced that others, as passionate as he is, will be interested. "The fascination with technology is not our thing," explains Isabelle, a computer scientist at a research institute and an Internet trainer at the Open University. "The media coverage of the Internet forces us to demystify a lot of ideas. Above all, we are trying to give meaning to this training, such as learning how to behave on the network. Sharing and cooperation are the basis of the Internet." Those who come here to create commercial sites would be systematically rebuffed. "We are focusing on email," she continues. "With the general hubbub on the Web, we are forgetting this instant tool, which costs nothing. It is the service to be appropriated as a priority." At the start of the school year, the teachers of the computer workshop will become students again, the time to familiarize themselves with Linux, an alternative operating system to Windows, which has the particularity of being free software: anyone can learn its manufacturing secrets and suggest improvements. Linux will soon be installed on the workstations of the Open University. "Microsoft is not inevitable," explain the workshop managers. "People will have the choice of working on Windows 95, but they must know that there is software that is just as simple, offers the same working environment and is free." Training everyone who wants to use free software is also the project of Laurent Chemla, a computer scientist at the origin of the Open School, another Internet training initiative (Libération, March 6). "The more volunteers there are to get involved to ensure that everyone takes ownership of the new tools, the better it will be," comments Isabelle. "That's the spirit of the Internet." (1) On the website of the Maison des ensembles (altern.org/mde.paris12/), we find the Dal, Droits devant!!, the Human Rights League, the CNT (National Confederation of Labor, anarchist), Agir contre le chômage, Sud, etc. The website of the Université ouverte: rezo.net/uo/ Maison des ensembles, 3-5, rue d'Aligre, 75012 Paris.

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Finally a BSA that does not threaten the populace with going to prison if they use pirated software. The difference? The best known, the Business Software Association, is a consortium of software publishers fighting against computer piracy (Libération, April 24). The second, Bidouilleurs sans argent, is an association whose goal is to "help computer owners who cannot afford to buy software". Created in April, this initiative comes from the team of Virus informatique, a small phenomenon in the computer press: this young monthly without advertising that denounces the excesses of the sector has today reached a circulation of 40,000 copies, according to its editor-in-chief, Olivier Aichelbaum, 27, also president of BSA. "We are not here to tell people that what they are doing is wrong," he specifies, "but to give them solutions." And to combat the dominant discourse: "People are going for the easy option; they are turning to the software that is most talked about. However, programs like Linux (an alternative PC operating system to Windows, Microsoft's flagship product, editor's note) are now available to the general public", at a low cost. First concern: to hype up free software, freeware and shareware (1), in particular by circulating information to the media. Among free software, BSA intends to promote Linux, Gimp (a "super drawing software"), Gnome Project (word processing), and StarOffice (a set of office software for Linux). But BSA is also calling on commercial software publishers. "Instead of throwing old versions of their products in the trash, we are asking them to make them available to users who cannot afford them, either for free or for a small amount." First result: Superbase, a database editor (which is used to keep the directory of its library for example), has ceded the rights of a previous version to BSA. The software will be offered for download on the association's website. Initially, the idea, rather childish, was to "have fun with the name BSA". Hence the use of the term "bidouilleurs". "Some people find that it evokes a pirate's den", admits Olivier Aichelbaum. "But our goal is not to pirate software. On the contrary, if someone uses Linux, they will not feel the need to pirate Windows." Basically, Bidouilleurs sans argent also fights against piracy. BSA and BSA, same fight, but with different weapons. www.acbm.com/bsa/ (1) Free software is characterized by the free distribution, particularly on the Internet, of its manufacturing secrets (the source code). Everyone can suggest improvements: bugs are spotted and corrected. Free software is not necessarily free. Conversely, freeware or shareware does not offer access to the source code. The first is free; the second is paid, after a free trial period.

## ###ARTICLE\_START### ID:688

Aful, the French-speaking association of Linux and free software users, was recently created to "promote high-performance, accessible and independent computing". Linux, an operating system installed on more than 5 million PCs worldwide, is the symbol of this computing (Libération, March 13). By free software, we mean a program whose manufacturing secrets, the "source code", are freely distributed. Among other advantages, bugs are quickly detected and corrected. Stéfane Fermigier, lecturer at the University of Paris-VII, is president of Aful. The board of directors includes Bernard Lang, research director at Inria (National Institute for Research in Computer Science and Automation), Jean-Paul Baquiast, State Controller and president of the Admiroutes association, Jean-Claude Guédon, professor at the University of Montreal, Philippe Quéau, deputy director of UNESCO and Dominique Chatelin, general manager of Netscape France. On March 31, Netscape published the source code for its Communicator software on the Web, joining the free software camp.

## ###ARTICLE\_START### ID:689

One thing always amuses me when I drive in the United States: the mottos on license plates. The differences between states are delicious. While New Hampshire has chosen "live free or die", its neighbor, Maine, asserts its tourist vocation by displaying "the country of vacations". To each his own values. On the information highways, it's a bit the same. There is computing dominated by major players - IBM, Apple, Intel, Microsoft - and free computing. The latter lives thanks to more or less independent, more or less structured developers, ranging from tinkerers to academics, from software authors to SMEs. Often driven by a libertarian spirit, they bring to life a very different kind of computing from that which is sold to the general public, even professionals. In France, it is fashionable to smile about it: "libertarian" rhymes with "naive" (two epithets spontaneously attached by a political scientist colleague of mine to whom we were explaining the current anarchist representations on the Internet). However, it is a dimension that should not be neglected: at the risk of trivializing a word that is already too trivial, it is at the source of a computer "culture" that values the individual, exchange, trust, and informal procedures. This culture thus produced the famous Linux system, the result of combined and disinterested efforts; but the Internet also owes it a lot. It sustains an original distribution system, "shareware" ("contributory software"), which we try before paying. Sometimes the software is even free ("freeware"). We must defend this culture, because it is threatened by the actions of the big IT players who tend to stifle diversity. This is the defense undertaken by those who advocate the use of Linux in schools in preference to Windows, and suggest the use of "free" software (shareware or freeware). They are right. Concerning Linux, the simplest argument remains its superiority as an operating system, as well as the control it offers to the user. This does not mean that it will transform us all into computer scientists - when we teach children the mechanisms of an engine or biological functions, we know that they will not all be mechanics or doctors. There is also a more strategic reason: to support a more modest industrial fabric in appearance, but extremely dynamic, not to tie itself exclusively to multinationals. However, the computer market will not live on freedom and fresh water and it is not good to make a demon of Microsoft (it was once IBM). Certain practices of Microsoft must certainly be denounced. We must not hide the bugs that too often affect its software, the incompatibility of its standards, the limits of Windows (reached as soon as we try to launch an old-generation game that is a bit memory-hungry). But it must be emphasized that Microsoft's products are often more successful than Windows. We must also recognize that Microsoft has been able to evolve from a supplier position (of IBM) towards an autonomous, renewed industrial strategy, based on often judicious intuitions (in particular the idea that the software industry offered considerable margins as a whole) before integrating a financial strategy. This was not at all obvious. Promoting "free" software in schools does not mean kicking Microsoft out of France, but rather avoiding accustoming children and teachers to the products of a particular firm and its standards. It is about training users who will put pressure on their suppliers for better and more diverse products, and bringing large companies back to the rules of the market, while creating a "free", creative and dynamic sector that depends less on a massification of trade. If we succeed, and it takes willpower above all, it will be a bit like "living free in the land of vacations". (\*) Thierry Leterre (tlphi@compuserve.com) is a professor at the Institut d'études politiques de Paris.

## ###ARTICLE\_START### ID:690

Hotmail and Web TV, two companies acquired by Microsoft, still use Apache software to run their web servers, rather than the parent company's products... This was revealed on March 20 by the "Wall Street Journal". Some estimates give only 22% and 10% of market shares to Microsoft and Netscape products, compared to 47% for Apache, which is much less well-known... First advantage over its competitors: it is free. Second advantage, in the opinion of its users: it is better. Because Apache is free software. Not only is its distribution free, but also that of its manufacturing processes. Users can thus modify it as they wish, correct bugs, improve it, adapt it, and share their work with others. Like the Linux operating system ("Libération" of March 13). Last Tuesday, Netscape switched its browser to this model. As Jim Barsksdale, the company's president, explains, "thousands of developers around the world" will contribute to improving the software or adapting it (multi-language versions, for children, etc.). As a result, Netscape contributes to making free software an alternative model, a counter-power to Microsoft. But by preserving its business practices in the server domain at the same time, Netscape contradicts itself: on the one hand, it adopts the free software model, on the other, it competes with Apache, which symbolizes this model. Netscape seems to go all-in, but is only halfway there. To counter Microsoft in the long term, there is one solution: the Netscape-Apache alliance.

## ###ARTICLE\_START### ID:691

Last January, Netscape caused quite a stir when it announced that it intended to distribute not only its Navigator browser for free, but also the underlying computer source code for its flagship product Communicator. In other words, next Tuesday, Netscape will hand over the keys to the kingdom to anyone who asks for them. It's a bit like the Colonel suddenly deciding to give everyone his famous secret recipe for fried chicken. Behind this spectacular gesture are economic imperatives and, above all, the resurgence of a social philosophy that had been eclipsed by the commercial boom of the Web over the past two years. A vision of software that, if successfully implemented, could fundamentally shake up the established computer order. After a dazzling start, Netscape has had to face its share of challenges over the past 18 months. Its supremacy in the browser market has been seriously shaken by Microsoft, whose Internet Explorer has managed to grab a share of about 40%. Netscape's product diversification strategy (servers, indexing and e-commerce systems, etc.) has not yet delivered the expected results. Result: as of December 31, the Mountainview firm posted losses of $155.5 million, compared to gains of $24.4 million for the 1996 financial year. It had to lay off nearly 10% of its employees. It therefore needed a new lease of life and, above all, to find a way to respond to Microsoft. But how do you fight a giant that distributes its browser for free? Netscape's response is to publicly distribute the source code for the next version 5.0 of Communicator. Next Tuesday, at http://www.mozilla.org , programmers will be able to access the Communicator code to design and develop their own browsers or related products. Netscape has already begun distributing its CCK (Client Customization Kit), which allows programmers to customize their Netscape browser by adding their own logo, bookmarks, and configuration wizards. Under the preliminary version of the Netscape Public License, it will now be possible to use the source code to improve the browser and create other products, provided that the new "enhanced" code - and that of the new products - is deposited in the "public bank" of source code. The Freeware Philosophy This move by Netscape is inspired by the freeware philosophy, as popularized by Richard Stallman of the FreeSoftwareFoundation with his concept of the GNU GPL (General Public License). The idea of freeware should not be confused with the notion of free software. The term "free" here should be taken to mean "free." The philosophy underlying the movement is that information, like freedom of expression, is an inalienable right of individuals and that it must be shared for the benefit of society. The goal is to allow anyone to use and modify the source code of a product as they wish in order to create a true community of users who thus actively contribute to the development of the code. The most spectacular example of freeware is undoubtedly the Linux operating system which has continued to rally followers since 1991. The philosophy of freeware comes from the liberal "West Coast" ideology which participated so actively in the rise of the UNIX/Internet mode and whose social activism clashed with the mercantilist aims of companies wishing to make money from the Net. The current predominance of companies on the Net should not make us forget that it is partly dependent on the community spirit that these pioneers instilled in it. Netscape intends to oppose Microsoft not so much a particular product as the entire community. The firm will thus become the curator of the code: distribution of the original code and modifications made by the community of programmers, setting up discussion groups, dissemination of information, collecting lists of bugs, etc. Netscape can thus significantly reduce its code development costs, while reconnecting with the original community philosophy of the Net. Microsoft versus Netscape, the commercial empire versus human fraternity: Netscape will have understood that it is difficult to defeat Microsoft on its own ground. In this respect, Microsoft's recent troubles with the American Department of Justice tend to demonstrate that this firm is capable of being its own worst adversary. Netscape's strategy risks taking the freeware philosophy to an unprecedented scale. On the other hand, contrary to the spirit of freeware, programmers will be able to make their products profitable if the code remains public and accessible to all. Thus, nothing will prevent Netscape from reusing the new codes proposed by the community in its commercially offered products. Netscape is therefore betting on uniting economic reason and ideals of the heart, a laudable and ambitious goal but one that has lost more than one. Mozilla.org (Netscape)www.mozilla.org André Mondoux can be reached at andrem@interlink.net

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Bruno Oudet, president of the French branch of Isoc (Internet Society, an association working to develop the Internet), cites the two latest free software programs (distributed free of charge and freely modifiable) that are in fashion: with the first, you have to throw a pie at a character who resembles the boss of a large software company - this is an evocation of a misadventure recently experienced by Bill Gates in Belgium. In the second, a gun replaces the pie. But be careful, warned Bruno Oudet during a conference organized yesterday in Paris by Inria on the "economic issues" of free software: the fight for free software must not focus on Microsoft, but aim to "keep the conditions that have allowed the Internet to develop", thanks to this non-commercial software.

## ###ARTICLE\_START### ID:693

Two days to interest a population that is still largely ignorant of the appearance and usefulness of the global network in the Internet. It is a bet on curiosity that the multiple organizers of the Internet Festival, which will end this evening, have set themselves. All over France, associations, companies, and administrations are organizing demonstrations or open days. Imagination is contagious. The government itself is getting involved, by opening the doors of certain ministries, and even, for the Ministry of National Education, by sponsoring a conference on free (non-commercial) software. The party has spread to the Elysée, with Jacques Chirac establishing a day of training on the Net. But without abandoning, unfortunately, the wooden language in his message addressed to Internet users: "You have understood, the stakes are high (...). Together, we have a date with progress to adapt France to its times".

## ###ARTICLE\_START### ID:694

ILE-DE-FRANCE Paris Ier Image and cinema on the Internet The Cyberport multimedia space presents the latest news on French cinema on the Internet and offers workshops on the theme of image and the Internet. March 20 and 21, from 4 p.m. to 7 p.m. Vidéothèque de Paris, Forum des Halles. Info.: 01.44.76.63.99. www.vdp.fr Théolib Presentation of a theological-philosophical reflection site hosted by pastors and other active members of the Reformed Church of France. March 20 and 21, from 4 p.m. to 7 p.m. 4, rue de l'Oratoire. Info.: 01.42.60.22.98. perso.club-internet.fr/theolib/ Paris IIe Mondomix The site, launched on the occasion of the festival, aims to unite all those interested in the crossbreeding of cultures, in world music. Mondomix currently brings together 80 musicians, 14 labels, associations, and a few radio stations. From March 21, from 3 p.m. to 11 p.m. 15, rue Saint-Fiacre. Info: 01.42.59.29.95. www.mondomix.org Paris IIIe Gambit of Eurynome-chaos in action A dozen cities (Paris, Cologne, Cambridge, Istanbul, Belgrade, Skopje, etc.) are participating in this project which aims to establish a new relationship between plastic art and multimedia technologies. Performances, behavior of artists towards works of different conceptions, psychology, cultural reality... Ambitious. March 21, from 2:30 p.m. to 7 p.m. 32, rue de Picardie. Info: 01.48.58.47.82. www.aagif.fr/artw3/eurynome/ Contemporary creations and debates The Web Bar organizes workshops around works by contemporary creators online and a debate on the theme "Internet, space of knowledge?" In the evening, a cyberopera by videophone and musical demonstrations on the network are on the program. Web Bar, 32, rue de Picardie. March 20 and 21, from 11:30 a.m. to 2 a.m. Info: 01.42.72.66.55. www.webbar.fr Paris IVe Under the Beaubourg teepee On the piazza of the Centre Georges-Pompidou, a large tent. Under the tent, conferences-screenings and consultation sessions with facilitators-initiators. March 20, from 10 a.m. to 6 p.m., and March 21, from 2 p.m. to 9 p.m. Centre Pompidou. Info: 01.44.78.42.42. www.cnac-gp.fr Is it your party? Rhyming and wordplay contest in "net" (or nette) for everyone. The texts will be displayed on the site while Internet users vote for the election of the best poem on the 21st. The winner will benefit from a special web page on the LocoMediaDub site for one year. March 20 and 21. 4, rue Aubry-le-Boucher. Info: 01.44.61.81.01. www.LocoMediaDub.com Paris Ve Journée sur les logiciellibres Inria (National Institute for Research in Computer Science and Automation) is organizing a debate day, sponsored by the Ministry of National Education, on the theme "free software: economic issues". March 20, from 10 a.m. to 6 p.m. Maison de la Mutualité, 24, rue Saint-Victor. Info: 01.39.63.57.29. www.inria.fr What is the Internet for in a university library? The library of the University of Paris-III is organizing guided tours of the premises on the theme "What is the Internet for in the BU?", as well as introductory sessions on the Web in a room equipped with 5 microcomputers. March 20, from 10 a.m. to 5 p.m. BU of Paris-III, 13, rue de Santeuil. Info: 01.45.87.48.33. bucensier.univ-paris3.fr Paris VIe Internet in all its forms Friday, from 10 a.m. to 12 p.m., conference debate: "Internet and associations. What interest for the associative network?" Afternoon: initiation, discoveries, demonstrations (webcam, music, online colloquium, videoconference), debate on "The future evolution of the Net". From 7:30 p.m. to 2 a.m.: Web night (meeting of teams of players). Saturday (for teachers): conference "Internet at school" and discoveries-initiations. Reservations required. March 20 and 21. Saint-Michel activity center, 9, place Saint-Michel. Info: 01.46.34.15.37. perso.club-internet.fr/casm/ The blind at the cybercafé The company Handialog, French leader in the design of IT solutions for the visually impaired, is setting up at the Cybercafé Orbital for a series of demonstrations of techniques allowing the blind to access the network of networks. March 20, from 10 a.m. to 6 p.m. Cybercafé Orbital, 13, rue de Médicis. Info: 01.44.70.32.00. www.handialog.com Paris VIIe Tomorrow the cyber-civil servants Open days for civil servants organized by the General Planning Commission: videoconferences, demonstrations of content and remote procedures. Twenty consultation and demonstration stations. March 20, from 10 a.m. to 7 p.m. General Planning Commission, 18, rue de Martignac. Info: 01.45.56.53.43. www.plan.gouv.fr Workshops at the National Assembly The National Assembly invites the public to discover the Internet from 10 a.m. to 5:30 p.m. in the rooms of the Palais-Bourbon. One hour of workshops for groups of twenty people maximum. March 20 and 21. National Assembly, 33, quai d'Orsay. www.assemblee-nat.fr New writing, new culture Presentation of the sites of the cultural Internet and "Ulysses, seeker of knowledge", cultural and scientific search engine, by Blaise Rosnay, webmaster of the Club des Poètes (see page XII). Dinner debate on the theme "Is the French language soluble in the Internet?" March 20, from 5 p.m. to midnight. Club des Poètes, 30, rue de Bourgogne. Info: 01.47.05.06.03. www.melusine-transgraphe.asso.fr Internet is @ you For three days, France Télécom is offering an exhibition dedicated to the Internet. The visit begins with a navigation commented by a "cyber-animator", "a woman with a head shaped like a screen". Probably frightened, visitors will be able to retreat to an individual exploration (50 self-service computers), and to four "mini-thematic spaces" devoted to discussion groups, education and online games, e-commerce, and ways to connect. From March 20 to 22, from 10 a.m. to 7 p.m. Espace Eiffel-Branly, 29-55, quai Branly. www.francetelecom.fr/vfrance/actualite/actu5.htm Ministerial Cybercafé A cybercafé is open at the Secretariat for Industry. Twenty microcomputers will be made available to visitors, who will be able to freely surf the Internet. Facilitators will be present to guide them. March 20, from 8 a.m. to 8 p.m. State Secretariat for Industry, 20, avenue de Ségur. Info: 01.43.19.36.36. www.industrie.gouv.fr The Internet and employment To learn more about job searching via the Internet, jobs and companies generated by new technologies, demonstrations for job seekers. March 20 and 21. Maison Inter, 105, rue Saint-Dominique. Info: 01.69.85.12.66. www.supelec.fr Paris XIe Digital event An online exhibition, presented jointly with Japan, a country where the computer is used as an artistic medium. The objects exhibited are either creation tools for web pages or digital works of art. Registration until March 21, exhibition from April 1 to 30. 19, rue Trousseau. Info: 01.47.45.17.82. www.mygale.org/02/japofra/ Big cyber party Cyberspace is taking over rue Saint-Sabin, with a special cyber architecture party: presentation of their sites by architects Ammar Eloueini, Adrien Sina, Fiona Meadows, Jacques Rougerie, etc. Online forums and a virtual jury for an awards ceremony for the best architecture sites, with guest star Paul Virilio himself, cyberkawa and a big cyber party with Cybergaïa will complete the event. March 21, from 3 p.m. to 10 p.m. ENSCI workshops, 48, rue Saint-Sabin. Info: 01.42.60.40.96. www.kubos.org Arbres du warf A European project for the integration of young people. Presentation of the famous trees of knowledge and skills, which here we want to "grow" to help with the acquisition of skills. March 20 and 21, from 10:30 a.m. to 6 p.m. 27, rue du Moulin-Joly. Info: 01.43.55.55.50. golem.easynet.fr/warf/ Global Gallery at Moulin-Joly Training for schoolchildren, activities on the Internet via a webcam, demonstrations for adults, artistic performances broadcast on the Internet, free consultations, setting up of a cybergallery for artists from eastern Paris (Bastille, Belleville) and opening. March 20 and 21, from 9 a.m. to midnight. Global Gallery, 32, rue du Moulin-Joly. Info: 01.47.00.23.09. www.globalgallery.easynet.fr Paris XIIe Fête à Bercy Bercy offers one-hour conferences on themes associating the social economy and the Internet (consumer protection on the network), workshops presenting ministerial sites and demonstrations on Bercy's use of new technologies (intranet and "visioguichet"). March 20 and 21, from 10 a.m. to 5 p.m. Ministry of Economy, Finance and Industry, conference center, 1, bd de Bercy. Comics on the Internet Launch of an interactive comic on the Net, the completion of which is planned for the second Fête de l'Internet. All schools can participate and get in touch with other countries. Colleges in the United States and Canada have already given their agreement, and we are awaiting responses from Ivory Coast and South Africa. From March 20, 1998, from 10 a.m. to midnight to February 1, 1999. 60 bis, rue de Picpus. Info: 01.43.47.53.40. member.aol.com/piccyber/accueil.html "Explosive Web" fireworks A discovery of the cyber world that offers fireworks from the associated pyrotechnicians and the cyber@picpus cybercafé. March 20, from 9 p.m. Lac Daumesnil. Info: 01.40.27.84.52. www.pyrotechnie.com Paris XIVe Internet near you Two days of discoveries organized by the association Resolutions, human and electronic networks: debates, questions and answers, practical use of the Net, documentary screenings. March 20 from 6 p.m. to 10 p.m. and March 21 from 10 a.m. to 6 p.m. Resolutely yours, 15, avenue Jean-Moulin. Info: 01.43.29.16.49. Paris XVe Meetings and discussions on contemporary artistic creation For three days, www\_art is a place for meetings and discussions that offers a free guided tour of websites related to contemporary artistic creation. Facilitators help visitors use the computers. Round tables with personalities from the art world (artists, journalists, gallery owners) address the themes of artistic innovation on the Web. March 20, 21 and 22, from 1 p.m. to 9 p.m. 105, rue Mademoiselle. Info: 01.43.11.22.33. www.metafort.com/www\_art/ Virtual patchwork Free access to computers hosted by the associative provider GlobeNet and creation of a virtual patchwork composed of scanned images and texts. March 20 and 21. GlobeNet, 21, bd de Grenelle. Info: 01.45.75.80.90. www.globenet.org Producers-technicians-artists, meet! Professionals in the audiovisual, cinema, TV and entertainment industries, whose goal is to quickly connect producers and temporary workers, are launching their site and are offering to publish their references and contacts online for free for the celebration. From March 20. 14, rue du Docteur-Roux. Info: 01.44.49.61.37. www.systole.com/scene/ Paris XIXe Introduction for young authors and creators Sesam, which collects multimedia copyright, is offering a day of "surfing the Internet" to introduce authors, composers and creators to the network. March 21, from 10 a.m. to 6 p.m. La Villette, 16, place de la Fontaine-aux-Lions. Info: 01.47.15.49.06. www.sesam.org Cité des sciences The Cité des sciences, what could be more normal, offers its share of techno events. And debates on the why and how. From March 20 to 22, from 10 a.m. to 6 p.m. Cité des sciences, 30, avenue Corentin-Cariou. Info: 01.40.05.81.67. www.cite-sciences.fr Belle (Cyber) Ville Events around the Belleville neighborhood site built by neighborhood associations. March 21, from 10 a.m. to 6 p.m. Belleville Social Center, 17, rue Jules-Romains. Info: 01.40.03.08.82. wwwperso.hol.fr/~csbelle Paris XXe The Internet at school: open sites Parents are invited to discover their children's work on the school website. March 21 at 9:30 a.m. Primary school, 291, rue des Pyrénées. Info: 01.46.36.16.82. www.mygale.org/05 /py291/ Web Art ArtMag offers artists from around the world who use the Internet a platform to host their works. March 20 to 22. ArtMag, 114, rue des Pyrénées. Info: 01.43.56.31.22. www.artmag.com Boulogne-Billancourt Social integration and the Internet Discover the means available on the Internet for job searches and professional integration. March 20 and 21. Espace Cyber Jeunes, 26, avenue André-Morizet. Info: 01.55.18.48.79. www.cyberjeunesbb.org Colombes The field mouse at school Event organized by the association La Petite Garenne de Colombes and the vocational high school for printing and graphic arts: website graphic design competition, Internet discovery workshops for children, demonstrations for all. March 20 and 21. Lycée Claude-Garamont, 69, rue de l'Industrie. Info: 01.47.80.06.67. Gcharra@Atelier.fr Elancourt Discover Arabic calligraphy For two days, the association of Moroccan workers in France is offering a discovery of Arabic calligraphy: on the program, visits to websites and participation of calligrapher Hassan Massoudy. March 21 and 22, from 10 a.m. to 6 p.m. Children's house. Info: 01.47.56.21.27. www.savimedia.fr/massoudy/home.htm Evry Initiation Open house operation at the National Institute of Telecommunications. Free access to computer rooms (but controlled), initiations with experienced teachers, exercises... March 20 and 21, from 10 a.m. to 5 p.m. 9, rue Charles-Fourier. Info: 01.60.76.43.17. www.int-evry.fr/fete-internet/ Issy-les-Moulineaux Web and Francophonie Night Virtual treasure hunt: young people aged 14 to 30 participate in teams of two, answering questions about sports, culture and economics on French-language websites. March 20, from 2 p.m. to 2 a.m. Media library, 33, rue du Gouverneur-Général Eboué. Info: 01.40.95.66.09. www.issy.com/fete/ Marly-le-Roi Marlychois Cyberplaces The people of Marly will discover the multiple uses of new technologies in cyberplaces opened for the occasion, with introductions for parents and students, and videoconference at the Jean-Rostand school. March 20, from 5 p.m. to 8 p.m. 3, chemin des Glaises. Info: 01.30.61.60.29. www.mairie-marlyleroi.fr Montreuil-sous-Bois Philosophy-Internet debate The Entrasite cybercafé is organizing a philosophy debate with research on the Net to explore the topics discussed in more depth. Among other themes: "X-Files? Are there real government secrets?" March 21, from 5 p.m. to 8 p.m. 11, avenue de la Résistance. Info: 01.48.57.37.52. www.entrasite.fr Neuilly-sur-Seine Midday-midnight, a meeting on the Net The departmental center for educational documentation opens its doors to allow the public to consult and learn about the subtleties of the Internet. CDDP employees are present to answer all questions about the global network: cost, equipment, sites and educational uses. March 20, from 12 p.m. to midnight. 41, avenue du Roule. Info: 01.47.45.92.00. www.ac-versailles.fr Ozoir-la-Ferrière Multimedia fair "Tout Ozoir sur Internet" offers browsing, dialoguing, creating web pages, learning office automation (Excel, Word, Access, Ciel...), composing music (PC, Atari), doing desktop publishing (XPress, Page Maker), games, and discovering the Ozoir website. March 21, from 10 a.m. to 6 p.m. Lycée Lino-Ventura, avenue Marcel-Pagnol. Info: 01.64.43.35.91. www.mygale.org/03/ozoir/ Pantin Pantin celebrates the Net The Pantin town hall, the Cité des sciences et de l'industrie de la Villette and the association "Réseau A Pantin" introduce people to the Internet: e-mail, Usenet, creation of web pages, encouragement to create citizen links... March 20 and 21, from 11 a.m. to 8 p.m. Le Rouvray neighborhood association, 8, rue Sandicci. Info: 01.48.91.64.49. www.mygale.org/10/antomoro/fete/fete.html Villiers-le-Bel Internet: child's play and opportunity for business "Open house" morning at the ORT (education and training) establishment: young students will show businesses that the Internet is child's play. March 20. ORT, 32, avenue de Choiseul. Contact: 06.81.33.50.20.www.ort.asso.fr

## ###ARTICLE\_START### ID:695

POITOU-CHARENTES Loudun Open days and discoveries Ten networked workstations with the help of a facilitator. Activities on the town hall website, online forum, etc. March 20, from 9 a.m. to midnight and March 21, from 9 a.m. to 6 p.m. Loudun Internet Resource Center, 1, rue Housse-Galants. Info: 05.49.98.95.46. www.loudun.cg86.fr Poitiers Free Software Days The Linux (free software developed cooperatively) user group in Poitiers, Gulp, is giving its demo. March 20, from 10 a.m. to 10 p.m. and March 21, from 10 a.m. to 7 p.m. Le Maillon, 20-22, rue de la Chaîne. Info: 05.49.88.05.55. gphy.campus.univ-poitiers.fr/~jacquet/

## ###ARTICLE\_START### ID:696

No doubt tired of complaining about the "French delay", about its procession of uncreated jobs, of declining competitiveness or of poor information, some presidents of associations working for the development of the Internet decide to launch an annual festival. Two models: the Fête de la Musique and the network itself, for an open and free event, without supervision and, in the minds of some, rather anarchic, cooperative, voluntary and artisanal. Dates are set: March 20 and 21. But here's the thing, companies are the first to respond, with "cyberpromos" or "cybercompetitions". Jumping on the bandwagon, the Ministry of Culture aims to restore balance, by "investing in the cultural dimension". Which is not enough to calm some alternative webmasters who denounce the commercial drift of the Festival and announce their boycott here ("Libération" of February 20). The organizers are temporizing: everyone will have their place, it's a Spanish inn, like the network itself. Like the selections, subjective necessarily, of sites and events presented this week by the Multimedia section. The abundance of planned initiatives is on a par with the ambition: children teaching their parents about the Internet, ministries opening cybercafés, a conference on free software sponsored by the Ministry of National Education... And everywhere in France, demonstrations, computers with free access, etc. (read pages VII to X). With for all the organizers - administrations, schools, associations, companies - the same desire to share their passion for the network, to remove apprehensions and to combat ignorance. During these two days, it will be less a question of bridging the French gap than of democratizing access to the Internet. A much more exciting prospect. One unknown remains, and it is a crucial test for the Internet: will the general public be part of the party? Official website: www.fete-internet.fr

## ###ARTICLE\_START### ID:697

Is free software free? Free software is not necessarily free. The ambiguity comes from the original expression, freesoftware, since in American free means both free and free. According to the definition of the FreeSoftwareFoundation, free software meets three criteria. First, the freedom for everyone to study how the program works, and to adapt it to their own needs. Second, the freedom to copy it and distribute it to friends or colleagues, which is strictly forbidden with classic commercial software. And finally, the freedom to improve the software yourself to share it with the community. In practice, many free software programs are available for free on certain websites. Paid versions are marketed by companies, with full instructions, maintenance and CD-Rom. The RedHat company distributes a version of Linux. What differentiates commercial software from free software? The vast majority of software sold commercially by publishers, such as Microsoft, is distributed in an "executable" version, while free software is provided with its "source code". Source, executable? A short detour via a musical analogy helps to clarify these terms. We can consider the source code of a software as its score, and the executable code as its recorded version. A score can be played on a piano, a flute or by the Berlin Philharmonic Orchestra. But if the same score is pressed onto a disk after a harp concert, the buyer cannot modify anything, and will not be able to play the piece on the Jew's harp or modulate the interpretation. The transition from one version to the other is done through a "compilation", which translates the source code (lines written using programming languages mastered by computer scientists) into executable code (understandable only by the computer). Before being sold commercially, a version of a software in source code is patiently built by a company's programmers. Free software is delivered in this form, while Microsoft or Lotus sell only the "executable" code, the rest being considered an industrial secret and internal kitchen. Who creates free software? All computer scientists of good will who want to participate in this high-tech collectivism. Some associations, such as the FreeSoftwareFoundation (FSF), led by Richard Stallman, work for the development and promotion of free software. The GNU project (whose logo is, of course, a wildebeest) of the FSF is thus at the origin of Linux (whose logo is a penguin). Another initiative of the Stallman foundation: a license adapted to this model, the GPL (General Public License), which stipulates that free programs are the property of their authors and that they must be distributed in the form of source code. With this license, anyone can trade in free software, even with modifications of their own, but they never have the right to "lock" it for their own benefit. The GPL thus guarantees that programs always remain freely available, ensuring the sustainability of the system. Where to find free software? Two interesting sites: Linux Center www.math.jussieu.fr/~fermigie/linux-cen2 FreeSoftwareFoundation www.fsf.org

## ###ARTICLE\_START### ID:698

On March 31, Netscape will unveil the new version of its Internet browser, Communicator 5.0. On this occasion, the Mountain View (Silicon Valley) company will take a spectacular turn: the software will be available for free on the Internet, and in source code. This is no small event: for the first time, a listed company is joining the free software camp. Netscape has a lot to gain from this. First, it is not making a big sacrifice by giving up collecting anything on its browser: Communicator represented only 10% of its revenues, compared to nearly 50% a year ago. Second, by making the evolution of its browser a collective work, it expects to benefit from the innovative capacity of the Internet community. "It is the only way to face the firepower of Microsoft" (whose browser has continued to gain market share, editor's note), explains Linda Lawrence, vice president in charge of international marketing. "Last year, we refocused on professional markets and our website, one of the most profitable on the network (100 million dollars in revenue in 1997). By making our browser an open standard, we are only completing this strategy." This shift has received the support of the greats of free software, Linus Torvalds, Richard Stallman... "We have involved them in our thinking," emphasizes Jim Hamerley, head of the "browser" division. "And they see in our approach the opportunity to build a bridge between the worlds of commercial software and free software." Inspired by the Linux project, a group of Netscape employees is responsible for managing the evolution of Communicator (1). "The license will be inspired by the GPL project of the FreeSoftwareFoundation (see page II), but will allow commercial exploitation, specifies Jim Hamerley. People will be able to integrate our code into their products without being obliged to make theirs public." Originating from university research where it was developed under the name Mosaic, Netscape's flagship software will therefore be returning to its roots. Moral of the story: isolated in a commercial bubble, Internet network standards have little chance of surviving. Returned to the community of aficionados, they can continue to grow. In any case, this is the bet that Netscape is making, which is risking its skin: under the battering rams of Microsoft, the company has indeed seen its market share melt away and has even had to lay off employees. If the operation succeeds, the Internet community will have scored a big point against Microsoft. And other companies may be tempted to follow this path. (1) www.mozilla.org

## ###ARTICLE\_START### ID:699

San Francisco, special correspondent. Last week, Ben Spade had the emotion of his life. The leader of a group of programming enthusiasts living in Silicon Valley, this American presided over the monthly meeting of his troops on March 4 in the suburbs of San Jose (California). As usual, he was expecting only about fifty participants. But that Wednesday, he saw nearly half a thousand of them arrive. All because an obscure Finn named Linus Torvalds was the speaker for the evening. Petrified with stage fright, Ben Spade stammered a few words of introduction before calling his guest to join him. The audience - a curious mix of students, executives and old hippies - then gave a tremendous ovation. Very serene, the young Linus (28 years old) took the microphone to improvise, in almost perfect English, a speech of almost an hour. The atmosphere? Close to fervor. Let's summarize the general feeling: there was Jean-Paul Sartre in Saint-Germain-des-Prés. There is now Linus Torvalds in Silicon Valley, and the face of the world could be changed. Torvalds is the anti-Bill Gates (read also the column by Alain Simeray on page VII). If the awful money-grubber from Microsoft is seen as a devil in the Internet community, the young Finn has recently gained a reputation as an archangel. At the age of 21, while he was a student at the University of Helsinki, Linus began writing a software called Linux (1). Today, seven years later, this program runs the computers - between three and eight million according to the census - of the most demanding computer scientists on the planet (2). Linux is, like Microsoft Windows, what is called an operating system: the "intimate" software of a computer, without which other programs could not function. No more than there could be singing without vocal cords. But the parallel with Windows ends there. Because Linux is not a commercial product. It has been available free of charge since its launch and, what is more, in its raw form: the "source code", which is to software what the score is to music (much better than a disk, which cannot be changed, even if you are an experienced musician). This total transparency has made the development of Linux a collective work, in which several thousand people have participated - via the Internet. For the sole love of art and a job well done. Torvalds himself wrote only 50,000 lines of code out of a total of about 1 million. The rule is simple: anyone with a bit of knowledge can improve or add to Linux, as long as they contribute the fruits of their labor to the common pot. Throughout the process, an informal group of experts is responsible for co-opting the additions deemed worthy of being integrated into the whole. A delicate undertaking that consists of building a cathedral without an architect, while avoiding splits among the workers (that is to say, the appearance of divergent versions of the software). But the Linux project has shown that it is possible. Better still: this alliance of "open" programming and the Internet has given rise to a software development model, a thousand miles from that of Microsoft, and which turns out to be more efficient. In the opinion of experts, in fact, Windows is a rather bad program ("full of tons of bugs", notes Linus), while Linux is unanimously considered elegant and well designed. Has an alternative to the market economy been found, at least in the software sector? Some people no longer hesitate to claim so (3), which gives the affair a rather unexpected political turn. A funny detail: on the morning of this famous meeting in San Jose, the San Francisco Chronicle devoted a double page to computers. On the left, the story of Bill Gates' spectacular hearing the day before before a Senate committee that was trying to find out whether or not Microsoft was a monopoly. On the right, an editorial that, in a tongue-in-cheek manner, said something like this: "Forget Bill Gates, the real threat is Linus Torvalds." This was followed by a short presentation by the Finn and this conclusion: "Go tell these software socialists to take their radical concepts of cooperative development and "free code" to Europe. Americans demand to be free to pay for the programs that dominate the market, and to fatten the bosses." Such as. The next morning, we knock on the door of a modest house in Sunnyvale, in the heart of Silicon Valley. It is 10 o'clock. Linus Torvalds opens the door, his face covered in shaving soap. "I'm not a morning person," he has to admit. Armani glasses and a growing plumpness, the young man is extremely relaxed. He came to settle in the region as soon as he finished his Finnish studies, just a year ago, with his wife, his baby and his two cats. "It wasn't the money that attracted me here, but the state of mind, conducive to innovation. And then the climate." He was hired by a very young start-up (4) in the valley, Transmeta, which is looking to design a new generation of chips for multimedia PCs. "I turned down much better-paid jobs, I didn't want to work for a company making money from Linux." Linus Torvalds did not, however, go so far as to refuse the stock options offered to him by his employer. Transmeta, a Linux user, obviously appreciates its young recruit's expertise in the field and, magnanimously, lets him free to devote part of his working hours to the pursuit of his project. Anecdote: Paul Allen, co-founder of Microsoft with Bill Gates, invested money in Transmeta. "He owns only a very small part of the capital," Torvalds specifies. And Paul Allen has long since left Microsoft. The San Jose meeting was Linus's first public appearance in Silicon Valley. "I was surprised by the turnout, although I have spoken in other places to larger gatherings." Does he consider himself a prophet of free software? "No, not at all. I do it because I enjoy it. And I don't claim that "free software" is a universal model for software development. For projects that are not very exciting, such as interface design, money can still be the best way to motivate programmers." Would Windows benefit from becoming free software? "Yes, of course. But I doubt that the American authorities will force Microsoft to take this step. It's a shame: the important thing for the user is not to have new versions all the time, but a version that works. And Microsoft has no interest in fixing Windows bugs. Its priority is to sell more and more new products." Whether he likes it or not, Torvalds is tending to become the figurehead of the anti-Microsoft fight in Silicon Valley. And even a sort of last resort. Netscape (Internet browser) has been crushed, Apple has had to make a pact with the devil, and NCs (network computers), simplified PCs that can do without Windows, are struggling to see the light of day. Free software, the equivalent of a scorched earth policy in terms of the market, now appears to be the last means of resisting the "Gatesian" invasion. Referring explicitly to the Linux experience, Netscape decided at the end of January to distribute the source code of the next version of its browser for free (read below). Furthermore, rumor has it that Apple could make Rhapsody, its new operating system, free software. The goal: to drain the collective intelligence of the Internet and demonstrate once again that the network's programming artists do better than the mercenaries of Redmond (Microsoft's headquarters in Washington State). Silicon Valley, a country where you can amass fortunes by writing a few lines of code, is certainly not converting to "software socialism". But there is resistance in the air. We have seen worse maquis. (1) Contraction of Linus and Unix, an operating system to which Linux is related. (2) The special effects of the film Titanic were produced on computers running Linux. (3) Free software available to all, Bernard Lang, Le Monde diplomatique, January 1998. (4) High-tech company financed by venture capital.

## ###ARTICLE\_START### ID:700

The Internet has developed thanks to scientific research and the sharing of skills. Hypothesis: if, today, we were to eliminate free programs, we would eradicate at the same time the software offspring of that era. Half of the websites would then fall apart, since Apache, the essential software for web servers, is a reference. There would also be no more e-mails because Sendmail, a free software, is the basis for most classic e-mail programs. And Internet users would suffer from migraines: the software that translates site addresses is also free software, so they would have to type "160.92.127.245" instead of www.liberation.com!.

## ###ARTICLE\_START### ID:701

In a discussion group, some Internet users were debating the predominance of Microsoft in teaching computer science in schools (1). Many were worried about it. This is how the project of a "free Internet school" was born, supported today by a collective of 75 members. Training centers would be created all over France, for teachers, civil servants, the unemployed and associations. A one-day general public course would be set up. The teaching would be based on the use of free software, distributed free of charge on the network, such as the Linux operating system or the Netscape Navigator navigation program. "Sharing knowledge and costs, free information, cooperation and volunteering are the foundations of the Internet and our project", we read on the presentation site (2). Initial observation: if schools and universities do indeed equip themselves with a teaching structure for the use of new technologies, a very large part of the population is left out. To reach the greatest number, these courses would be free. The trainers would be volunteers as much as possible. The launch of a subscription to raise funds would make it possible to acquire equipment and rent rooms. As for the operation, it would be decentralized: associations all over France would propose the opening of schools, like the one that already exists in Paris, at the Maison des ensembles. In this associative squat, free computer courses are given every Wednesday (Internet), Thursday (office automation) and Friday evening (programming) (3). Each project would benefit from the coordination of a small Parisian structure. The State could find its account there, which is wondering how to train the thousands of teachers and civil servants who are about to be connected to the Net. The initiator of this idea of a free Internet school is Laurent Chemla, a computer scientist who is working to have it recognized and supported by the State. "Before the Internet, the article in the Constitution guaranteeing freedom of expression was just words," he believes. "It could only apply to certain socio-professional categories, such as journalists. Today, freedom of expression can be the same for everyone. We still need to train the population in the use of the network. If our project were supported by the government, it would be the recognition of the Internet as a tool allowing the public expression of all citizens." First difficulty, according to him: making the State understand that it will not cost money, or very little. "This world based on volunteering seems strange to them. Just like the superiority of certain free software over commercial software." However, for the collective, "free software is better, it is thanks to it that the Internet works, that it exists". Their use is a founding bias of the project: "If we train unemployed people voluntarily, it is not to then sell commercial software." (1) fr.soc.internet (2) Free Internet School Project: www.ecole.eu.org (3) www.rezo.net/uo/

## ###ARTICLE\_START### ID:702

In some video games, such as "Tomb Raider", when you arrive at a door, you rush to go through it, relieved to have finally found it. Error! A trap awaits behind it, a stone that flattens you for example. The "information society" that the government action program presented last Friday by Lionel Jospin proposes to enter, is like this door: you absolutely have to open it to move forward, but the ambush is not far away (see also page IV). The first of them: by legitimately wanting to build a "more united, more open and more democratic society", we can end up massively supporting the American computer industry... Like the gold rush that made the fortune of merchants of shovels and prospecting equipment, the Internet is causing sales of computer equipment to explode in the United States. It fuels an industry that occupies the world's top ranks in the fields of processors, workstations, microcomputers, operating systems, software, modems and routers, all necessary for Internet connections. The Jospin plan plans to equip schools, administrations, town halls and libraries. Where to turn? Is there no other way out than to suffer the technological overbidding of American industry? To be forced to use equipment that is obsolete after a few months of use or increasingly cumbersome software (nicely, we call it obsolete software)? The Jospin plan reminds us that the technology sector represents a third of the jobs created in the last six years in the United States. In these times of unemployment, the promise is worth Sesame. But entering the information society without discernment risks creating jobs in the United States and not in France. What to do? First idea: moderate the race for power. By recycling 386 and 486 PCs that are perfectly suitable for getting started with the Internet with Windows 3.1, Eudora and Netscape 1, old versions of word processors and spreadsheets. You can do the same with Macintoshes, which have aged less quickly. Except that the old versions of the software are no longer distributed or under warranty. This would be launching the Emmaüs of computing, necessary for the information poor but not sufficient for massive quality equipment. There is another solution that does not sacrifice anything in terms of performance, quite the contrary. Develop the free software industry, already lively but well hidden behind a lack of media coverage. Complete software that can be installed on as many machines as you want. The best known of these is Linux, a complete Unix operating system, free if you download it, or offered for around 300 F on CD-Rom at Fnac for example. Software comparable to Windows NT, perhaps even better: in December, engineers Louis Léon and Patrick Rougeau tested Linux against Windows NT 4 on a Pentium Pro 200 PC for LMB magazine (1). They concluded that Linux performed better overall. For public investment, this is an option to consider, in line with the Internet model that has established itself as an exchange system open to all on a global level. A transnational and cooperative model. This product should also interest companies that want to have high-performance consultation stations or servers, to launch into e-commerce at a lower cost... But for the private choice, it is up to the entrepreneur to decide, provided that he knows what is on offer. It must be admitted that for the moment, the information deficit is abysmal. So, what are the chances of such a project? As low as those that the Internet had of appearing in a government action plan, less than three years ago. That is to say. Alain Simeray (simeray@dsi.cnrs.fr) is editor-in-chief of the electronic weekly LMB Actu (www.lmb.cnrs.fr). (1) www.lmb.cnrs.fr/Article/Art1997/WinLin.html Additional information on Linux: opera.inrialpes.fr/linux/guilde/

## ###ARTICLE\_START### ID:703

Autrans special envoy Just before the announcement of the Jospin plan for the development of the information society (today, read in the Politics pages), the Internet Society (Isoc, an association dedicated to the development of the network) debated the future of the network at the end of last week, in Autrans (Isère). At the center of the second meetings of the French branch of the association: the democratization of the network. Review of the main points discussed. °The Internet for all. Senator Franck Sérusclat (PS) echoed a widely shared concern: "To become a citizen on the Net, you still have to be connected, and above all have access to the training necessary for navigation." The parliamentarian denounced the risk of information control by a caste of privileged people. "It is up to schools, more than ever, to initiate change." °Free software. They still constitute the majority of programs used on the network. This is the model that made the Internet successful. "Imagine that we delete them, we would then lose half of the websites, which are under Apache, a large part of the interactivity which is done in Perl, the mailing lists, which are mainly under Majordomo, electronic messaging by losing Send Mail, the news by losing Usenet", recalled Bernard Lang, research director at Inria (National Institute for Research in Computer Science and Automation). The Isoc intends to encourage the diversity of programs, by monitoring the choices of public authorities to equip schools. Suspected of wanting to take control of the network, Microsoft and its flagship product Windows were given bird names: "Microchiotte", "Windaube"... °No to idiots in international bodies. "France must stop sending selected people there because it is difficult to put them elsewhere," said Bruno Oudet, president of the French Isoc, who gave this example: "At the meeting organized in Paris by the OECD (Organization for Economic Cooperation and Development, editor's note) on electronic commerce last July, only three people did not put their email address on their attendance sheet, including two French people." °The working method. The Isoc prides itself on not simply organizing meetings on the French network society, but on putting it into practice: "We didn't print anything," explains Bruno Oudet. "All the information was available by email or on the Web." The debates started in Autrans will continue online. In terms of electronic commerce, the Isoc relies on the forum opened on the website of the Ministry of the Economy following the submission of Francis Lorentz's report. The conclusions of the other projects (modernization of the State, contentious content, abuses in Internet use, etc.) are on the Isoc website. www.isoc.asso.fr/AUTRANS98/

## ###ARTICLE\_START### ID:704

In Saint-Ouen-l'Aumône (Val-d'Oise) and Choisy-le-Roi (Val-de-Marne), two suburban schools are laboriously trying to get to grips with the computer tool. The first is one of the eleven establishments selected for the "Graine de multimédia" program initiated by Microsoft. The American giant claims to offer a panel of volunteers "the opportunity to test new information and communication techniques in optimal conditions". Last spring, the school was therefore equipped with high-end Hewlett-Packard equipment completely free of charge. In comparison, the equipment at the Choisy-le-Roi school is poor. The heterogeneous stock is made up of machines recovered from companies or donated by the municipality. Thanks to the parents of the pupils, it was possible to add the extensions needed to tinker with multimedia workstations. As for software, the teachers make do with freeware or obsolete products. Does the use of multimedia and the Internet in primary schools really have an educational interest? In any case, the experiences of these two schools demonstrate that good equipment does not replace motivation and skills. When he took up his duties as director at Choisy in 1988, Bruno Cuvillier was surrounded by colleagues who were on average 50 years old. The calamitous machines of the 1986 "Computers for All" plan were slumbering under the dust, in general indifference. A self-taught programming enthusiast, the new director began by computerizing the library. Management of the collection was entrusted to CM2 pupils who thus became familiar with their first software. In ten years, the educational team had been completely renewed. Among the new teachers, several asked to come and take part in the experiment. They were under 30 and quite naturally used computers to prepare the class. With the means at hand, they came up with simple activities to familiarize the children with word processing. These were called "reading challenges". One group makes riddles, another has to solve them, after having read the works on the program. Using free multimedia creation software, the students learned how to use hyperlinks and made a presentation of their school, its history and its neighborhood. "They had," explains Bruno Cuvillier, "the feeling of participating in a discovery." On the eve of the summer vacation, the children asked that the workshop be continued during the summer. "There are no real computer enthusiasts among us," admits Patrick Clerc, a member of the management of the Saint-Ouen-l'Aumône school. In this experimental establishment where it is no longer a question of classes but of "life groups", curiously no one has ever thought of mixing educational innovation and new technologies. The superb Hewlett-Packard machines fell on them "by chance", and the teachers themselves admit that they do not have "enough balls" to evaluate their "cognitive contribution". To install the computers, part of the library had to be moved. Overwhelmed by the mass of CDs at her disposal, Dominique, who is in charge of running the computer activity, admits that she often "gets confused". That day, the teacher asked twelve children to prepare their contribution to a greeting card competition. They had Microsoft's My Writing Workshop software at their disposal. The children found it amazing. With a mouse in hand, they explored the shimmering interfaces for a good ten minutes and made images of frogs or dinosaurs appear on the screen. We are still at the level of electronic decalcomania. Like her colleagues, Dominique had, thanks to Microsoft, two days of training. One teacher admitted that he had already forgotten three-quarters of it: what we lack, he said, is the practice that allows us to settle into these tools.

## ###ARTICLE\_START### ID:705

THE MEDIA COVERAGE OF THE INTERNET I would like to respond to the media hype that has surrounded the Internet for several months. For my part, I believe that the general public should have as much information as possible on the possibilities of the Net, but having this information is not enough. Indeed, the important thing in the presentation of a Web server or an FTP site is the last line of the article, namely its URL. Who says address, says access to this address. And that is where the problem lies, because today the people who can access the Internet are privileged (like us) and will remain so for quite some time. So making the public believe that having so much information at their disposal is child's play is demagogy. Let's not forget that you still need a minimum of computer literacy to be able to use a computer (...) [and] that the majority of the information available is in English. Democracy on the Net is undeniably present due to the social strata navigating there, but democracy of access does not exist. So when will there be real access to culture for all? Jérôme Feuillade jfeu@amoebia.gna.org Of course, you need a microcomputer and a modem, an investment of around 10,000 F. Configuring the modem and accessing the Internet is not yet within everyone's reach. But most connection providers offer free telephone assistance. Then, using the network, in particular the World Wide Web, its most popular part, does not require any special computer knowledge. It is even much simpler than a word processor or a spreadsheet. You just need to know how to move your mouse. For the Internet to become a mainstream medium in France, two obstacles remain to be overcome: adapting its capacity to the number of users, which is growing extraordinarily quickly, and increasing the wealth of content in French. For our part, we are trying to contribute to this with our Web. Laurent Mauriac mauriac@libe.fr MICROSOFT NETWORK The announced arrival of Microsoft Network and Windows 95 is perhaps one of the events that will contribute most to the changes in our commercial society for the year 2000. Who tomorrow will be able to make international transactions without going through Bill Gates' service? The 70 French companies that signed the partnership agreement [Libération, June 16, 1995] show that many business leaders already think that their credibility and competitive advantage come from this new type of media (...). Those who had their eye on the Internet but could not launch into an adventure on an uncontrolled network can now rush headlong. Microsoft Network is the essential network of tomorrow (...). Marc Ringhausen ringo@colombie.ai.univ-paris8.fr Home page: http://www.ai. univ-paris8.fr/~ringo For businesses, the elements of the debate around Microsoft Network are as follows: will it offer a technically more reliable connection than the Internet? To what extent does a content provider - whether catalog sales or publishing - have an interest in tying itself to a single company like Microsoft when the Internet offers a decentralized system whose transactional system and security are constantly improving? The two systems will enter into fierce competition. The Internet has the advantage of having existed for a long time and offering increasing reliability. And most of those who are studying a presence on Microsoft Nterwork also work actively on the Internet... Frédéric Filloux filloux@libe.fr PIRATES AND HACKERS Reading Libé 14,000 km from Paris on a screen is really nice. The concept of an Internet newspaper is tending to develop and I appreciate it! So I encourage you to continue on this path. I nevertheless have a few small remarks to express concerning the article on "Clandestine networks by CP Rewop: In search of pirate sites." CP Rewop seems to cheerfully confuse hackers and pirates, which is not very pleasant. The concept of hacker could be translated into French as "bidouilleur", but certainly not as pirate (Cracker). The hacker does not generally get lost with commercial software. His universe is more that of Unix and free software or other sourceware of the FreeSoftware Foundation, the GNU project, etc. His goal is more to produce and improve existing software and in free circulation, an activity that is completely legal and even strongly recommended. A hacker is productive, inventive and non-pirate, parasite! Yann Langlais langlais@corte-madera.geoquest.slb.com

## ###ARTICLE\_START### ID:706

Before moving the blue cube, you have to remove the red cube,” explains Grégoire Pointeau, a doctoral student in the research group led by Peter Dominey at the Stem Cell and Brain Institute in Lyon (Inserm), to the iCub robot. iCub repeats the instruction, moves his hand towards the red cube, closes his fingers around it, then moves it to the left. He then grabs the blue cube to put it back in place of the red one. “iCub has learned to decipher the meaning of a sentence based on the order in which the words are placed, and his language skills allow him to interact with humans,” explains Peter Dominey. iCub, from the English word cub, which designates the young of animals, is a baby robot. Along with the Nao robot and the Japanese HRP-4 robot, he belongs to the very latest generation of humanoid robots. Their appearance and gestures are confusing, and when we meet them we spontaneously say hello to them. In France, the Aldebaran company intends to take advantage of these characteristics to introduce Nao, which it markets, into our daily lives. iCub is a laboratory robot. It has the weight and size of a 3 and a half year old child and was designed to mimic the learning process. With its hands equipped with five finely articulated fingers, it can grasp an object with precision or catch it when it is thrown to it. Its eyelids open and close according to its interactions with humans and we are quickly tempted to interpret the movements of its head as an expression of doubt or hesitation. "We created this robot to study how the brain works during learning, whether it is language or complex cognitive processes such as following the trajectory of a ball and catching it," explains Giorgio Metta, from the Italian Institute of Technology (IIT), where the project was launched. To do this, we have developed a robot capable of learning by interacting with people." "One of iCub's strengths is that it has sophisticated hands and feet, as well as a head with important expression tools for human-machine interaction," adds Pierre-Yves Oudeyer, from the National Institute for Research in Computer Science and Automation (Inria), who uses the robot to study artificial curiosity and who has just written Aux sources de la parole. Auto-organisation et évolution (Odile Jacob, 300 p., 24.90 euros). Funded to the tune of 8.5 million euros over five years by the European Union between 2004 and 2010, the creation of iCub is the result of a collaboration between eleven European laboratories within the RobotCub consortium, which represents disciplines as varied as developmental psychology, neurophysiology and computer science. At the end of its development, iCub acquired its arms, hands, fingers, as well as a computer brain allowing it to process information and act based on its previous experiences. It could also grasp an object, see and recognize a voice. It was then made available to six European laboratories selected following a call for tenders, in order to continue this development in different fields. This is how it arrived, in 2009, at Peter Dominey's laboratory, with the project of learning to use language as a tool for cooperation. "When it arrived, iCub was able to assemble an Ikea table by carrying out the instructions given to it. The following times, it was able to anticipate the tasks to be carried out for these assemblies because it had memorized them. Since then, it has learned to understand the meaning of names and grammatical words, but also to decipher the order of these words in a sentence," says Peter Dominey. During this learning process, iCub also learned to locate itself in space by recognizing its right and left. "It's because we showed it several situations in which the object is placed on the left that it ended up integrating where the left is," explains Maxime Petit, another doctoral student in the laboratory. In total, 25 research teams are collaborating in Europe on the development of the robot, which can be purchased for 250,000 euros from the IIT, which is assembling it. The projects include language learning, artificial curiosity and interaction through touch. At the laboratory led by roboticist Aude Billard at the Ecole Polytechnique de Genève, the robot's arms have been covered with artificial skin equipped with sensors that give it sensitivity to touch. The robot learns not to let an object slip from its hand, by using this sensory modality. Several projects also concern language. At the University of Plymouth in the United Kingdom, iCub learned the meaning of certain words, as part of the European Italk project. The Poeticon++ project continues this learning by presenting it with words in various contexts. "The aim is to teach the robot the meaning of the words stir and spoon. The robot must then be able to understand the question 'can you stir the coffee with the knife?'", explains Angelo Cangelosi, from the University of Plymouth, coordinator of the project. While each research team works independently, the iCub project plans to integrate the work in order to develop the robot. Each time new software is developed, the researchers make it accessible, following the open source principle, on the YARP robotics platform. The iCub robot in Lyon can thus be asked to think about the movements it has just made using software taken from YARP and developed at the Plymouth laboratory. On the screen of the computer that controls it, we see the representation of these movements appear. "The researchers involved in the iCub project form a community around this platform that allows them to exchange their knowledge and their work. This makes iCub a fairly unique project," comments Giorgio Metta. Launched in the 2000s with the URBI robotics platform, created by computer scientist Jean-Christophe Baillie, this mode of collaboration marks a turning point in robot design. "A robot is as complicated as an airplane, and its design calls upon a wide variety of trades and skills ranging from voice recognition to engine control," explains Jean-Christophe Baillie, who has become research director at Aldebaran. Having a community of people who contribute is an essential asset today." "These integrative platforms make research possible that was not possible ten years ago. "They act as a catalyst between researchers from various disciplines," adds Pierre-Yves Oudeyer, whose team has just launched a new robotics platform for the development of another robot, Poppy, which is better suited than iCub for learning to walk. "Before, there were a multitude of robots and operating systems and it was more difficult to exchange software. With these platforms, we have standard systems. This helps speed up progress," comments Tony Belpaeme, a roboticist at the University of Plymouth (United Kingdom). This standardization also concerns non-humanoid robots, such as these small modules on wheels regularly enrolled in football competitions designed to test various perception and cooperation abilities - and those of their programmers. "These platforms also contribute to the democratization of robotics. "They make the making of a robot accessible to people who are not robotics specialists," notes Frédéric Fol Leymarie, of Goldsmiths College in London. Some of the software that controls the movements of the arm of Paul, an artist robot that was developed in his laboratory, was taken from the YARP platform, while the arm itself was ordered from a Korean company. "By integrating software in this way and buying parts of the robot," he says, "you can make your own at low prices, in the order of 100 to 200 euros." That's a fraction of the cost of iCub. While the latter is a research robot, Nao is designed to become a commercial product. "Aldebaran's bias is to make a robot that is more of a companion than a servant," says Rodolphe Gelin, research director at Aldebaran after spending the first part of his career at the Atomic Energy Commission on service robots. "Its shape, size (58 cm) and expressions make it natural to interact with people. When they walk past Nao, their first reaction is to wave and say hello." Since Aldebaran was created in 2005, around 3,500 Nao models have been sold worldwide, mainly to researchers and teachers. Priced at €12,000, it comes equipped with a set of programs to download. It has been chosen to be able to speak, dance, listen or even walk. "It is an open architecture, which gives people the freedom to program whatever they want into the robot or to use our programs. This differs from open source in that some of the robot's software, such as the one that controls walking, is protected by patents. But, if you are an expert in walking and our program does not suit you, you can make another one to replace it," continues Rodolphe Gelin. By giving the possibility to modify its programs, Aldebaran is counting on the community created around Nao to improve them. The company is thus collaborating with European and American research laboratories to develop programs that will allow it, in the long term, to conquer market niches. The ALIZ-E project to assist diabetic and autistic children is part of this logic. "It is by going towards populations that have a simple need that we will first meet an initial market. Afterwards, we will move towards more mainstream markets," explains Rodolphe Gelin. Although they risk changing our relationship with animated machines, today's humanoid robots are still far from the robots that science fiction has fueled our imagination. “There is a gap between the reality of robots and the way they are perceived,” comments Denis Vidal, an anthropologist at the Research and Development Institute. “Science fiction has anchored the idea in the collective imagination that something incredible would happen when robots became autonomous. This is a widespread representation at all levels of society, including among roboticists themselves,” he continues. “We must not imagine a technology in our ivory tower thinking that it will solve everything. We must first go to people to understand their needs,” emphasizes Pierre-Yves Oudeyer. “There are still many scientific, technological, societal and ethical obstacles before considering that robots could really interact with humans in everyday life. But we can envisage specific applications such as helping the elderly with mobility using motorized carts capable of adapting to their walking pace,” he concludes.

## ###ARTICLE\_START### ID:707

Alongside Europe, Japan, the United States and South Korea are hosting humanoid robot development programs. In Japan, most car manufacturers and universities have developed their own. Among the most sophisticated are Honda's Asimo robot and the HRP-4 robot, developed by the National Institute of Advanced Industrial Science and Technology (AIST) as part of the "Humanoid Robotic Project", funded by the Japanese Ministry of Economy, Trade and Industry (METI). It is marketed by the Kawada company and is used to study locomotion and human-machine interactions. A version of this robot, HRP-2, is available in France, at the Laboratoire d'analyse et d'architecture des systèmes (LAAS) in Toulouse. In Japan, researcher Hiroshi Ishiguro (Osaka University) is developing realistic-looking humanoid robots whose faces are capable of mimicking human expressions such as smiling. In South Korea, the Korea Institute of Science and Technology (KIST) has developed a humanoid robot called Engkey. Since 2010, it has been used in elementary school classrooms as an assistant, at the initiative of the South Korean government. In the United States, the Willow Garage company markets a robot called PR-2, associated with the open source robotics platform ROS and sold as a research and innovation robot. The Meka Robotics company also markets, for researchers, robots whose configuration can be chosen by drawing from a choice of arms, heads and legs. The robotics platform is also available in open source, and the robots thus configured have characteristics comparable to those of iCub.

## ###ARTICLE\_START### ID:708

The collaborative work of laboratories and the use of standardized platforms have made it possible to develop the cognitive and behavioral faculties of robots. But this form of "open source" is confronted with the more marked out world of intellectual property protection.

## ###ARTICLE\_START### ID:709

This time, it's good. It's done. I'm using Linux. Yes, you read that right: Linux. I know, it always has its little effect. Especially since here, I've completely disconnected from Windows. Deleted from the hard drive, the old operating system! Scrapped the office suite from the same publisher! Erased, a whole collection of heavy and expensive software that were almost no longer used anyway. Finished. I'm using Linux. The idea had been running around for years. Not just the idea: a hundred times we hoped to give a second youth to sluggish PCs, a facelift promised by all our friends who were fans of free software. Under Linux Except that: these attempts had failed until then. Always something that didn't work, printer or keyboard. Always "packages" to install, disks to "mount", command lines to type in console mode, improbable "drivers" to download from shady sites, forums to consult in forgotten languages... No guarantee. And then, a few days ago, while the computer was hiccuping, the desire to try again. Because, when you think about it, most of our digital activity takes place online. Facebook, Twitter, Lemonde.fr, Google, YouTube, Flickr do not need Windows... By ricochet, the Internet frees us from the operating system. Direction Ubuntu (Ubuntu.com), one of the versions (distribution in Linux language) rather intended for the general public. Download, briefly read advice on the French community site (Ubuntu-fr.org), installation... Easy as pie. I am on Linux. The world of free and open source software is mine! And without viruses! Small inventory to check that everything works and that nothing is missing. We had made sure in advance that the valuable writing assistance software Antidote (Druide.com/antidote.html) existed for Ubuntu. We discovered, after the fact, that Skype (Skype.com/fr/) and others were available in Linux versions. Another thing: in various African languages, Ubuntu means "humanity", "generosity" or "free". In this video (http://goo.gl/pTebQk), Nelson Mandela says that, behind the word, there is a conceptual expression, a philosophy. What the 2004 Nobel Peace Prize winner, Desmond Tutu, sums up thus: "I am what I am because of what we all are." I am using Linux.

## ###ARTICLE\_START### ID:710

Terry Tao has just announced it on his blog, very popular among mathematicians: it is time to write and publish the eighth polymath! It is about improving a recent result concerning the twin prime conjecture ("Science & Medicine" of June 26). The idea of polymath projects was launched four years ago by Tim Gowers in another blog: to encourage "massive collaboration" of researchers in mathematics, leading (if possible) to the "collective" resolution of difficult problems. The Epinal image of the solitary mathematician, whose only tools are pencil and paper, must be redrawn thanks to the Internet. Traditionally, research articles in mathematics were signed by a single author. During the 20th century, we saw the publication of more and more articles with two (or sometimes three) authors. Today, barely a third of articles remain with only one author. The principle of "polymath" is very simple: a website publishes research problems, and a public discussion begins, open to all who wish to participate. When things go well and the problem is solved, the solution is written and published... under the pseudonym "DHJ Polymath". However, this is not an anonymous work since the introduction clearly mentions the Internet address where one can find the list of contributors and, above all, the entire discussion. DHJ Polymath has not yet published much, but he is credited with a remarkable contribution in 2012 in the journal Annals of Mathematics , perhaps the most prestigious in the world. This collaborative writing has existed for a long time. We can think of Nicolas Bourbaki, this "polycephalic mathematician" who has been writing the Elements of Mathematics since 1935, a treatise in many volumes "which takes mathematics from its beginnings". This is again a pseudonym associated with a group that is constantly renewing itself through co-optation, but there are two important differences. On the one hand, even if this treatise had a capital importance on 20th century mathematics, it is not a research work, but rather a structuring of the existing mathematical landscape. On the other hand, the constitution of the group is secret, in some way the opposite of the "open source" spirit of Polymath. About forty mathematicians have just published a collective work (600 pages) whose nickname is "HoTT book", and whose full title is Homotopy Type Theory: Univalent Foundations of Mathematics. It is the result of a semester of research at the Institute for Advanced Study in Princeton. The first page of the work soberly contains the list of collaborators, arranged in alphabetical order, as is proper. The electronic version of the book is free, under a Creative Commons license, and everyone is invited to participate in this adventure to go further. This book proposes, nothing more and nothing less, to rethink the foundations of mathematics. Set theory, the symbol of so-called modern mathematics of the 1970s, is dethroned and replaced by other concepts that allow for astonishing connections with computer science, for example. All this is exciting.

## ###ARTICLE\_START### ID:711

The "eco-geek" is a UFO, a priori an oxymoron in itself. Besides, does it really exist? Wednesday, August 21, on the eve of the Europe Ecologie-les Verts summer university, a hundred or so ecologists who are more into IT met up at an "eco-camp" - that is, a day of conferences and workshops on digital technology, obviously streamed online. We expected to find big guys with dreadlocks and girls in sarouel pants, tweeting every five minutes using the official hashtag #jde. But in fact, in terms of macrobio-oriented geeks, we mostly saw forty-somethings in shorts crammed into a lecture hall at the Marseille Saint-Charles university, decked out with green and yellow signs in the garish colors of EE-LV. "Know-how." Smartphones are there, but they are connected to general information sites. The ecogeek is more serious than it seems. The founder of this group is Fred Neau, 38, with a rebellious lock of hair and a rocker look. In 2009, he brought together volunteer activists to share party news on social networks. At the time, to be part of the crew, you just needed a Facebook account. Today, the list of members includes 250 people. "Using digital technology is part of the habits of all activists, we send each other hundreds of discussion lists, it's an example of participatory democracy," he explains. The themes addressed during this day are however broader: open source, Fab Labs (EcoFuturdu July 1), Prism, Hadopi and Twitter are on the program. "It's about demonstrating that digital technology - access to knowledge, the relationship with technology - has been thought about for a long time by environmentalists. "Proposing a new mode of consumption, production, circulation of information and know-how, that also applies in this field," assures Fred Neau. "We were one of the first parties to take an interest in free software. In 2004-2005, Alain Lipietz fought against the unlimited patentability of free software debated before the European Parliament," recalls Adrien Saumier, co-founder of the eco-geeks. Moreover, to communicate, the activists of Europe Ecologie-les Verts (EE-LV) use customized free software, such as the Ecolosites all modeled on the same model, the (Ecolo)pads to share documents and the Mooc to broadcast conferences live. But be careful not to confuse the eco-geeks with the Young Ecologists movement. "The first are an association of real computer and tinkering enthusiasts, the others a group of activists under 30, more independent of the party," explains Damien Hensens, 25, head of communications for the Young Ecolos. On the podium, experts, often EE-LV sympathizers, take turns. Benjamin Bayart, former president of the French Data Network (FDN), recalls the interest of his association which brings together 21 independent access providers, and gives access to the Web to residents of areas poorly covered by large groups. In a videoconference, journalist Anne-Sophie Novel, from the Ecolo-Info collective, emphasizes the development of collaborative economy platforms (Airbnb, Ouishare members, etc.) which prioritize access to goods rather than ownership. She continues with the results of crowdfunding: with 2.7 billion euros of funds raised in 2012, this financing by the connected people is establishing itself as an economic force. Between two conferences, the eco-geeks attempt a media happening. Their faces hidden behind photos of Edward Snowden, the fugitive computer scientist who revealed the NSA's mass surveillance, the hundred or so activists brandish fluorescent signs: "Snowden come home". In order to demand political asylum in France for this modern-day hero. Above their heads, a small Phantom drone films the scene. Later, the economist Yann Moulier-Boutang, author of Cognitive Capitalism: The New Great Transformation, and a member of Europe Ecologie-les Verts, explains that "in terms of protecting digital freedoms, there is so much to do that a boulevard has opened up for the Greens". He praises the collaborative work carried out thanks to open source. "True wealth is not only the final product but is calculated by taking into account the overall system and positive externalities. "We must campaign for the conditions of exploitation of this biodiversity as well as for sustainable development," he specifies. A force for proposals, he calls for a "digital goods agency" that would consider a new intellectual property law no longer based on the opposition between original and copy. A respected figure among eco-geeks, Michel Briand, elected municipal official of Brest in charge of the Internet and multimedia expression, comes to distil new ideas and good practices. This sixty-year-old with a fast flow has been working for three terms. In Brest, he had 105 public Internet access points installed in his city, opened a participatory information site with a system that supports the populations furthest removed from writing, then set up the Wiki-Brest encyclopedia with 1,000 contributors. "The digital economy operates in a contributory logic that encourages everyone to participate. This corresponds to the values of ecology." The only elected member of the National Digital Council (CNN), he is currently participating in the preparation of a report on "e-inclusion". "There is no digital divide in itself, but a social divide that can be increased by the Web. Making online tax returns mandatory, for example, is not egalitarian," he explains. One of his disciples, the elected official responsible for health at Brest city hall, Julie Le Goïc, is organizing an "open bidouille" workshop to show off. The young woman with the thick red mane shows the curious onlookers gathered around her a fluorescent jacket for cyclists made in open source. The Brest team has added pollution sensors to it, designed to inform cyclists and be shared on the Internet. But what amuses the activists are these electronic assembly tables where you can tinker according to your needs. Busy as kids, they make a Tetris whose buttons are replaced by any conductive material. Julie is a fan of Fab Labs. "These organizations allow future companies to make prototypes. Not only is there an economic interest, but Fab Labs correspond to our idea of sharing know-how." In her city, a 3D printer company and a fishing lure manufacturer were set up this way. A way to relocate the economy. "Unfortunately, we haven't worked on the mindset of these companies. How can we ensure that they remain collaborative in the end, that they pool machines and skills?" she worries. Carbon. The eco-geek trend seems to have a bright future ahead of it. However, ecology and digital technology don't always go well together. "There are contradictions, such as defending free software and using Mac OS," notes Adrien Saumier, who assures us that he doesn't renew his computer equipment too often. His reasoning echoes that of Jean-Vincent Placé, author of a bill against the planned obsolescence of high-tech objects tabled in April. "Every time we install Wi-Fi for a conference, activists talk about electromagnetic sensitivity," says Fred Neau. He admits to receiving about 400 emails per day and sending more than 60. This is bad, because according to a study by Ademe, the carbon footprint of an email is equivalent to 19 grams of CO2. Fred reassures himself by imagining that the carbon footprint of a physical letter, including transport, would be higher. Like many participants, Damien Hensens is the happy owner of an iPhone with which he shares information from the Young Ecologists on social networks. However, according to a report by the American energy and technology consultancy Digital Power Group, this little machine consumes more electricity than a refrigerator, or 361 kWh... "It's such a useful tool for transmitting data and getting a political message across that it's worth the price of the carbon footprint," he justifies himself. Hoping that there will one day be an alternative, he contributed to Morgan Segui's project to manufacture a fair trade smartphone, Fairtrade Electronics. Another path to follow to reconcile ecology and geekery. Photos Patrick Gherdoussi. Divergence

## ###ARTICLE\_START### ID:712

Edinburgh (Scotland) Special Envoy - In 2007, the TEDGlobal conference was set up in Arusha, Tanzania, with a program dedicated to "The Africa of Possibilities". Scientists, politicians, entrepreneurs, artists, 95% of the speakers were of African origin. In the audience, the most influential bloggers on the continent. Among them, Erik Hersman, Ory Okolloh and Juliana Rotich were already friends on the Web. In Arusha, they became close. Since then, together, they have been shaking things up, and not just in Africa. Emblematic of this globalized, educated and entrepreneurial African youth, convinced of the continent's potential, they create technological tools that make information more transparent, more accessible and democracy finally possible. Juliana Rotich, a pretty 36-year-old Kenyan, is at the heart of this small group of geeks. She was born and raised in a village 40 km from Eldoret, in the Rift Valley, which she left to study computer science at the University of Missouri. After graduating, she took a job as a programmer in Chicago. Passionate, she blogs about Africa and technology, discusses on forums "at first anonymously, because otherwise, as a girl, a lot of not very interesting things happen to you. I was also a volunteer for Global Voices [a network of bloggers], I already saw myself as someone belonging to a certain globality, not as a Kenyan working in software in Chicago". Every year, she returns to her native country for a few weeks. Her stay at Christmas 2007 was like a celebration: it was the presidential election and Juliana Rotich had a front row seat. As a blogger, she obtained press accreditation. "It was fantastic, jovial. I was so happy for my country. » But the results were delayed, one, two, three days. When they were announced, violence broke out, the media kept quiet. « We didn’t know what was happening or who to believe. The television showed songs and celebrations. And on the radio, there were only news flashes but nothing very substantial. I was in the Rift Valley, villages were burning around me. The only real information, like “store food, avoid major roads”, was transmitted by SMS. » Or on the Internet. The group of bloggers published post after post: « They recounted what they saw, where they were. Spontaneously, they made a collaborative map that indicated the hotbeds of violence. I told them that I didn’t have continuous access to the Internet and that I couldn’t participate but that the SMS worked well. They added this functionality, updating the map by SMS. That was the real innovation. » Freed from the constraints of the expensive and unreliable Internet, the map became a tool for hundreds of Kenyans who sent their own information. The developers got into battle order to sort the information and verify it. The tree structure and the features of Ushahidi, "testimony" in Swahili, were set up in four days. "From January 2, we returned to our normal lives. I went back to Chicago and resumed my job at Hewitt. And in the evening, I would log in and work on Ushahidi. It continued like that for three months." Very quickly, the tool was spotted by the MacArthur Foundation and then the Omidyar Network, two American philanthropic organizations. They financed a conversion of the software to open source, so that it could be used freely and free of charge. The team resumed writing the code, imagined the different situations in which Ushahidi could be used, and added filter and information verification features. The founding team travels the world to conferences and editorial offices. From the Davos Forum to the Guardian in London, the originality of their story fascinates. "We developed Ushahidi entirely virtually. It's really a baby of the Internet. Our office was to meet online." The Ushahidi cards - 48,000 today - inform and help populations, activists and media wherever they are: in Haiti, after the earthquake, to specify the location of victims; in Nigeria, to check activity in polling stations. In Malawi and Zambia, to know the evolution of vaccine stocks. In Gaza, to complete the coverage of the conflict followed by Al-Jazeera. In Japan, to understand the coverage of radioactivity after the Fukushima disaster... Juliana Rotich left Chicago and returned "permanently" to Kenya at the end of 2011. She joined her group, obtained a scholarship from the MIT Media Lab, and became interested in renewable energies. At TEDGlobal 2013 in Edinburgh, she just presented the BRCK, an Internet modem that allows you to connect to Wi-Fi, 3G and even 4G, without electricity, like a telephone. "Modems are designed and manufactured for the Western environment. We don't have the luxury of cheap Internet. Power outages are commonplace. We have redesigned the modem for our use, our reality, to help ourselves and other coders. The Internet is the playground. It's where you collaborate, where you build the basic infrastructure of the future economy." On Kickstarter, the crowdfunding platform, the team raised the $175,000 needed to put it into production. Proud, talented, ultra-connected, Juliana Rotich never forgets the three fundamental questions passed on by her father: "What are you making?" What are you fixing? Who are you helping? " "We 'technologists' must never forget that," she adds with a smile. "Especially in Africa: because if it works here, it can work anywhere." The end

## ###ARTICLE\_START### ID:713

Edinburgh (Scotland) Special Envoy - Hackers are rarely perceived as useful to society. They evolve in a parallel world, composed of lines of code and avatars, whose scope is poorly perceived. Salvatore Iaconesi, Italian artist, activist and engineer, gives another definition of his favorite activity. For him, "hacking" is "understanding how things work and trying to make them work in a way that is good for oneself or for society". By hacking his own cancer and sharing his cure in open source, Salvatore Iaconesi saved his life as a man, created an extraordinary artistic performance, spread his ideas and created a new space of interaction for thousands of patients and practitioners. Nothing less. "I started hacking public space at the age of 12 with my skateboard: when you are on your board, everything is fun, the smallest rotten bench becomes a magical place for acrobatics. It was skateboarding that showed me that things can be repurposed and that you can expect a lot from them if you apply yourself.” As a teenager, Salvatore Iaconesi discovered free software, “with which you can create wonderful things from nothing,” and joined the squatter movement. Always the same idea: “Reclaim a part of public space to reinvent things, ways of living.” Gifted, Salvatore Iaconesi became a robotics engineer. “I had this totally nomadic life, guided by what I wanted to do at that moment. I want to discover the world and try my hand at things that are important to me. In Brazil, I set up a collaborative platform for creating games. In Denmark, I worked on a rescue robot after earthquakes. In Malaysia, I made video games again. » In love, Salvatore Iaconesi creates with Oriana, his girlfriend, a 100% digital child, an artificial intelligence that evolves between artistic project and conferences at the UN on digital rights. His name: Angel F. "My goal is profound, anthropological change. Politics is too restrictive." They launch the Art is opensource movement, which "explores the mutations of the human being in contact with networks and digital technologies." Salvatore Iaconesi works with Italian municipalities, artists, academics, teaches interactive design and cross-media practices in Rome and Florence. Spotted by TED, he joins the program that allows "40 talents who have demonstrated exceptional courage and unusual accomplishment" to present their ideas during the main conferences. When he returned from TEDGlobal, in the summer of 2012, doctors discovered a brain tumor. "My life stops. Everyone around me changes. I become a succession of diagnoses, dosages, examination dates. A disease on legs." Salvatore Iaconesi is denied access to the images of his tumor: "They were not made for me but for doctors who passed them around according to a protocol that I did not understand. I was nothing more than a patient." He rebels, signs a release, retrieves his file in digital form, goes home, opens his computer. The files are saved in a non-shareable format. The content is incomprehensible to ordinary mortals. "Medicine is an efficient industrial process but it only works from a very simplified part of myself. It hides my psychological and emotional complexity. A treatment cannot be limited to the tumor and the data alone." He feels powerless. So he draws on his deepest conviction: open source. "I converted my file and published it in a format accessible to all on a dedicated site: La Cura. And I asked everyone, not just medicine, to save me." He launched a video appeal: "Take the information about my illness and give me a treatment: create a video, a work of art, a card, a poem, a game, or try to find a solution to my health problem. Artists, designers, hackers, scientists, doctors, photographers, videographers, musicians, writers. Anyone can give me a treatment." Artists were the first to seize the data. The Italian media were interested. "So people sent me their stories, their own medical records. Professors of medicine joined in the conversation, making suggestions, debating among themselves and then with other practitioners of all kinds of medicine, from all countries." The uncontrolled growth of La Cura followed, then surpassed that of his cancer. The site received 80,000 messages in three weeks, 500,000 contributions after a year. "There were so many that people organized themselves into subgroups by theme." The site is equipped with tools to filter and link information, from the most dangerous to the most effective cures, based on the experience and knowledge of the participants: "We have treatment proposals from all over the world, thousands of personal experiences, from the most universal to the most intimate. We have broken down barriers." Artists are getting involved. He is convinced: La Cura "is a solution because it generates dialogue, it cancels this feeling of false security, promotes critical and comparative approaches, and above all the quest for solidarity and dignity." With these thousands of pieces of information, Salvatore Iaconesi was able to select his protocol, his doctor, the type of intervention he was going to undergo. "Before starting this project, I was cancer 40,268. Now, I am Salvatore again, even in the eyes of doctors. With all my complexity. And I think I'm fine."

## ###ARTICLE\_START### ID:714

At Microsoft, CEOs are retiring young. After founder Bill Gates left to run his foundation full-time in 2006 at age 51, it is Steve Ballmer, his successor, who will leave the company before he turns 58. In a statement released Friday afternoon, the microcomputer giant announced that its CEO has decided to retire "within the next twelve months," while a replacement is found. Ballmer justified this surprise departure by the adoption by Microsoft of "a new strategy, with a new organization," adding: "There is never a perfect time for this type of transition [...], but we are transforming ourselves into a device and services company, and we need someone who will be there for the long term to lead us in this direction." This resignation is mainly explained by Steve Ballmer's failure in the tablet market. In early August, Microsoft lowered the price of the high-end version of its Surface tablet by $100 (75 euros). In July, it was its entry-level version that saw its prices drop by 30%. A measure that resulted in a charge of $900 million in the quarterly accounts. Ballmer joined Microsoft in 1980, when the company had only 29 employees, and accompanied the group's extraordinary growth in various management positions, before becoming CEO in 2000. At that time, the company was run by the Ballmer-Gates duo, with the latter remaining chairman of the board of directors and chief software architect. It was not until 2007 that Ballmer took full power and became the image of Microsoft. His exuberant personality is expressed during corporate conferences and IT events. His filmed performances, where we see a man wrapped up, bald and sweating, shouting "Microsoft! Oh I love this company!” or “Developers, developers…” have been seen by millions of people. The man also does not hesitate to make excessive statements. While Microsoft was attacked by the European authorities for its dominant position, Ballmer attacked free software like Linux, supposedly “cancers for intellectual property”, as well as “communism”. Holder of 333 million Microsoft shares, and a total fortune estimated at 15 billion dollars, Steve Ballmer could become even richer thanks to his resignation. Friday at the start of trading, Microsoft shares jumped by more than 5% on the Nasdaq.

## ###ARTICLE\_START### ID:715

With 650 million units, Africa has surpassed the United States and Europe in the number of mobile phones. This is a device that allows it to avoid the very costly and often difficult installation of landlines. English speakers readily use the image of the game of leapfrog to talk about the advancement of this technology on the African continent. But perhaps the most important thing is that this new situation both allows and requires the cooperation (not always easy) of governments, the private sector, NGOs and individuals. This situation prefigures a kind of new social contract in which initiatives that come from above and those that come from below are brought into more frequent interaction. The case of mobile money transfers is a good illustration of this. “A lot of Kenyans live in big cities and send money every week to their relatives back home,” says Waceke Mbugua, marketing and communications manager at Safaricom, Kenya’s largest telecommunications operator. “Because they don’t have bank accounts, they have to carry the money themselves or give a bundle of notes to a bus driver to give to a relative once the bus arrives in the village.” To address this challenge, Safaricom launched M-Pesa (pesa means money in Swahili) in 2007 with the help of Vodaphone and the British government. Today, 17 of Kenya’s 19 million people have an M-Pesa account. They can pay for vegetables at the market, electricity for their homes or their children’s school fees. It also helps boost the economy. According to the Gallup Institute, 66% of money transfers in Kenya are made by mobile (2% by banks) and the continent leads the way in this type of transaction. Banks, caught off guard in Kenya - where Safaricom benefited from the government's benevolent attitude - have worked to block the adoption of similar solutions in other countries. The Tunisian and Egyptian uprisings of 2011 were wrongly called the Twitter or Facebook revolutions. "It's a simplification to give all the credit to online means of communication," says Rami Raouf, who helped transmit visual testimonies of the January events in Cairo. "Most people didn't even know Facebook and Twitter existed, or they didn't have smartphones." However, no one disputes that the protesters - mostly young, unemployed urbanites - made good use of the mobile phones they had in greater proportions than the rest of the population. Thanks to these, they were able to organize themselves, convince themselves that there were many of them in the streets and inform the world about what was happening in their country. A little further south, in 2007, a handful of Kenyan geeks and activists set up Ushahidi ("testimony" in Swahili), a free software platform allowing any citizen to report fraud during the counting of the presidential election. A good example of the power of calling on Internet users (crowdsourcing), Ushahidi has been used 25,000 times worldwide since its creation. This African technological innovation made it possible, after the Fukushima tsunami, and thanks to SMS and its mobile application, to report dangerous or destroyed points, as well as first aid stations. Ushahidi is used to denounce cases of corruption in Nigeria or sexual harassment in Egypt. However, can we conclude that access to the Internet and mobile telephony are useful for development? There is no shortage of skeptics, chief among them Bill Gates, whose foundation is active in Africa. In an interview published on August 8 by Bloomberg Business-week, he criticized Project Loon, Google’s initiative to provide developing countries with access to the Internet through a network of balloons flying at altitudes of more than 20,000 meters. An absurd idea for the founder of Microsoft, who noted: “When you have malaria, looking up and seeing connected balloons is not what is going to help you get better.” It’s fair game between business rivals, but Erik Hersman, founder of Ushahidi, attacked his simplistic vision on his blog, WhiteAfrican: “Yes, we need solutions for malaria, better teacher training [better pay] and better schools. Yes, we need children to have access to computers earlier and better Internet connectivity across the continent.” Everyone can pursue one of these two paths without shaming those who choose the other." In May, Bill Gates criticized a book by Zambian economist Dambisa Moyo called Dead Aid as "promoting evil" because it criticized international aid. And the "African Bill Gates" seems to agree. A few months ago, Ghanaian Herman Chinery-Hesse, who earned that moniker by making his fortune selling software, showed me ShopAfrica53.com, a portal he created for small entrepreneurs and artisans to sell their products directly to the rest of the world, saying: "It will take time, but it will be more effective than anything aid has done in that time. I don't know of any country that has developed because of aid." At the other end of the government/private sector/activist spectrum, I found Marlon Parker in Cape Town. Living in a neighborhood where it was easier for young people to sell drugs than to find a job, he decided to show them how to tell their stories digitally. To make it easier for the mentors tasked with helping them get out of it, Marlon Parker developed Jamiix, an application that can manage up to 300 exchanges per hour. The service is used by Mxit, the largest social network in South Africa and the continent, and in 18 countries including Great Britain and Finland. The World Health Organization has adopted it, and Indonesia uses it for exchanges after an earthquake or tsunami. Starting as an activist, Marlon Parker has become a recognized entrepreneur. He has set himself the goal of having a positive impact on the lives of 2 billion people through technology in his lifetime. None of this would be worth anything if Africans did not have mobile phones. However, it is difficult to assess the real rate of equipment. It can be estimated that in Africa, of the 650 million cell phones, 90% correspond to basic phones for which SMS usage is predominant. Smartphones represent (with significant differences from one country to another) less than 2%, and digital phones, with Internet access, the rest. The first six African markets have more than 30 million subscribers, with great disparities. If the penetration rate is nearly 90% in Senegal, where a pilot project allows parents to declare the birth of their children by SMS, it is barely 7% in Eritrea. However, everywhere, the mobile is the instrument of choice for accessing the Internet. Example among others: 58% of Internet traffic in Zimbabwe is mobile, compared to 10% worldwide. Although Africa has twice as many SIM cards as the United States, mobile telephony is not driving development. But "Africa's enthusiasm for technology is driving growth," noted the British weekly The Economist in December 2011. François Bar, a professor of communications at the University of Southern California who has participated in several studies on the subject, told us that "most studies show that the introduction of mobile telephony transforms economic and social structures. It makes existing exchanges more efficient and allows for the introduction of new forms of organization and transaction." A recent report from the GSMA, the leading association of mobile operators, shows that a doubling of cell phone use for data access translates into a 0.5% increase in gross domestic product (GDP) per capita. The move to 3G technology also has a measurable positive effect: 0.15% of GDP per capita. Even productivity increases after a while. But can mobile change society? This is what Ghanaian social entrepreneur Bright Simons is trying to do - along with many others - with mPedigree, a service that checks whether a drug is legitimate by simply sending an SMS. Essential on a continent where fakes represent up to 30% of those put on sale and can kill. "The key promise of mobile telephony is that it can fuel the emergence of new ecosystems of value creation and sharing without having to go through the prior expansion of heavy physical infrastructure," Bright Simons tells us by email. But even initiatives coming from below must contribute to the improvement of deficient infrastructures, diverting them if necessary. This is why in 2011, during our visit to Accra, he told me: "If Steve Jobs had been African, he would have been a social entrepreneur..."

## ###ARTICLE\_START### ID:716

LOS ANGELES — Billionaire inventor Elon Musk unveiled his vision for the future of transportation yesterday: tubes and pods that would take people from Los Angeles to San Francisco — nearly 370 miles — in 30 minutes. Here’s a sneak peek at a stunning concept. From Steve Jobs to Walt Disney, California innovators have a history of coming up with ideas that seem both brilliant and bizarre. Musk’s announcement yesterday may have set a new record for the genre. The billionaire founder of PayPal and head of electric car company Tesla unveiled his vision for the future of transportation: a tube in which pods carrying passengers would travel at speeds that nearly break the sound barrier — and for a fraction of the cost of a plane ticket. "Unless we can figure out how to teleport (and I hope someone does), the only way to achieve superfast transportation is to build a tube that contains a special environment," Musk wrote in a 57-page study released on Tesla's website. The Hyperloop concept uses electromagnetic acceleration to propel a capsule that floats on a cushion of air, a concept that could reach speeds of over 750 miles per hour. "Aerodynamic simulations have demonstrated the validity of this concept," Musk wrote. As an example, Musk studied the feasibility of a link between Los Angeles and San Francisco. "The trip would take about 30 minutes. Capsules would depart every 30 seconds and would hold 28 people each. This would mean that 7.4 million people could be transported each year." The two tubes (one for the outward journey, one for the return journey) would be in the air, supported by pylons, resistant to weather and earthquakes, and are easier to sell to landowners than a railway line. Musk says he has considered creating a vacuum tube, to completely eliminate air resistance. "And it's extremely difficult to create a vacuum in a room, let alone a tube that's hundreds of miles long, with dozens of relays and thousands of capsules going in and out every day." $6 billion Born in South Africa, Musk, 42, is no stranger to seemingly impossible projects: he heads Tesla, a pioneer in the world of electric cars; SpaceX, the company specializing in transporting equipment into space; and SolarCity, the second-largest installer of solar panels in the United States. Hundreds of SpaceX engineers have been working on the document for more than a year, he noted. His announcement comes as construction is set to begin on a high-speed rail line between Los Angeles and San Francisco this summer. He estimates the project could be built for less than $6 billion. The high-speed rail, which is to connect California’s two largest cities, is expected to cost $68 billion. Musk says he doesn’t have time to work on the Hyperloop, and has said he’s releasing the project in an “open-source format.” But if no one picks up on the idea, Musk has said he’s considering piloting the project himself — in a few years.

## ###ARTICLE\_START### ID:717

New York -- Shares of Apple Inc. were up Monday amid renewed speculation about a new iPhone and a possible cheaper version of the device that's more suited to emerging markets. Shares were up 2.8 percent at $467.36 on the New York Stock Exchange Monday. According to tech website AllThingsD.com, which doesn't identify its sources, Apple is holding an event on Sept. 10 to unveil its new iPhone. In addition to an updated version of the current iPhone 5, the company could announce a lower-cost version of its popular phone, which the market has been speculating about for months. While the iPhone remains a cash cow for Apple, its share of the global smartphone market is eroding in the face of competition from cheaper models running Google's Android operating system and manufactured by several groups led by South Korea's Samsung. Price is also likely to become an increasingly important variable in the coming years, as developed markets begin to become saturated and growth will come primarily from emerging countries. "If Apple launches a cheaper iPhone, it will immediately gain market share from Android," said Trip Chowdhry of Global Equity Research, who noted that "in many parts of the world, consumers are not well informed and are buying Android phones thinking they are buying a cheaper iPhone." Apple has so far resisted launching a low-cost iPhone. The company itself does not provide sales details for its various models, but analysts say sales remain strong for older models such as the iPhone 4 and 4S, reflecting demand for a less expensive product. A smartphone running Firefox In fact, Chinese telecommunications group ZTE announced Monday that it was putting up for sale on eBay in the United States and the United Kingdom a low-cost smartphone running the open-source Firefox software. The ZTE Open phone will be sold "soon" through the online sales site for US$79.99, according to a statement from the company. It is not locked and can be used with any mobile phone operator. "The global availability of the ZTE Open through eBay means that more consumers around the world can, for the first time, buy a smartphone based entirely on open standards," the statement said. Firefox OS, designed by the Mozilla Foundation, is among the smaller mobile operating systems that are trying to challenge the current dominance of Google's Android and Apple's iOS. ZTE was the world's fifth-largest smartphone maker in the second quarter, with 10.1 million units sold and a 4.2% market share, according to estimates by research firm IDC.

## ###ARTICLE\_START### ID:718

Twitter launches its music application The microblogging site Twitter launched its free music recommendation application for iPhone and iPad in France at the end of last week. It will be available later for Android users. NBC invests in mobile video The media group NBC News, a subsidiary of the American Comcast, announced Monday that it had acquired the Stringwire video service specializing in images produced on mobile devices, for an undisclosed sum. ZTE sells a smartphone on eBay The Chinese telecoms group ZTE will soon sell on the online auction site eBay in the United States and the United Kingdom a low-cost smartphone ($80 or £60) running the free Firefox software. It will be able to be used with any mobile operator. WPP strengthens its position in Africa The British advertising group will increase its stake from 33.6% to 50.1% in the capital of Scangroup, one of the leaders in diversified communications in Africa. Based in Kenya, Scangroup employs nearly 800 people in several sub-Saharan countries.

## ###ARTICLE\_START### ID:719

New technologies are transforming the production and dissemination of knowledge. Le Devoir is offering a summer series on digital humanities and digital social sciences. Today: computer science at the service of lexicography. What is a cornflower? The good old Petit Robert in paper says that the word designates: 1. A "blue-flowered centaurea, common in wheat"; 2. A regionalism of Canada designating the "blue berry of the wood bilberry, or American blueberry." Very good. That makes sense. The new Quebec dictionary Usito, available online for a few weeks, instead suggests: 1. "Name given to blue-flowered centaureas, in particular to the cornflower"; 2. "A blackish-blue berry, with a sweet and tangy flavor, produced by various species of upright bilberry, notably species native to eastern North America." Exit regionalism and hello to the Quebec reality. The site also lines up expressions that are very local, "blueberry talle" or "blueberry jam"; adds a quote from Félix-Antoine Savard; ends with this other definition of Bleuet (with a capital letter this time): 3. "Nickname of the inhabitants of the Saguenay-Lac-Saint-Jean region, known for its blueberry production." A quote from Le Droit supports this usage. Well seen. Thank you. Next. We can continue the comparison exercise with other small fruits. Under raspberry, we are talking about the "casseau". Under strawberry, we find a quote from Anne Hébert and the explanation of the delicious expression "se paqueter la fraise", incomprehensible for a French or Gabonese freshly landed on this side of the North Atlantic. "Usito relies entirely on new technological tools," explains Hélène Cajolet-Laganière, professor in the Department of Letters and Communications at the Université de Sherbrooke (UdeS). "This is the first time in the French-speaking world that a dictionary has been produced in an entirely digital environment. From the moment we put the first word in the text database to the online additions and corrections that continue today, everything has been dematerialized. Initially, we even thought about printing a version from our moving database. We abandoned this project. The site is much more practical." Starting over A famous predecessor, Adjutor Rivard, the first Quebec linguist, already expressed the desire for a description of the French language used in Canada just 100 years ago. Some fine works, the Dictionnaire québécois d'aujourd'hui or the Dictionnaire du français plus, come close to the goal, but by adapting French productions, "excellent, but made by and for the French," says the professor. "These reference works add Belgian or Quebec regionalisms," she continues. "They cite less than a hundred authors from here. Josette Rey-Debove [1929-2005], co-author of Robert, had said that, to develop a Quebec dictionary that meets our needs, we had to start the work from scratch." The linguist therefore tackled the colossal task, with her colleague Pierre Martel, former president of the CLF. Together, they founded the FRANQUS (French in Quebec: Standard Usage) research group within the venerable Centre for the Analysis and Computer Processing of Quebec French (CATIFQ) at the University of Sherbrooke (UdeS). The group's goal is "to identify and describe contemporary French in public use in Quebec." To find the vocabulary to define and exemplify, it was first necessary to create a text bank. The digitized corpus now includes some 52 million words drawn from literature (novels, poems, short stories), the media, science and technology (aluminum smelting, aeronautics, hydroelectricity, etc.), economics, justice, universities (learned journals, dissertations and theses) and even oral corpora. These words were then indexed and lemmatized (by declining the entire conjugation of a verb, for example). A search engine has made it possible to codify the compositions (peach trout, speckled trout, gray trout, etc.) and find useful quotes. Digitization also facilitates comparison between existing dictionaries. Pay it all L'Usito (a name chosen by a specialized firm...) brings together more than 60,000 words and 100,000 uses, including 10,000 specific to Quebec. It contains more than 36,000 quotes. "We work in a paperless world," says the specialist proudly. "There are no limits on screens either. We were able to include about 6,000 conjugation tables." The beautiful work advertises itself with this formula: "Because French never stops." When Quebec City was struck by Legionnaires' disease, the reference work added "légionellosis" to its dematerialized corpus, which is as malleable as you want. "A reader suggested it to us, but Usito is not Wikipedia," says the professor. "Users don't build the articles. We have an editorial team and we build our corpus scientifically." At its peak, about thirty people worked on the work, which cost about $10 million, all public money. So why charge for subscriptions (up to $60 per year), especially since Usito uses free software? "All of this belongs to the university and we have given up all our copyrights," replies the professor. "A few years ago, when the work was expanding, the UdeS was kind enough to support us until the launch. But it forced us to make the dictionary profitable for its further development." The Delisme publishing company now manages the dictionary. The linguist points out that the subscription can cost as little as 30 cents per student if a college subscribes its students in groups, for example. She points out that other Quebec university teams, including Le trésor de la langue française in Quebec City and a bilingual dictionary project in Ottawa, have never come to fruition despite decades of work and colossal sums of money. "We're done, we're online and we have to accept certain constraints." Tout sujet The site provides users with very simple and very useful tools, for example to distinguish between uses here and elsewhere or to tolerate a margin of spelling error when consulting, as on any good search engine. For example, you just have to type "amfitrion" to be sent to "amphitryon." "Each time, we start from the common core of the Francophonie and we identify the particularities," says Ms. Cajolet, providing examples. The database showed that "peinfiner" could not be classified as "familiar" and that several anglicisms are not. We can also talk about lettuce. The basis of the definition seems, so to speak, universal. The ramifications, on the other hand, allow us to distinguish the European batavia from the Boston or the iceberg of the New World. No French-French dictionary allows us to untangle these leaves. "It's the same thing with feminization," says the linguist. "We point out that sculpteure is in use in Quebec. But we are not a normative body. When we talk about a best-seller, we point out that the sometimes criticized word has passed into standard usage. It's the same thing with "prioriser." We relay the norm as it manifests itself in carefully crafted texts, with good Quebecisms, for example those that are well used in Le Devoir or L'actualité." The tensions between the "developers" (or endogenists) and the "internationalizers" (or exogenists) are evident. For its detractors, Usito would be on the first side, by helping to assert an autonomous norm for Quebec French. "It is very unfair to accuse us of linguistic separatism," the professor replies. "On the contrary, we advocate openness to the world. Furthermore, we are not a normative body. We do not say to say or not to say this or that. But we say what is said here. I repeat: Quebec is not in Le Larousse or Le Robert, where the bleuet is "an American blueberry," a matter settled in one line."

## ###ARTICLE\_START### ID:720

Tor Literally "onion router", this free software uses a decentralized network that routes your data through layers that make them anonymous. VPN A "virtual private network", which is activated online or via software, creates a "tunnel" that encrypts data. 5 euros is the price to pay - in addition to your subscription - to anonymously benefit from a Navigo pass on public transport in the Paris region. Called to order in 2007, the RATP launched this "Navigo découverte" allowing you to travel without your personal data appearing. The classic Navigo is free.

## ###ARTICLE\_START### ID:721

Amazon reported a loss of $7 million (€5.3 million) in the second quarter, compared to a profit of the same amount in the second quarter of 2012. The American group, commenting on these results on Thursday, July 26, highlighted "additional investments to support continued business growth." Turnover also climbed 22% to $15.7 billion. Sales related to the digital environment created by the company are doing particularly well. "Our ten best sellers are all digital" (the different ranges of the Kindle tablet), emphasized Jeff Bezos, founder and CEO of Amazon. The Seattle (Washington) company continues its lead in the digital book and tablet market. Its app store is now established in nearly 200 countries and its tablets are present in 170 countries. Amazon began selling ebooks in 2007. Four years later, in 2011, in the United States, sales of digital books exceeded those of physical books. Across the Atlantic, a real shift is underway. In 2012, one in four Americans had read at least one digital book, compared to one in six in 2011. Digital books represented 22% of the publishing market (excluding school books) in 2012. According to industry forecasts, this figure should climb to 37% in 2015 and reach $5.57 billion, compared to $3.04 billion in 2012. In terms of reading media, a second development is emerging: the collapse of the black and white e-reader market in favor of color tablets. "E-readers are a niche product, intended for heavy readers," comments Stéphane Amiot of the consulting firm Readbooks, a subsidiary of the Canadian group Quebecor. Apple, main rival For reading books, mixed-use tablets and the seven-inch format, that of the Kindle Fire, but also that of Apple's mini iPad, are tending to become more widespread. In the United States, books are the second most popular content purchase, after music, and three out of five Americans use their tablets to buy books. According to the market research institute GFK, 275 million tablets should be sold worldwide in 2013. Their price has fallen sharply, by 30% on average, in all countries. The hardware is less and less valuable, with the margin being made on the content. This is why Amazon acquired Goodreads in the spring of 2013, a social network for sharing reading that brings together 20 million subscribers in the United States. Indeed, prescription remains Amazon's Achilles heel. As much as the online commerce giant has demonstrated its effectiveness in satisfying all customers looking for a specific book, it struggles to attract those who do not know what they want. The Internet does not help to choose a book. Electronic browsing remains a gadget and advice from a reader or bookseller remains a more effective means. Faced with its competitors, Amazon continues to have the wind in its sails, but the games on the digital book market are far from being over. Apple continues to be the main rival. Even under the threat of a lawsuit with the American justice system for collusion with publishers on the price of digital books, the apple company remains the second player on tablets. Apple, the leading music seller, forced Amazon to change its model in the sale of books. The latter was unable to break prices, particularly for sales of new releases. In order to avoid prosecution in the United States for collusion on the price of digital books, five publishers (Hachette, HarperCollins, Simon & Schuster, Penguin and McMillan) paid a fine of 125 million euros, but the mandate contract that allows them to control the sale price was not condemned by the courts. Similarly, the American bookseller Barnes & Noble, which separated from its CEO in early July, continues to be a major player in the book market in the United States, firstly through its bookstores. Even though it has withdrawn from the e-reader market, it remains present in the e-book market, from which it generates significant revenue. Finally, outside the United States, Kobo, a subsidiary of Rakuten (the "Japanese Amazon"), weighs on the e-book market, particularly in France and Italy, where it has reached agreements with local players (Fnac or Mandori). Finally, there are also players like The Ebook Alternative which relies on free software and not on closed systems like Amazon or Apple.

## ###ARTICLE\_START### ID:722

In April, a bombshell was thrown into the economic research pond: one of the most cited economics papers in recent years by proponents of austerity, according to which a country's growth rate becomes negative when its debt exceeds 90% of gross domestic product (GDP), was allegedly marred by calculation errors and data manipulation. Three economists from the University of Massachusetts discovered the fraud after gaining access to the Excel spreadsheet that Harvard researchers Carmen Reinhart and Kenneth Rogoff had used to build their demonstration. The causes: Excel formula errors, arbitrary exclusion of certain data, and unconventional weighting - without which the result would no longer be conclusive at all and would not argue in favor of keeping debt below 90% of GDP. When the affair broke, the majority of researchers in economics, and more broadly in the human and social sciences, probably felt protected by their intellectual honesty and work practices perceived as better (for example, using a programming language that is more traceable than Excel, such as Matlab or R). But is that enough? To answer no, it is enough to note that coding errors occur very quickly (sometimes leading to the withdrawal of an erroneous article after its publication) and that the majority of researchers who code do not have a good understanding of software testing. Conversely, a good practice consisting of sharing your code written in an open source language increases the chances of detecting errors. Computer science has this advantage over experimental science that it is easily reproducible: give anyone your source code and your data, and they will come up with the same results as you. Have them enter their own data, and everyone can appropriate your work: your code becomes a tool. This is the bet made in 2011 by RunMyCode (www.runmycode.org), an international non-profit academic project, initially supported by a French team of engineers and researchers from the CNRS, HEC Paris and the University of Orléans. It allows to accompany its traditional scientific publication with an interactive "companion site", to make it an "executable publication" in the computer science sense of the term. Initially focused on statistical calculation issues related to econometrics, RunMyCode is opening up to other scientific disciplines. The 80 companion sites already created allow, on the one hand, to share high-level know-how and, on the other hand, to make it interactive thanks to an interface for executing the code and entering data. RunMyCode also provides traceability of all the version and execution conditions that made it possible to obtain the results described, to facilitate their reproduction. RunMyCode benefits from the technological support of the CNRS with the large Huma-Num research infrastructure, the Agence nationale de la recherche (ANR), the HEC Foundation and the Alfred P. Sloan Foundation (New York). Since 2012, it has also benefited from the support and collaboration of a team of researchers from EFREI, a computer engineering school. A companion site allowing you to reproduce your results does not equate to the ultimate validation that would be an independent replication of your work, but this is not always possible (for example when the data are colossal or expensive to collect, as in cohort studies in epidemiology or in astronomical observations). Reproducible research is an "attainable minimum" to assess the validity of a scientific result and not to be satisfied with a situation where a result is either replicated (therefore validated independently by the community) or not replicated (therefore subject to caution). And even with this minimal constraint, we see that researchers often use software that does not allow them to trace all the data analyses performed. And when they code (for example with Matlab or R), they often use different processes and routines whose link between them is not saved. A recent survey showed that the researchers interviewed overwhelmingly choose their software not based on strictly scientific criteria, but because it has been recommended to them or because they have seen it used in scientific publications - even if these publications do not provide proof that the software is reliable. It is therefore decades of computer science practice that must be rebuilt, involving all developers of scientific software, their users and editors of scientific journals, to build a "culture of reproducibility" at all levels of research. On February 13, Daniele Fanelli, a researcher at the University of Edinburgh specializing in scientific integrity, proposed in the journal Nature to broaden the definition of scientific fraud to any omission or distortion of information necessary and sufficient to assess the validity and importance of research. Until now, fraud has mainly been fought by trying to make scientists more objective and honest than ordinary mortals, which has led to the loss of sight of the fact that it is not the intrinsic qualities of researchers that make scientific knowledge robust, but rather the exercise of peer judgment. So if we want to advance good science, what could be better than strengthening its capacity for self-correction? Mr. Fanelli suggests, for example, that scientific journals adopt charters dictating all the information necessary and sufficient for a "good" publication. This openness would not eliminate the autonomy of the researcher: he is free to "fish" for the statistically significant result in his data, provided that he indicates all the statistical tests carried out so that his peers can decide on the risks of false positives. Thus, the fight against scientific fraud would be played out more in the field of communicating results than in the behavior of researchers. The culture of reproducibility is an ally of scientific integrity. Anatole France wrote in 1889 in his short story Balthasar that "science is infallible; but scientists are always wrong". We encourage researchers to recognize their limits and to promote constructive dialogue within the community through greater transparency. One way is to accompany scientific publications with data sets and source codes that will allow their colleagues to reproduce their results. And who knows if along the way they will not find other benefits, by better disseminating their results and allowing a wide audience to "play" with the code and data?

## ###ARTICLE\_START### ID:723

New smartphones at low prices are arriving in Europe. On Tuesday, Movistar, a subsidiary of Telefonica in Spain, was the first operator in the world to offer a mobile phone equipped with the Firefox operating system - a software that is free to copy and use - the "ZTE Open". The device is sold at 69 euros, including 30 euros of communication for customers who opt for a prepaid card. Telefonica will offer other mobiles using Firefox, in particular the Alcatel One Touch Fire, whose price is set at 99 euros. No agreement of this type has yet been signed for France. On the other hand, Nokia will offer in Europe, including in France, a 3G smartphone, called 208, and sold at 69 euros. MC

## ###ARTICLE\_START### ID:724

The product has been a huge success since March and continues to this day," says a spokesperson for the online retailer Materiel.net, which has sold several thousand copies of this new high-tech star in France over the past four months: the Raspberry Pi. "We dreamed of selling 10,000, we must be at 1.5 million," jokes Eben Upton, the happy president of the English non-profit foundation that developed the machine. The "raspberry" is in fact a minimalist computer, without a case, barely bigger than a credit card, and sold at the unbeatable price of 40 euros. Without a screen, mouse or keyboard, but with wired Internet access, high-resolution video output and USB ports for adding peripherals. The hard drive is a camera memory card containing the operating system of your choice from the GNU/Linux family (Fedora, Arch, Raspbian, Android, etc.). In terms of performance, it's more of a smartphone than a powerful PC: 512 MB of RAM and a 700 MHz processor complemented by a graphics chip. Its creators, an English team of Cambridge academics and employees of electronics companies, wanted this stripped-down and inexpensive side to give middle school students and future engineers a taste for programming. Its success quickly went beyond the simple school setting. By tinkering and programming the machine a little, it is thus possible to have at home the equivalent of products sold at very high prices, such as a connected television, a multimedia center to manage video and music, a "private cloud" like an email or file server, a web radio, or even a surveillance camera system... "For less than 50 euros, it's crazy!", says a research engineer in a biology laboratory who uses it at home and at work. When the Raspberry Pi was launched, there were competing systems, but none had such a finish. » At home, he uses it for email, to read news feeds from websites or to access his other computers. At work, he has turned it into a server hosting a collaborative site (wiki) and electronic laboratory notebooks. "It's small, it consumes little power and it doesn't make noise, because there is no ideal fan," he concludes. A community quickly formed around this small computer that is quite easily adaptable. The operating systems are free, as are most of the features. That is to say, everyone can, at leisure, modify the machine and its behavior and then share their ideas with other users. A monthly English-language magazine, The MagPi, is dedicated to it. The first book in French, Raspberry Pi. Prise en main et premières réalisations (Dunod, 224 p., €19.90), has just been published by Christian Tavernier, an associate professor at ISITV, an engineering school at the University of Toulon. The most astonishing projects have multiplied. A supercomputer made of 64 Raspberry Pis, an observation balloon for taking aerial photos, an underwater drone, autonomous vehicles, energy consumption controllers... "The fall in prices and progress in the integration of components have made this possible. Four or five years ago, the size would have been four times larger," estimates Christophe Tavernier. This success should not diminish because the Raspberry Pi has an advantage over traditional computers: a dozen connectors allowing it to be connected to the outside world with sensors, cameras, light diodes, motors, etc. "What is missing today in the computers used in schools are interfaces with the outside world. There were possibly parallel ports for printers, but these have disappeared," regrets Christian Tavernier. He then cites another successful object which, married with the Raspberry Pi, further increases its capabilities: the Arduino. The latter, older (2005), is not a computer but a microcontroller, that is to say a machine with little power and memory and no operating system, but which can light up diodes, operate motors, etc. "This complete system, which still requires a bit of technique, can appeal to computer scientists as well as electronics engineers," notes Christophe Tavernier, also the author of best-selling books on Arduino. "It's a way of touching on everyday things and not being satisfied, for a beginner student, with displaying "Hello" on a screen," says Pierre Ducroquet, member of the Chtinux association for the promotion of free software in Lille. The Raspberry Pi has also created a new market attracting competitors. BeagleBone, MarsBoard, OLinuXino, Hackberry and Rascal are other more powerful models although a little more expensive. Because the Raspberry Pi has some flaws: a fairly useless low-quality video output that takes up space, the absence of fast SATA-type connections to connect hard drives, problematic management of power consumption depending on the number of USB devices connected... Purists also point out that the computer is not completely free because the master program, launched at startup and located in the graphics card, cannot be modified. "We also need to simplify the system further to make it truly accessible to young people. This involves better documentation, support, course materials... This is our main project," predicts Eben Upton, who will receive the silver medal of the Royal Academy of Engineering in July. The raspberry is starting to ripen.

## ###ARTICLE\_START### ID:725

“Do it yourself, do it with others”: this is the motto of Fab Labs, or Fabrication Laboratories. You’ve never heard of them? That’s normal, the movement is still underground. Created about ten years ago at the Massachusetts Institute of Technology (MIT) by Neil Gershenfeld, a physics professor who offered a rapid prototyping course entitled “how to make (almost) anything,” Fab Labs are the community fabrication workshops of the digital age. Their goal? To give those who are neither engineers, designers, nor even geeks the means to make all sorts of manufactured objects like in a factory. And they do this by providing them with the necessary knowledge, processes, and technology for free. Open source plans, a few numerically controlled machine tools, a bit of collective learning, a lot of patience and ingenuity... and there you have it, a custom-made piece of furniture, a part to repair your washing machine or even the prototype of an electric bike! Fab Labs have set out to transpose the open and collaborative philosophy of free software to the old industrial world. Chris Anderson, former editor-in-chief of Wired, the bible of American technofans, sees them as "the next industrial revolution", that of the 21st century (read opposite). No more patent problems when the plans and specifications of a designer armchair or a hi-fi amplifier are made freely available to everyone. Any handyman-tinkerer can transform his garage into a workshop to make the object he needs. But Fab Labs are above all a collective experience based on the sharing of knowledge on a local or global scale: an object can be designed in one Fab Lab, made in another... and improved in a third. To obtain the "Fab Lab" label, you must adhere to the charter of the Center for Bits and Atoms, created in 2001 at MIT, and above all have the appropriate machine tools: precision milling machine, drill press, laser cutter, etc. 3D printers are the stuff of many fantasies (EcoFutur, October 1) but are not very popular in Fab Labs due to their limited capabilities: printing is slow and they are limited to plastic. Marginal in France, the movement is starting to spread: there are already five Fab Labs in France, and twenty-four others claim to be such without necessarily having received MIT approval or having requested it. As a result, the subject interests the government in search of heterodox solutions to revive innovation and employment in France. "We want to pollinate the territory with Fab Labs and launch a major digital literacy movement": on Tuesday at Bercy, Fleur Pellerin, the Minister Delegate for the Digital Economy, enthusiastically announced the launch of a call for projects for the creation of around ten of these digital manufacturing workshops. The selection should take place by mid-October. It remains to be seen what these Fab Labs will be used for. Between geekery, Géo Trouvetou projects, and concrete applications in the field, EcoFutura reviewed the potential uses. Learning together The educational dimension is set in stone in the Fab Labs charter: learn, but above all do it together. You should not delegate the realization of your project to a more experienced user, but acquire the skills thanks to the members of the community. The role of Fab Labs managers is not only to play Swiss army knife teachers but also to direct you to resource people. Laser cutting workshops are organized, for example. Fab Labs promote learning through practice, while our school system tends to favor theoretical knowledge. Programs like FabLab@School introduce this vision of learning into schools. They can also be used for scientific mediation, as at the Grenoble science center. "In collaboration with the mediation service, we organize workshops for the general public: how to make loudspeakers or pinhole cameras, a system for taking photos, testify Jean-Michel Molenaar, Fab Lab manager, and Catherine Demarcq, animation manager. We also raise awareness among teachers so that they can set up interdisciplinary projects. Some have made rides with children, mathematical games, a camera obscura or a model of a staircase in middle school." Fab Labs are also starting to arrive in libraries, as a logical evolution of their missions. The latest, and the first in a large city, the Chicago Public Library in Illinois is preparing to open its own. Making your prototype Thanks to shared machines, it is possible to make a project prototype. This proof of concept is an essential step to check whether an idea is viable. At Artilect, a pioneering Fab Lab based in Toulouse, young engineers developed an initial version of a market gardening robot called Naïo. Then, they raised funds through a collection to continue its development. Because it is possible to initiate commercial activities in a Fab Lab. But, as the charter emphasizes, within certain limits: "They must not hinder open access. They must develop beyond the Lab rather than within it and in turn benefit the inventors, Labs and networks that have contributed to their success." In Clermont-Ferrand, the Fab Lab project is being pushed by a young resident of the city who deplores the fact that Pôle Emploi does not offer her the same opportunities to develop a project. Fab Labs to recreate the economic fabric and employment? The United States believes in it. A member of the American Congress has just proposed a "National Fab Lab Network Act" to develop a network in public-private partnership and, among other things, "increase invention and innovation and create businesses and jobs." Repair rather than buy "It's about creating rather than consuming," Neil Gershenfeld often says. In fact, if Fab Labs offer the possibility of creating things, they also allow broken objects to be repaired or improved: sewing up a garment, making a broken part that is no longer available for after-sales service, etc. This dimension interests the French government, which has stated that it wants to encourage consumers to "know the procedures for repairing digital tools (including household appliances) to meet the needs of populations in difficulty." Responding to "unprofitable" needs In his book Fab, Neil Gershenfeld tells how Haakon, a Norwegian shepherd, developed a system that is much more effective than the bell to track his animals: they wear a collar that emits a radio signal that he receives on his farm. But the pastures close to the Arctic Circle are abandoned by the operators, so "Haakon had to build the telecommunications infrastructure he needed." Industrialists are only interested in a market if they find an economic interest in it, which excludes poor or sparsely populated areas. Fab Labs are a good way to meet needs deemed "unprofitable", by relocating (micro) production in the process. Creating social ties "We only talk about machines, but it's a pretext!" Pascal Minguet, co-creator of the first rural Fab Lab in France, in Biarne, in the Jura, is only half joking. Fab Labs are places for meeting, exchanging ideas, (re)integration, a new incarnation of community centers. "We are located in a village of 350 inhabitants that no longer has a café. People come to chat, it's an opportunity to make meals. A model railroader now works with his neighbor, they didn't know they had a common passion. They do workshops and help others. We organize carpooling when we set up temporary Fab Labs. People come to write their CVs, we rely on an association whose goal is to train in digital technology,” says Pascal. The same observation applies in cities. An unemployed or retired person can offer workshops and showcase their knowledge and skills. It’s also a way to find a place in society. At Fac Lab, the Fab Lab at the University of Cergy-Pontoise (Val-d'Oise), Josiane, in her fifties and with nimble fingers, gives sewing lessons and supports anyone who wants to on projects: “I’m in a community where I can lend a hand, for the pleasure of sharing and passing on knowledge. It’s the place that suits me. There are no value judgments and fewer tensions than in the nonprofit sector.” In return, she learned how to use laser cutting to make a small series of leather pouches that Fleur Pellerin fell in love with during her visit. For more information: http://fablabo.net/wiki/Fablab\_F\_aire http://wiki.fablab.is/wiki/Portal:Labs

## ###ARTICLE\_START### ID:726

A year ago, Vincent Gagné received a $20,000 grant from the Desjardins La Capitale Financial Centre during a competition for young entrepreneurs to continue developing his website promoting the rental of houses or apartments for a trip other than booking a hotel. His site Voya.ge is growing and the grant is allowing him to grow it, slowly but surely. "The grant is great," he says in an interview. "If I had had an investor to put up $500,000, I probably would have worked twice as hard, hired programmers, but I wouldn't have learned as much as I do now. With fewer resources, I'm more attentive to what I do with my start-up in a sector where competitors occupy a lot of space." However, these quasi-monopolies of large agencies like HomeAway and RB&B leave sectors completely exposed because of their market structure. So, Vincent Gagné focused on free zones where demand is high, but where services to facilitate rentals are less well served. Paris, New York, he forgets that. The Quebec market also seems pretty saturated. But Budapest, like several cities in Eastern Europe, the island of Malta or the Canary Islands are destinations where the market is freer. To succeed in standing out from the major competitors, he bet on free software and Google tools. At the same time, he offers a free basic service while encouraging users who want to advertise to pay $10 if they want. "Even if there is the free button," he emphasizes, "people pay $10 in the majority of cases. It's a lot less than the $350 per ad packages that other sites charge or the $1,000 per year packages for a maximum of ten photos." To go further, he asks advertisers to put the links on their Facebook page, on their blog or on their own website. He adds articles on local attractions, but he will let landlords and tenants agree on the terms of an agreement. There is no question of putting transactional tools on Voya.ge in the coming months. Buying words for SEO in Google or search tools, or advertising on Facebook, is not within the reach of his start-up company. That is why he chooses to develop additional content on his blog (blog.voya.ge) and his site, content that will be referenced without having to pay. The next step in his entrepreneurial adventure will be to develop tools for landlords so that they can push their content to his site without their intervention for layout and online publishing. Towards the Future "I would like the Voya.ge site to be like the yellow pages," says Vincent Gagné, "without having to search through different web platforms to find the accommodation you are looking for." Over the next six months, he aims to generate more traffic on the web with content and a hierarchy of ads to increase the notoriety of his site. He is in negotiations with real estate agencies in the United States, each of which has a few hundred apartments and houses to offer in addition to the 2,500 properties waiting to be indexed on his site. The challenge seems larger than life, but Vincent Gagné believes that the notoriety of a site develops with patience. Patience that he also uses to establish solid foundations for his business instead of rushing into actions that would harm its growth.

## ###ARTICLE\_START### ID:727

The appetite for genetically modified plants of agrochemical manufacturers, including Monsanto, has led them to obtain from governments that they be able to patent their seeds, processes, and genes. The Economic, Ethical and Social Committee (CEES) of the High Council for Biotechnologies has issued an opinion proposing that the government reverse these patents. Its president, Christine Noiville, explains this recommendation. You propose restricting patents in plant biotechnologies. Why? Industrial property rights are one of the sticking points in the debate on biotechnologies. These exploitation monopolies aim to stimulate innovation, an important issue in terms of breeding, but they have given rise to criticism: multiplication of monopolies, concentration of the seed sector between a few large groups, risks of blocking innovation, etc. The CEES untangles these questions and emphasizes the growing influence of patents in this area. Until the 1990s, everything had been designed to protect innovations through the Plant Variety Certificate which, like free software, allows protected varieties to be freely used to develop others. However, the patent, very different from this point of view, has increasingly become established with biotechnologies. Genetically modified plants, transgenes and processes are patented, but also "native" genes and characteristics (resistance to diseases, drought, etc.), the inventiveness of which is questionable. This results in monopolizing in the hands of a few players a raw material necessary for all breeders. As shown by this SME which, to produce its resistant salads, must pay royalties to a company that has patented the resistance characteristic. What are the main proposals of the CEES? The CEES has formulated technical proposals. While a reflection on this theme is underway in Brussels, this path is the only one capable of defending a French position. The CEES does not question the principle of patenting genetically modified plants. However, it takes a position against the patentability of genes and traits to allow breeders to freely do their job: crossbreed traits and genes. Our country has a dense and diverse network of breeders that must be preserved. The CEES also makes recommendations concerning farmers, who must be protected when their production has been "contaminated" without their knowledge by a patented gene. Finally, it addresses the issue of "peasant seeds" that some farmers develop in their fields but without a clear status to date, in order to protect them without disrupting the current variety protection systems. Is a balance between industrialists and farmers, some of whom defend the non-patentability of genes, possible? Faced with interests and worldviews that are difficult to reconcile, the role of a stakeholder committee such as the CEES is to articulate conflicting interests. Our recommendation shows that stakeholders can find common ground. It does not propose to remove the protection of genetic inventions but to adapt it to the requirements of a plural innovation where each type of selection has its place. The government should draw inspiration without delay from these axes and concrete proposals to build a solid position in this direction.

## ###ARTICLE\_START### ID:728

The disclosures about global digital surveillance by Edward Snowden, a CIA consultant for the National Security Agency (NSA), tasked with intercepting communications, require us to recall the facts and methods. The impact of September 11 and Americans' feeling of being under siege played a decisive role in the expansion of the NSA's resources. The agency legally collects the telephone records of millions of customers of the telephone operator Verizon. By processing call metadata, huge graphs of connections between telephone subscribers are calculated, without the need to listen to the conversations. These graphs reveal social links, but above all highlight group relationships. Communities of people who talk to each other can be identified and extracted, for more intrusive profiling studies. The electronic surveillance program for collecting information from the Internet and other electronic service providers, called Prism, under the Foreign Intelligence Surveillance Act, allows access to Internet users' data, on a global scale, with the complicit silence of the providers (Google, Facebook, Microsoft, Apple, Yahoo, etc.) who secretly relay this data, upon request, to the NSA. Attracted by the use of these providers' services, the Internet user opens an account, accepting, without reading it, the service's user agreement, which authorizes this wiretapping. The legal face-off is unequal because the Internet user naively forgets the absence of confidentiality. Then, he sends letters, delivers his opinion and displays his photos on his "personal" space, or his professional information on his company's space, accessible by his "friends", according to an illusory logic of a semi-public club. The Internet user thus provides his own address book, which facilitates the surveillance task. The links accessed and the identifiers of the participants are recorded, with their attributes. The analysis of this heterogeneous metadata is facilitated by the progress of massive data analysis, of "Big Data", an allusion to "Big Brother". The use of these profiles by service providers is targeted advertising but, for the NSA as for the FBI, it is police identification, or the monitoring of terrorist networks for the CIA. The large service providers become mercenaries of state intelligence. To legitimize these siphons of information flows, laws have been passed in the United States, while the Internet is borderless. They are justified to combat terrorism, child pornography, and money laundering. But the opacity allows doubt about a possible diversion of the purpose into political or economic espionage. For the honest user, it is difficult to defend oneself against these large-scale activities, anchored in our communicating environment. Cryptography is futile, because the content of the messages does not intervene in an initial stage, and these software programs are likely to be trapped from their design. To avoid surveillance, we can give up Google, Apple and Facebook, use free software, anonymization services, but these gateways are not immune to the ambient contagion. Towards a digital Yalta The Americans have provided the entire world with these communication infrastructures and they have de facto control over them. It is possible for them, although difficult on a large scale, to control their use if necessary or to divert part of the data they transmit to their agencies. Furthermore, China is waking up. On a global scale, a digital Yalta is strengthening: Asia for hardware, the United States for software and the commodification of data. Nothing for Europe, incapable of defining a digital industrial policy. Linux and Skype were born there, the initial standards of 2G and ADSL connection are of European origin, but the industry has not been able to value their systemic framework. European storage hosts are emerging, but the components of a European cloud do not exist. Nokia has lost the battle of operating systems, to the benefit of Apple and Google, which have integrated the smartphone into the mobile Internet. The United States has always favored digital, while Europe, unfortunately, does not have this priority. It allows itself to be influenced in the directive on the protection of privacy by the lobbies of global data drainage. Without legislation or industrial program, Europeans can only deliver their personal digital heritage in exchange for free online services, managed without guarantee of protection. The citizens of the planet are therefore excluded from global digital governance, even if a minority denounces the lack of transparency and the centralization of intimate knowledge and its excesses. The credibility of Internet giants is being undermined in Europe by the revelation of Edward Snowden, which is in fact an open secret. For France, the healthy reaction is a societal, cultural and industrial choice, aimed at restoring confidence in our technological means, legislation on the ethics of calculations and data storage, an offensive fight against threats and a strengthening of teaching and research in security.

## ###ARTICLE\_START### ID:729

Paris - Quebec arrived in force this year at the Paris Air Show with a record delegation of some thirty SMEs from the aeronautics sector, accompanying major clients such as Bombardier, Pratt & Whitney, CAE and Bell Helicopter. The Paris Air Show also welcomed a record number of two ministers from the Quebec government, as Minister of Finance and Economy Nicolas Marceau arrived in Paris yesterday accompanied by Minister Delegate for Industrial Policy and the Economic Development Bank, Élaine Zakaïb. This strong ministerial presence was also intended to better support the record number of Quebec companies during their stay at the International Air Show, explained Minister Zakaïb yesterday during a press briefing. Minister Marceau went further by recalling the significant weight of this manufacturing sector for the Quebec economy. In 2012, aeronautics companies employed some 42,550 people and generated record revenues of $12.17 billion. Over the next three days, the two ministers plan to participate in about ten merger, establishment, collaboration and contract award announcements. Today, the merger of two Quebec companies, AV&R and Imac Automatisation, will be announced, and they could take advantage of the opportunity to unveil the conclusion of a major contract. Investissement Québec is also expected to announce today the upcoming establishment of the French company Linagora, a developer of open-source software, in Quebec. Two other French companies, Sogeclair and Aero Hardware, will also announce tomorrow their upcoming establishment on Quebec soil. While these announcements do not result in major foreign investments, they will nevertheless consolidate the aeronautics industrial cluster that Quebec carefully cultivates. Minister Zakaïb hopes to hold meetings with larger industrial groups that could be attracted by the $300 million investment tax holiday that Minister Marceau introduced in his latest budget. "We just had Ericsson, which took advantage of this measure to invest $1.3 billion in Quebec, and many other companies are aware of its existence," noted Nicolas Marceau. According to the Minister of Finance, with the zero deficit approaching, Quebec is now in a much better budgetary position to support investment than France, England or the United States, which are Quebec's major competitors in the aeronautics sector.

## ###ARTICLE\_START### ID:730

The digital company Libéo has just created a new open source software intervention group entirely dedicated to supporting and carrying out Quebec government IT projects. The Open Source Software Services Centre (CS2L) will include about a hundred people, twenty of whom should be hired during the summer. For Jean-François Rousseau, president of the digital firm Libéo and co-founder of CS2L, the new entity dedicated primarily to open source software will help public sector managers focus on their projects, without having to worry about technology. "We already signed an agreement for a mandate with the government on Friday morning," he said in an interview. The Quebec government recently announced its intentions to use open source software more to meet its needs, but current managers are not necessarily specialists in this type of software. Minister Stéphane Bédard ruled in March 2013 that open source software was an essential option for public bodies. With his dedicated team, the president of Libéo is convinced that the public sector will be able to take advantage of the resources of the sector to advance its projects while taking into account the reduction in costs compared to the usual software offered by IT multinationals. "We have therefore designed a solution that responds exactly to this challenge. The company benefits from the knowledge of nearly 100 experts in free software, with diverse and recognized skills," specifies Mr. Rousseau. Moreover, various ministries are currently supported by the Centre d'expertise en logiciellibre, to carry out flagship projects based on free software and technologies over the coming months.

## ###ARTICLE\_START### ID:731

In his passport photo, Neil Harbisson sports a strange device. It is not his blonde Mireille Mathieu haircut that is disturbing, nor his aquiline nose or his green eyes. What is striking is the appendage that the young man wears in the middle of his forehead. After a moment of observation, we can guess the thing connected to a headset hidden under his hair. It is his "Eyeborg": a webcam connected to software that allows him to "hear colors." The British authorities allowed him to keep it for his official photo, which leads Harbisson to say that he is the first cyborg recognized by his country. "Held in C major." If he has become an "augmented human," it is because of Mother Nature, paradoxically. "At first, my parents thought I was confusing certain colors, red and blue, green and yellow. But, by dint of describing everything in dark and light, they made me take a test in 1993," he explains. Verdict: Neil is achromatic, a genetic disorder inherited from his grandfather who shows him the world in black, white and shades of gray. He is then 11 years old, has perfect pitch, plays the piano - a black and white instrument -, hates computers and high-tech. And yet it is technology that Harbisson talks about in conference after conference: the famous TED, the technological and artistic gatherings, or even Re:publica, which is the largest gathering of bloggers, activists and web researchers in Germany. His speech is rehearsed. In English tinged with a strong Spanish accent, this Irish artist who grew up near Barcelona highlights the difficulties he has encountered in everyday life: from the impossibility of differentiating national flags (France-Italy-Ireland, three colored bands, all gray for him) to the social codes that establish red as a stop and green as permission, to metro maps. Each example hits the mark. He jokes about his outfit of the day: a bright orange jacket, blue T-shirt and garish yellow pants, a combination "harmonious in C major, a basic outfit." Then he talks about his resolution, at 16, to study art to shed light on this mystery of colors that he cannot see, comparing his approach to that of a priest, who believes in something that, perhaps, does not exist. On the other hand, it is not religion that carries his hopes, but the physicist Isaac Newton, with his work on the frequency of colors. In 2003, he attended a conference by Adam Montandon on cybernetics and the extension of the senses. "I hated everything technological, but imagining it as an extension of the body changed everything!" Neil Harbisson enthuses. He explains his idea to the young speaker: he wants to hear colors. Montandon creates software that transforms the frequency of colors into sounds. The software is connected to a webcam. Name of the invention: Eyeborg. The first test takes place on March 22, 2004. "An unforgettable date," Harbisson says, moved. His device will evolve over the course of meetings with computer engineers, becoming more efficient, less bulky. The sound now passes through bone conduction. "But it's not the object that makes me a cyborg, it's my integration of the software and the fact that it is now part of me," he explains. The fusion of man and computer science embodied. In 2010, he created a foundation to "recognize and respect the rights of cyborgs." During his conferences, the young man advocates the extension of the senses. Not the repair of a malformation or an accident, but the exploration of new paths in the perception of the world around us. It is not a question of superpowers, but rather of copying nature and adapting it to man, "hacking" it to experiment more. "Shoes help us walk longer, further. It's the same," he assures. In this spirit, the mobile phone that we always have on us is only a phase, an interface that we will soon want to do without. Skull. Next step for him: the implantation inside his skull of the chip that contains his software. He wants the operation to be "public" so that the data is accessible. Harbisson is concerned with sharing knowledge. The software is open source to be used and improved by those who want to get their hands on it, and he has donated Eyeborg to associations for the blind in Tibet and Ecuador. The risks of the augmented human being going awry, the commodification of the body, the hacking of extensions? Neil Harbisson is an enthusiast who "does not share these fears. The question is always how we use technology." He advocates do-it-yourself as if to brush aside the issue of commodification: giving, selling, doing it yourself, everything seems possible. We sense that these questions do not interest him. Staring into space, playing with the miniature potted plant on the table, Harbisson looks like a kid who is bored by the subject. The only time he participated in a round table on transhumanism, "it meant nothing to me, I don't feel like a transhumanist, I feel like a 'cyborgist'." Living two hundred years with the same senses doesn't interest me, while the length of life seemed to obsess the speakers." Neil Harbisson campaigns for cyborgism to become an artistic movement, not a philosophical movement. Neil Harbisson. CV July 27, 1982 Born in Belfast, Ireland. 1993 Recognized achromat. 2003 Met Adam Montandon, who created the software that transforms hues into sounds. 2004 Beginning of the Eyeborg. Harbisson recognized as a cyborg by the United Kingdom. 2007 Perceives 360 hues and saturations. Creation of the Cyborg Foundation. 2013 Project to implant a chip in the skull.

## ###ARTICLE\_START### ID:732

Five years of work, several thousand emails, 4,000 pages written, reread and rewritten by 115 authors: here in a few figures is the story of In territorio nemico ("In enemy territory", not translated into French), the novel that probably has, to date, the largest number of authors. Released in mid-April in Italy by Minimum Fax, the book has been the subject of critical and public enthusiasm. Daily newspapers, blogs and literary reviews have focused on both the technical feat, the debate it has sparked around the status of the author, but also on the subject of the novel: the resistance to the Nazi occupation of Italy during the Second World War. "We have already had to restock several bookstores," says Alessandro Grazioli, one of the managers of Minimum Fax. On April 25, the day of the liberation in Italy, it was ranked 30th best seller on Amazon. » At the origin of this literary UFO lies the will of two young Tuscan writers, Vanni Santoni and Gregorio Magini, passionate about role-playing games and open source software. In 2007, they founded a collective writing method called "Scrittura industriale collettiva": they wanted to publish "a great novel with a leading publisher", explains Vanni Santoni. At the time, the aborted project "A Million Penguins", launched by Penguin Books in Great Britain, acted as a deterrent. Modeled on Wikipedia, it allowed everyone to contribute to the development of a novel via a web page. However, the literary object had quickly turned into a shapeless monster. A tradition To avoid this trap, Scrittura industriale collettiva introduced the notion of "division of labor": those who select the texts - the "composers" - do not write. For the rest, the system, very horizontal, is inspired by the Fordist assembly line: once the theme is decided ("the resistance, because it affects everyone"), the participants collect testimonies on the period. Throughout the development of the novel, they then deliver "files" on the places, the characters, the situations, etc. Among these fragments, the composers choose those that seem the best to them. The objective has now been achieved: we read with pleasure this choral novel that tells the story of the fate of Adele, Matteo and Aldo, separated by the war and ready to do anything to find each other again. In Italy, In territorio nemico is part of a long tradition of collective writing. It dates back to 1929: Lo zar non è morto ("The Tsar is not dead") was an adventure novel written by the Futurists of the Group of Ten, under the leadership of Filippo Tommaso Marinetti, an Italian writer from the early 20th century. Since then, the discipline has gained many followers, to the point that some do not hesitate to say that Italy is the homeland of collective writing. They cite in particular Letter to a Schoolmistress (1967), a book written by the students of the Barbiana school and orchestrated by Don Lorenzo Milani, but especially Q (published by Éditions du Seuil in 2001 under the title L'OEil de Carafa), written by a group of artists and activists grouped under the pseudonym Luther Blissett and whose dissolution, in 2000, gave birth to the Bolognese collective Wu Ming. If In territorio nemico does not contain the subversive charge of Wu Ming, its creators claim a provocative dimension. Publishing a novel written by 230 hands is a "political act", they repeat. "It's a way of demystifying the figure of the all-powerful, idolized writer, whose name has become a brand and who sells books in colossal quantities despite their mediocrity," explains Vanni Santoni. It's also a way of reminding us that, behind each work, there are often many more actors than we think: translators, documentarians, proofreaders, etc. This is why the names of all those who participated in In territorio nemico appear at the end of the novel. Without exception.

## ###ARTICLE\_START### ID:733

There are 24 of them receiving an Octas this year. And there is often more than one winner for a single category, because subdivision is made to take into account the size of the company or, for students, the level of studies reached at the time of the achievement. Moreover, it is one of them, Benoît Duinat, from Université Laval, who saw his project, Mobile simulation application, dedicated to underground infrastructures, receive doubly noticed, because it was awarded the Jury's Favorite. From electronic business to the transformation of organizational processes, here they are, with the title of the project that allowed them to receive an Octas this year, during the gala held last Saturday at the Palais des congrès de Montréal. Electronic Business Société des alcools du Québec Redesign of SAQ.com Modappi Learning Environment Interactive learning module and turnkey course Department of Geomatics Sciences of Université Laval, in collaboration with the Centre de transfert collégial en imagerie multimédia et médias interactifs of Cégep de Sainte-Foy Parallèle: an educational tool based on augmented reality Web environment for collaboration or participation CBC/Radio-Canada, in collaboration with ONIX CBC/Radio-Canada takes the Google turn Infrastructure La Capitale Financial Group Relocation and consolidation of the technological infrastructure TELUS Rimouski Intelligent Internet Data Centre Innovation Arcane Technologies Vortex: the virtual window HEC Montréal Tech3Lab Business Intelligence Société des alcools du Québec Integrated dashboard of strategic performance indicators Games and entertainment BioWare Montréal, in collaboration with BioWare Edmonton Mass Effect 3 French in information technology Bombardier Aerospace Implementation of the new production operating system for the aircraft program CSeries IT at the service of society Lucie-Bruneau Rehabilitation Centre, in collaboration with Génération Multimédia CRLB Virtuel directories of accessible health, leisure and sports venues IT in the cultural, educational and media sectors SAGA in collaboration with LIBÉO 6millionsdemorts.com Pierre Clapperton Youth IT Award Richard and Francis-Olivier Couture, from the Séminaire de Chicoutimi EffiClasse - the school of the future Student succession Étienne Landry, from Cégep de Sainte-Foy, in collaboration with COOPSCO Sainte-Foy SIGECO: Schedule and communication management system Benoît Duinat, from Université Laval Mobile simulation application dedicated to underground infrastructure Jean-Ambroise Vesac, from Université Laval, in collaboration with the Université Laval School of Design Digital migration Business success InnVue ODYSSÉE Solution Axon Business Solution Integration and Development xTester: the multiplatform test orchestrator automated École de technologie supérieure eBourses: for optimal management of the scholarship program Business solution - Free software Commission des transports du Québec, in collaboration with CGI SIM: Integrated mission system Business solution - Software packages Groupe Promutuel OGS: Claims management tool Promutuel - Delivery 1 Mobile solutions Montreal parking, in collaboration with TC Media P$ Mobile service Transformation of organizational processes Les Offices jeunesse internationaux du Québec, in collaboration with Denis Bellerose Atlas consulting services: harmonization of work processes and implementation of a CRM

## ###ARTICLE\_START### ID:734

One of the world leaders in the emerging "big data" market is French. Created in 2005 by Bertrand Diard and Fabrice Bonan, Talend now has 400 employees and 4,000 customers worldwide. The start-up provides solutions to help with data management and integration. The sector is extremely buoyant, alongside the ongoing development of the cloud and the avalanche of all kinds of data circulating in computer networks. These must be organized to be used in advertising, finance or elsewhere. When Talend started, the competition was already there. This did not prevent the French company from growing very quickly. "The data integration solutions that existed at the time were very cumbersome and complex to use," explains Yves de Montcheuil, VP Marketing at Talend, adding that his company favored opensource software, i.e. free software. The advantage of the opensource system? The code is free, and it is constantly enriched by the developer community. In addition, open source is a borderless language, allowing a solution to be distributed more quickly: the technological base is indeed accessible to all. This is what allowed the start-up to offer less expensive and more flexible solutions than those of its competitors. And above all to make itself known in countries where it does not even have commercial representation. The other element that contributed to Talend's success is that, from the beginning, its founders chose to also have a headquarters in the United States. In Los Altos, California. "It was essential to go there. That's where the open source technology players are, and it's the world's largest software market. In addition, to develop your business in this country, you need to have local partners," explains Yves de Montcheuil. Since then, the company has continued its international expansion. Particularly in Asia, and particularly in China and Japan. "One of the other advantages of open source is that we don't have to worry about copyright," jokes Yves de Montcheuil. And also that it is financially accessible to SMEs. "With big data, any company can exploit masses of data, which it didn't have the means to do before due to costs and access to technologies." The strategy is paying off for Talend. Until 2011, the company experienced annual growth of 100%, which has since "fallen" to 50% per year. To keep up the pace, the company says it wants to continue its strategic acquisitions in the coming years.

## ###ARTICLE\_START### ID:735

In order to accelerate the adoption of free software in the government apparatus, but also to support the development of this economic sector in Quebec, the defenders of these so-called open IT solutions are now asking the government to "adopt a policy" aimed at purely and simply banning "the use of proprietary software", i.e. software linked to costly user licenses and whose formats create captive digital environments, and this, in all public bodies. In the process, they invite Quebec to follow in the footsteps of France, which has just placed free software and the open IT formats that result from it at the center of an ambitious digital plan for its education system. "With the current government, we had a lot of expectations," summarizes Cyrille Béraud, a leading figure in the free software industry in Quebec and a member of the Association pour l'appropriation collective de l'informatique libre (FACIL), on the other end of the line. However, we can now only observe a major decline in this area and are now demanding a radical change of direction from Quebec." Unanimously, the FACIL board of directors therefore adopted a resolution a few weeks ago calling on the government to exclude so-called proprietary software from all public services in the future, in order to make room for free software, computer products that are continuing to be implemented in several public administrations around the world. "Free software," as they say, would offer less restrictive and more flexible products. It also allows us to break away from the often costly dependency links with proprietary IT giants, including Microsoft, Apple, Adobe, IBM and Oracle, among others, while ensuring the sustainability of government data, which would represent a significant source of savings in tight budgetary contexts. A controversial decree This other call for the mass adoption of free software comes just a few months after Quebec decided to renew for one year a controversial decree that favors the awarding of public IT contracts to these proprietary software giants, "in contempt" of free software, industry representatives had denounced at the time. This measure was taken to keep 76,000 public service workstations that require updating under the control of proprietary software. The bill, for licenses alone, is approximately $30 million. "To make the pill easier to swallow, Quebec announced measures at the time to stimulate free software, including the creation of pilot projects in several public organizations," recalls Mr. Béraud. The ministries of Education, Health, Finance and Culture should host these projects. "What we see at the moment, however, is hollow, it's hot air, and it doesn't herald anything very constructive or very structuring," he adds. According to the FACIL association, only the adoption of a digital policy openly dedicated to the development of free software would be able to put an end to all this prevarication. "France has just adopted one in the field of education," says Mr. Béraud. "Quebec would benefit from taking inspiration from it. Free software is described as a priority to deal with the transformations underway in the world of education. That goes without saying. Our relationship with knowledge, with teachers, with places of education is changing. But here, we are still in denial."

## ###ARTICLE\_START### ID:736

Operation successful. On the weekend of April 6, brave activists "liberated" the town of Brocas (Landes), about fifteen kilometers from Mont-de-Marsan. This village of 800 inhabitants was not taken hostage, but since 2011, it has been involved in the open data movement, that is, the promotion of free and easy access to public data of all kinds. This month of April marked the end of a process and a way to give this movement a little publicity. Geography is part of it. The French branch of the OpenStreetMap project was therefore part of the adventure, alongside other players such as Wikimedia (the foundation responsible for developing Wikipedia), Framasoft (promoter of free software), or Regards citoyens (campaigning for the sharing of political information). The digitization of municipal documents (plans, reports, etc.), the collection of archive photos from residents, the inventory of dozens of species in the local flora and fauna and the updating of the local map occupy 60 gigabytes of data, which will soon be put online. For mapping, this is already the case. Paths, streets, shops, recycling points and even divisions of the cemetery or addresses of all the buildings have been integrated into the OSM database. In addition, a paramotor flew for an hour, taking more than 100 aerial photos which were collected (and visible on Tile.openstreetmap.fr). "We can now provide technical services and firefighters with better maps. Our tourist brochure can also be renovated. Finally, for this forest region, it is important to have an image of the different plots planted," explains Jean-Christophe Elineau, deputy mayor of the municipality. Five people have been trained in participatory mapping to continue the work. This rediscovery of heritage has also awakened the desire of the inhabitants to know a little more about the future of a Gallo-Roman fresco taken during the Second World War. "All around us, the initiative intrigues. Other municipalities will surely be interested in it," predicts Jean-Christophe Elineau. Whose turn is it?

## ###ARTICLE\_START### ID:737

Applying Wikipedia and Linux models to projects outside the Internet. This is what Benjamin Tincq, co-organizer of Ouisharefest, the European meeting days between professionals in the collaborative economy that took place in Paris from May 2 to 4, advocates: "The idea is to use the principle of open source for more industrial projects by relying on a federated community." An emerging trend, this use of open source is present in three sectors: engineering, management and design. In the field of hardware, the OpenSource Ecology project stands out. A global community of farmers, engineers and activists who are trying to design the fifty machines needed to found a company. Their assumptions? "Machines are expensive to produce and tools are subject to certain forms of planned obsolescence," explains engineer Jacopo Amistani. This Italian is working on a construction machine project for which he proposes the design and system. Interested Geo Trouvetous just have to download the user manual to build their own machine for 1,000 euros. However, there is one obstacle: European legislation allows for the certification of the design and the system, but the machine manufactured is the sole responsibility of its creator. In the same vein, Alistair Parvin, one of the representatives of Wikihouse, an open-source house construction set, presented this project which is still in its infancy. "In the automobile industry, a community is working on Wikispeed, the first open-source car that would consume less fuel and be more sustainable," announced Benjamin Tincq. According to the latter, this project is also the application of agile management of free software to the industrial world. With this management technique, the emphasis is on a flexible and global product development strategy where a team works as a unit with the aim of achieving a common interest. This is the opposite of traditional techniques based on the sequencing of activities. The final aspect of this collaborative model is its application to the field of design. OpenStructures explores the possibility of a modular construction model where everyone can create their own pieces that can be used to make seats, tables or other design objects. The only constraint is that all the pieces must be compatible with each other, like Lego bricks. It is then up to the Internet user to download the pieces in 3D.

## ###ARTICLE\_START### ID:738

Good news: economic horror is not inevitable. On the contrary, companies capable of compassion are the most capable of overcoming crises. Compassion in business, an oxymoron? The association of the two terms seems totally incongruous. And yet, the subject has fascinated the small world of Anglo-Saxon research for several years. On April 30, the prestigious Stanford University even organized a conference on the theme of "compassion and the business world". With, as speakers, a parquet of academics, but also some prestigious CEOs: Scott Kriens, president of Juniper Networks (computer routers), Steve Luczo, CEO of Seagate (storage solutions), etc. Jeff Weiner, CEO of the professional social network LinkedIn, posted a long article on his personal page in October entitled "Managing with compassion". Suffering. Has compassion (1) become the latest management fad? The famous invisible hand of the market dear to Adam Smith has increasingly violent collateral effects in companies: stress, violence, suffering at work, sometimes even suicide. All to the detriment of productivity. But fortunately, "homo economicus" - this rational being, capable of making the most judicious choices at any moment to maximize his satisfaction - needs to help his neighbor, a colleague in difficulty. Neuroscience specialists have demonstrated that man is not only driven by his personal interest. He also needs to please others, even to relieve their pain. To the point that remaining passive in the face of the suffering of others would considerably increase our dose of stress. Everyone has experienced it: pretending to ignore a homeless person bothers us. Not to mention the malaise that takes hold of us when faced with the distress of a harassed colleague whom we do not feel entitled to help. Acting, of course, is not easy. Listening for hours to a depressed friend or taking on the work of a colleague weakened by grief are rarely enjoyable. But for those who manage to relieve the pain of the person concerned, physiology has provided a big compensation: a massive dose of dopamine injected into our brain structures! Now, this molecule is known by scientists to be part of what they call "the reward circuit". In short, helping makes you happy. In the short and long term. Because living in an environment where you know you can help others without suffering any consequences, but also counting on the mutual aid of your fellow citizens, friends, or colleagues, lowers blood pressure, strengthens the immune system, and increases life expectancy. On a larger scale, compassion is even one of the factors explaining why a human society manages to survive, or not. If its members do not help each other in times of hardship, human groups are simply doomed to disappear. Because isolated, without support, most individuals in pain find themselves unable to overcome obstacles and therefore become burdens for the community, which inevitably declines. However, people experience hard knocks almost daily: difficulty in achieving goals, illness, bereavement, professional or personal failure, etc. "There is always suffering in a room," said anthropologist Peter Frost. In other words, frenzied individualism is not sustainable in the long term. This observation has, for example, given new impetus to thinking about the organization of health systems: facilitating the expression of compassion does not replace human and financial resources, but can help staff cope with the difficulties they encounter every day in hospitals on the verge of a nervous breakdown... Discoveries about compassion are also of increasing interest to sociologists, economists, and political scientists: "In what type of social and political organization do citizens feel threatened, or on the contrary, protected? More united, or at war with each other? Does the level of compassion of social services increase their effectiveness? These are some questions that remained vague and that these discoveries now help to guide," explains Christina Andersson. This Swedish researcher is currently setting up a "sustainable society research center", inspired by Stanford's "center for research and education in compassion and altruism". Reputation. But how can we free this natural compassion that is supposedly in us in societies where the search for personal interest has been pushed to the extreme over the last twenty years? Jane Dutton and her colleagues at the University of Michigan have thought about a concrete practical implementation (read opposite). For Robin Teigland, an American researcher at the Stockholm School of Economics, the Internet offers an interesting avenue outside of existing organizations. "On certain networks, such as OpenSimulator, where open-source platforms for virtual worlds are developed, most of the most active contributors are entrepreneurs. In other words, people whose time is precious, whose objective is a priori profit, and who, however, devote an enormous amount of time to developing programs that everyone, including their competitors, can use for free." These entrepreneurs, of course, find other compensations: a new social network, a reputation, an intellectual challenge, etc. All of these elements are proof that altruism, like compassion, can be compatible with business. For the most reluctant, know that we can also "train" ourselves in compassion. But in our world governed by numbers, the road will obviously be very long... (1) Compassion: from the Latin compatior, "I suffer with". Feeling that leads to pity and to relieve the suffering of others. Drawing Clément Paurd

## ###ARTICLE\_START### ID:739

For SMEs that target consumers, integrating a transactional platform into their website can be a way to reach out to a new clientele. But be careful, the adventure is not without risk. What should you consider and what should you consider if you are thinking of transforming your company's website into a transactional site? Experts share their advice on the subject. 1. Is it worth the effort? According to Stéphane Ricoul, founding president of the eCom Montréal trade show, a transactional platform does not necessarily mean an explosion in revenue. Each retailer must therefore assess whether the operation could be profitable for them by asking themselves three questions in particular. Will there be interest in my products or services online? Are my customers potentially cyberconsumers? Do I have the time and money to invest in another sales channel? 2. Make sure you don't cannibalize yourself: "Before launching, you have to evaluate the place that the sales channel will occupy in your business model," explains Abdelouahab Mekki Berrada, professor of administration and specialist in e-commerce management at the University of Sherbrooke. If I already have a distribution channel, the web has to integrate with what I already have in place and not come to compete with it." 3. Choose your transactional platform wisely: "There are about twenty platforms that work well," explains Abdelouahab Mekki Berrada. The important thing is to choose the one that will evolve with the company. For example, if a platform allows you to sell a maximum of 1,000 products and you think you'll sell 2,000 tomorrow, you obviously have to change options. Among the platforms that I encourage, there is Shopify.com, a paid platform that costs about $200 per month, and Agoracart.com, a free software." 4. Think about mobile interfaces: In the same vein, Mr. Mekki Berrada points out that a growing share of transactions are carried out via smartphones and tablets. "More and more consumers are buying via these interfaces," he says. "And some platforms already offer a mobile component." Here again, you have to go according to your forecasts, according to him. 5. Select an electronic payment module: "Electronic payment modules generally come with transactional platforms," explains the professor from the Université de Sherbrooke. The simplest and most affordable solution remains PayPal; otherwise, there is Desjardins, among others, which offers to integrate a secure payment module into the website." 6. Don't neglect anything, especially not logistics: According to Stéphane Ricoul, launching into e-commerce does not come without risk. "The 'speak well of it, speak badly of it, but speak well' does not apply to e-commerce," he says. "You have to be good, right away." For this reason, Mr. Mekki Berrada emphasizes the importance of focusing on all stages of the transaction, right up to delivery and return policies, by choosing a reliable delivery service. "When all interfaces are equivalent, it is the delivery logistics that becomes a considerable asset," he emphasizes.

## ###ARTICLE\_START### ID:740

In about ten days, in San Francisco, Christian Goudreau will have the opportunity to meet for the first time some employees of his small Quebec-based company, ArcBees. This small firm that creates development platforms for web and mobile applications has 13 employees. It embraces web culture so much that its founder has never had the opportunity to shake the hands of four of his employees, who are from Morocco, Belgium or the United States. "I met them through the free software community," he explains. "I know they are super competent even though I have never met them." A conference organized by Google will serve as a meeting point for Mr. Goudreau and his employees. As well as for some clients that Mr. Goudreau has never met either. ArcBees develops software compatible with Google Web Toolkit (GWT), a toolbox offered by Google to web application developers. Its core software, GWT Platform, is used to build e-commerce sites, for example, and is used by "tens of thousands of people around the world." "That's given us a lot of traction," says Goudreau. But traction doesn't pay the bills, and Goudreau knows that, even though GTW Platform is distributed for free. "I don't see our product as a freebie, but as a marketing campaign," he says. "It's our way of reaching our customers. We make our money by building applications." In short, GWT Platform is a hammer that can be used to build a lot of different things. But to build them, ArcBees' customers need more than just the hammer. They also need the company's expertise and "arms." "We work a bit like consultants. Our employees join our clients' teams, but our goal is to be able to explain to clients how to use the tools well enough that they can become independent. But that almost never happens because their needs are constantly growing and they lack manpower." ArcBees targets two types of customers. First, start-ups that need its help to set up their product. This is the case for an e-commerce site based in Chicago, for example. "We only work with startups that are well-funded, that have money," warns Mr. Goudreau. Then, there are medium and large companies that have already launched software that they are trying to convert into a web application. These often struggle to integrate healthy web development habits, according to Mr. Goudreau. "With a team of eight people, four from us, four from the client, we do the job of a hundred people," he boasts about the work done with a current client.

## ###ARTICLE\_START### ID:741

Since the beginning of April, the Quebec government has been deploying a search engine developed in Quebec, Constellio, a free software that can be used by all departments and agencies. Constellio is an intelligent search engine for businesses developed in Quebec by DocuLibre. The software, which performs the same function as Google, was better known internationally than in Quebec. It has been downloaded in over 120 countries and translated into several languages; an Arabic version is currently in preparation. Constellio allows for searching on the Web and internally (intranets). It allows searching in document banks, network shares, emails, etc. Each organization that adopts the search engine can configure the tool according to its own needs. About a hundred sites of government departments and agencies have integrated this tool so far. This is the largest implementation of free software on a government scale to date, says DocuLibre President Rida Benjelloun. The project, he said in a press release, is the result of the government's new directions in the field of free software, set out by the President of the Treasury Board, Stéphane Bédard. Survey of 400 sites Constellio can survey information contained in more than 400 government sites. The search engine is hosted in a common infrastructure, which makes it accessible to all departments and agencies. "This is a great example of mutualization and pooling of know-how advocated by the law on the governance and management of information resources," Mr. Benjelloun emphasizes. The government pays to install the software on the servers of the Shared Services Centre [CSPQ], after which it becomes accessible to the entire machine." It is planned to soon set up a "free software community" that will allow users to contribute to the development of Constellio. A first software community was created in 2011 around IntelliGID, another DocuLibre software that allows the lifecycle management of electronic documents. Initially, this community included seven organizations, including Bibliothèque et Archives nationales du Québec and the Secrétariat du Conseil du trésor. Today, some 24 organizations are members of the community.

## ###ARTICLE\_START### ID:742

The camp is set up on a piece of municipal wasteland in the so-called "murs à pêches" district in Montreuil, in Seine-Saint-Denis. Along a gravel path, a dozen or so shacks line up, where three Roma families, about thirty people, live. At the back, a large, freshly turned vegetable garden, a row of carefully pruned fruit trees. And right in the middle, a chalet topped with a strange instrument, fixed to a pillar made of salvaged wood about ten meters high: an antenna, made of odds and ends, with a metal box that we can guess once housed a bottle of whisky, and a bit of cheap electronics. This homemade antenna was built by Alex, the camp leader, a vigorous guy in his thirties, with the help of Malin, Constantin and members of his family. Thanks to it, the small community has been connected to the Internet since the beginning of April. Malin demonstrates it in his dark, wood-fired hut. Leaning over a patched-up computer, with the Eiffel Tower as his background, he downloads an application to play videos. It's slow because of the heavy rain that is "interfering with the propagation of electromagnetic waves from the Wi-Fi signal." The explanation is given by the artist Mathias Jud, in gravelly French tinged with a Swiss-German accent. He is, with his compatriot Christoph Wachter, behind the #GLM (Grassroots Local Meshnet) project, working at the interface of politics and art, and of which this antenna is only one manifestation. Overturning stereotypes With #GLM, the two Swiss artists tackle representations of the Internet from a new angle. For them, the Roma camp is a contemporary symbol of exclusion. Pushed to the outskirts of cities, excluded from social life, the Roma are also excluded from the information and communication society, the digital divide reinforcing the social divide. #GLM therefore aims to break their isolation. And more: it stages, at the same time, a possible appropriation by citizens of communication networks and a contestation of their centralized operation. They have been working with the Roma of rue de Rosny in Montreuil for over two years. In the fall of 2011, they met Alex, thanks to the Ecodrom93 association. They then submitted to him the idea of opening a guesthouse in the camp called Hôtel Gelem, in reference to the Roma anthem (Gelem meaning "I have come a long way"). "Faced with the stigmatization and racism suffered by the Roma, we wanted to reverse stereotypes by allowing those who wish to share their precarious daily lives. The travellers are no longer the Roma but the passing visitors who become their hosts. You give what you want for the night and you agree to live with the people, on their terms. “I didn’t believe it,” remembers Alex, who has been in France for twelve years. “I said to Mathias: ‘Who could possibly want to come here?’” However, since it opened at the end of 2011, around twenty “tourists” have spent a night or two at the Hotel Gelem, tasted the dishes of Rana, Alex’s partner, and shared a moment in their lives. Some have returned, touched by their hospitality, as can be read in the spiral notebook that serves as a guestbook. “Hotel Gelem is an interface,” comments Christoph Wachter, “a possibility to communicate with each other and to test our prejudices. This possibility of no longer being an outside observer can be frightening.” The project, which has spread to Germany (Berlin and Freiburg im Breisgau), Macedonia (Skopje) and Kosovo (Mitrovica), received the "cultural event" label from the Council of Europe in 2012, a distinction reserved for innovative artistic initiatives. Ironically, to celebrate the event, a small ceremony was organized in the Montreuil camp on December 7, in the presence of Irène Weidmann, responsible for cultural projects at the Council of Europe. But "the European delegation Manuel Valls had chosen that same day to come to Montreuil and focus the media on his own action." He announced the end of aid for the return of the Roma, the continuation of the evacuation of illegal camps "which jeopardize living together", in the words of the Minister of the Interior, and assistance with integration. "He visited the Emile Zola Street bridge housing units that house Roma families in colorful containers... and surrounded by a fence," say Mathias and Christoph ironically, convinced that there are other solutions than throwing the Roma out onto the street (12,000 in 2012, and more than 4,000 in the first quarter of 2013, editor's note). Circumventing bureaucracy "The Roma always appear as a problem and not as individuals," observe the two artists. Mathias and Christoph discovered the extent of the prejudices in 2010 when, invited to the Bucharest Young Artists Biennial, they proposed setting up an internet café in a Roma village to connect it to the exhibition space and thus give voice to the excluded. The organizers tried to dissuade them, but they persevered, especially since that same year, in France, Sarkozy launched mass evictions. "Those who have no voice, cannot make themselves heard. How can we get past that?" wonder the two Swiss, who refer to Foucault and Rancière, advocates of the voiceless. Their answer will be the #GLM project, launched in the wake of Hôtel Gelem. The goal: to deploy a free communication space that Roma, but also everyone, can appropriate. "We have the impression that everyone has the Internet, but some places are not connected to any network," notes Mathias Jud. "What's more, in France, it is impossible to have access without a bank account and a postal address." To get around this bureaucracy, the two Swiss decided to do without access providers by building a local network. It relies on the free software qaul.net which interconnects computers and smartphones via Wi-Fi to spontaneously form, step by step, a mesh network (or meshnetwork, in the jargon of the Net) allowing to chat and exchange files. In this decentralized communication system, the infrastructure is the stock of communication devices... of which the Roma camp does not lack: "Computers are today's scrap metal. The same goes for mobile phones, thrown away while they still work. It doesn't matter if the iPhone screen is broken, as long as it works," notes Christoph Wachter. Malin shows the old PC tower he has just recovered, after having washed it thoroughly "to get the little creatures out". He asks for advice on the connections, rummages through his drawers overflowing with spare parts and finally extracts a diode. "Mathias, I could also put this so that it flashes when the computer is on." Mathias laughs. “Clever, he’s the king of recycling. He makes all our digital waste work again.” Wi-Fi detector bike The small community then cobbled together a prototype of a “nomadic Internet”: an old restored bike, augmented with four antennas made from metal boxes, a Raspberry Pi (a small computer for 25 euros) and a Wi-Fi key. The whole thing is powered by the battery of Alex’s car. “We’re Roma and we make do with what we have,” says the camp leader. On his strange two-wheeler, Alex crisscrosses the Parisian boulevards: the antennas automatically connect to the hotspots. “We send requests, and each time the bike detects an open Wi-Fi access point, it downloads a little. In the evening, we look at the files we’ve collected,” explains Mathias. The next step is the permanent connection of the camp. The artists look for someone in the neighborhood willing to share their Internet. The Maison populaire, a few hundred metres away, is ready to go. A relay antenna is fixed to its roof: it extends the range of the Wi-Fi to the antenna installed on that of the Hotel Gelem. The Roma's first instinct: to look for YouTube videos of Nicolae Gutza or Florin Salam, Romanian pop stars. "And then also have Facebook and Skype to communicate with family in Romania," says Alex. "Access to the Internet can also motivate those who can't write or read," notes Christoph. The artists have extended their homemade network to two other Roma communities, one in Saint-Denis, the other in Ris-Orangis (Essonne), by installing a relay on the chalet of the "Peruvian embassy" - the support association that has set up in the shanty town. Of this last intervention, all that remains is a piece of "antenna box" recovered after the bulldozers that razed the camp on 3 April. But the "toolbox" is now there, everyone can take it and adapt it to their needs. "A new network can be deployed and build bridges beyond linguistic, political and sociocultural differences," the artists hope. Opening up the field of possibilities, proposing an alternative, can start with a simple tool." (1) #GML, until May 12 at the Gaîté Lyrique. www.gaite-lyrique.net

## ###ARTICLE\_START### ID:743

The terrorist attack on the Boston Marathon and the foiled plot to blow up a train over the Niagara River have highlighted just how powerful police surveillance now is. To the point where one cannot help but wonder what guarantees the state can still offer to our freedoms to move and trade. Threat to our Freedoms: How the Internet Spys on Us, How to Resist is a disturbing scathing article that goes well beyond conspiracy theory. "There is today a militarization of cyberspace in the sense of a military occupation," argues Julian Assange. "When you communicate on the Internet, when you communicate by mobile phone, which is today connected to the Internet, these communications are intercepted by military intelligence services [...]. The Internet, which was supposed to be a civilian space, has become a militarized space." In this essay, which takes the form of a conversation hosted by the creator of WikiLeaks with three other hackers and encryption experts, we explain how the heavy hardware of cyberspace works. We also point out that the data is mainly concentrated on servers located in the United States and accessible on request to American intelligence services. When Russia asked that commercial transactions made with Visa cards on its territory be processed at home, it was told: no thanks. This means, the panelists joke, that when Vladimir Putin buys a vodka, the CIA is able to know where and when, down to the minute! The Apple, Google, Visa, PayPal and other Facebooks of this world have agreed to give access to their data in exchange for immunity in the event of crimes in which they were used as tools. The example of the transmission of communications from BlackBerry to BlackBerry, supposedly confidential, is also cited. According to the panelists, four reasons are always cited to justify increased control of the Internet by police or intelligence forces, four reasons they call the "Four Horsemen of the Infocalypse: money laundering, drugs, terrorism and child pornography." "Their specter is used to denigrate privacy-preserving technologies because there is no doubt that these four groups must be defeated," argues Jacob Appelbaum, an American personality in free software and an independent researcher in computer security. This screen of virtue also protects the economic status quo and stifles innovation. The existing giants enjoy the protection of the state in exchange for sharing information. People therefore become very reluctant to allow new players to enter, as evidenced by the attempts to legislate to stifle certain initiatives in the name of protecting patents or copyrights that no longer belong to their creators. (Several examples are cited in the many endnotes.) This is why the four advocate encryption, an effective way to counter what they see as repression. However, a new difficulty arises: computers are increasingly standardized and difficult to modify. In short, the life of hackers is more complicated than it was a decade ago. In fact, many hackers are now recruited by the military and their mission is to simulate attacks on sites, while others must at the same time imagine strategies to defend these same sites. The four panelists define themselves more as cypherpunks, that is to say, activists who use cryptography and other similar methods as an instrument of social and political change. "A rebellious high-tech elite," Assange summarizes. This elite demands free software and free and open hardware, the only guarantees now, in their eyes, of the free world that the Internet had held out to us at the beginning of its democratization.

## ###ARTICLE\_START### ID:744

“I wouldn’t want to smoke a joint and find myself face to face with him,” said singer Robert Charlebois in front of his wax double at the Musée Grévin in Montreal. The Canadian replica of the French museum opened its doors on April 17, in the presence of television, entertainment and sports personalities, including Bernard Pivot, president of the Académie Grévin. According to Mr. Pivot, Arthur Meyer, designer of the museum and director of the newspaper Le Gaulois, in the 1880s, invented “what we call in bad French pipolisation,” namely “the concept of curiosity for famous people.” By having the designer Alfred Grévin design wax copies imitating the stars, Meyer made possible the “proximity” of the public with the celebrities. The Canadian museum brings together more than 120 personalities, including the navigator Jacques Cartier, the inevitable Céline Dion, Barack Obama and General de Gaulle. A surface area of 2,000 square meters, two years of work, 10 million euros of investment: the museum hopes to welcome 300,000 visitors per year (800,000 for its Parisian counterpart). Next opening: Prague. Warning: explosive economic knowledge All week, the 2008 Nobel Prize winner Paul Krugman and the big names in the economic press have been commenting on the news: the two Harvard economists Carmen Reinhart and Kenneth Rogoff made three serious errors that invalidated their results in their famous article of January 2010 ("Growth in a Time of Debt"), in which they assert that a country's economic growth slows massively when its debt exceeds 90% of GDP (Le Monde, April 19, 2012). Since then, the question has invaded the Web: why was the study, which justifies the European austerity policy, not verified before? The economic blogosphere spills the beans: it appeared in the American Economic Review, a high-level journal that is not required to publish its data. As a result, it has not been criticized, its conclusions have not been the subject of scientific discussion. The site Rationalité limitee explains: "Today, it is rare for anyone to take the time to try to reproduce the results obtained. (...) With the Internet, the results of any study can now be disseminated at a prodigious speed, without anyone taking the trouble to ensure their validity." It concludes: "When they reach the ears of public decision-makers, we can then fear the worst." For their part, researchers who are calling for a new "open source" system of evaluation and access for all scientific articles are grouping together. They argue that the validation of "sensitive" knowledge is at stake. Non-partisan thinking Clean energy versus fossil fuels, solar versus nuclear, geothermal versus shale gas, we are bogged down in futile partisan polemics over energy policies, laments American Michael A. Levi. This energy specialist is the author of a book, The Power Surge, which has already been widely discussed in the United States. He defends a neutral approach to major contemporary problems. Why oppose shale gas when we know that cleaner extraction techniques are coming? Should a climate skeptic oppose the electric car, which will reduce our dependence on oil? Can a Green activist not understand that the energy transition will be long and costly, and that nuclear power remains necessary?

## ###ARTICLE\_START### ID:745

Xavier Hinaut stands in front of iCub, a small humanoid robot standing in front of a table. Enunciating well, he asks it: "Take the cup with the red circle and put it next to the one with the blue triangle." "I recognized it," the robot replies, docile, before repeating the sentence in its synthetic voice, showing that it acknowledges receipt of the message. And adds: "I'm thinking about the situation." It now has to decode its meaning and act accordingly: behavior typical of human intelligence. And that's exactly what iCub is going to do in the cluttered basement of the Robot Cognition Laboratory (National Institute of Health and Medical Research and CNRS), headed by Peter Ford Dominey, an American who has not left France since his doctorate. After a moment of... reflection, which he feigns by blinking, the robot turns its head several times, scanning the objects in front of it. It identifies them by their patterns. Then locates their positions on the table using the sensors integrated into it. Finally, miraculously, the little white robot, one meter high, complies. It deploys its arms, slowly and sometimes clumsily, grabs the cup with the red circle without hesitation and moves it, as requested by its interlocutor, with an articulated hand equipped with a soft grip. "Was that the meaning of your sentence?" it finally asks its teacher. "Yes," replies roboticist Xavier Hinaut. "500 artificial neurons" The robot can thus react to a verbal request because it benefits from a "simplified brain," asserts without hesitation Peter Ford Dominey, who studies robotic cognition and interactions between robots and humans. The eleven researchers in the team published their results on February 1 (1). They made iCub capable of interacting with humans, of simulating language understanding and, above all, its learning. Assimilate new sentences, new grammatical structures, integrate the new through experience and enrich its basic program... like a young human. It has the stature of one, but it is not a 3-year-old child under the thumb of its parents. Its brain, hidden behind its eyes and its face devoid of a mouth, displays "500 artificial neurons" which explain its performances. We are far from the billion neurons of a human brain, but "the number is high enough to produce convincing results", affirms Peter Ford Dominey. Six copies of this humanoid robot with a benevolent appearance, designed and manufactured by Giorgio Metta in Genoa, were distributed to as many labs by the European consortium OpenSource RobotCub. The connections between neurons in close proximity to each other constitute the basis of operation of the artificial neural network. These "recurrent local loops", observed in monkeys and humans, and transposed to iCub, open up as many paths for the circulation of information and constitute a form of memory, exercised as stimuli reach it. If iCub does not yet know how to recognize all syntactic forms, it can learn them. Able to connect two sentences that induce a sequential link between two actions, it is still unable to respond to a request for simultaneous actions such as "move the green cup and the red cup at the same time". This approach - drawing inspiration from knowledge about the human brain by transposing it to robotics - does not stop there. "Based on the prosodic structure to which the human ear is trained from very early childhood", explains Dominey, verbal categorization is another key to the system modeled by the Lyon researchers. It allows the robot to classify words by grammatical type. With this distinction, iCub identifies the syntactic structure (objects, subjects, verbs) of the sentence and generates a construction of its meaning. By referring to its existing data and through a combinatorial process, it succeeds even if the grammatical structure is not known to it at the start. And the algorithms do the rest. A library of sentences is created and expanded over the course of the exchanges, like that of children in a learning situation. "Salami-slicing" of actions As a result, iCub proves capable of a robotic feat: elucidating a sentence of the type "beautiful marquise, your beautiful eyes make me die of love", regardless of the word order. However, reconstructing the meaning requires warning it of the use of a non-canonical language form. To which it responds with a brief "hum... tricky" ("hmm, that's tricky"), before obeying and determining a sentence form with meaning. This learning capacity becomes spectacular in another exercise: helping a human assemble a piece of furniture by holding pieces to be assembled with him. In a demonstration visible on the Internet (2), iCub manages, after repetition, to anticipate the human's gestures. It acts accordingly, in order to accelerate the assembly of the furniture. It thus simulates the ability to predict the action of a partner, a behavior typical of interaction between humans. These demonstrations and publications come from ten years of work on the modeling of a cerebral junction zone known to house the seat of procedural learning. This is where the sequential divisions are understood, a sort of "salami-slicing" of actions into sub-actions, necessary for the realization of a complete and fluid act such as that of language. It was when iCub demonstrated its ability to generalize from an exercise that Dominey's team understood that it had the right end. This ability is indeed at the heart of the ability to cooperate, actively, with a human. Not only to obey explicit orders but also to interact with an environment that is not completely determined. "This was the major obstacle to overcome, this is the subject of our article in Plos One", rejoices Peter Ford Dominey. The android has long been part of science fiction. A fantasy that Philippe Bidaud, director of the Institute of Intelligent Systems and Robotics (Pierre-et-Marie-Curie University, Paris-VI), is wary of: "A fantasy that is not always favorable to research and devoid of realism", he says, noting all the same significant advances in learning mechanisms, the understanding of the sequence of sensory-motor activities and the cortical areas used. For him, humanoid robotics must aim for research and not rapid applications. "Distorting the advances in knowledge" would go against what research needs most: time. The communication efforts deployed in March, at the Innorobo show in Lyon, by Arnaud Montebourg seem, although quite far from scientific reality and its margin of progress, to be going in the right direction. With the France Robots Initiatives plan under his arm, the Minister for Industrial Recovery aims for France "the objective of being among the five leading nations in robotics in the world by 2020". Arnaud Montebourg is already promoting assistance for the elderly or dependent by robots, opening up the prospect of prolonged autonomy for an aging French population, which our societal model no longer knows how to support. But this is forgetting a little too quickly, moderates Philippe Bidaud, that personal robotic assistants must become "reliable systems with reasonable and controlled energy consumption". And despite its progress, iCub is still far from it. (1) Xavier Hinaut and Peter Ford Dominey, on the online publication Plos One. (2) “iCub at the school of humans” on www.universcience.tv

## ###ARTICLE\_START### ID:746

French cloud computing is reminiscent of La Fontaine's fable The Hare and the Tortoise. Cloudwatt and Numergy, the two French on-demand computing companies, partly financed by the State, are starting their activities. They were created in September 2012. But the two companies specializing in cloud computing are not going to compete on the commercial front right away. That will have to wait until the summer of 2013. Numergy, the project that brings together SFR, Bull and the State, started its activity last October. "We made a few tens of thousands of euros in turnover last year, and several hundred thousand euros per month since the beginning of the year," explains Philippe Tavernier, the president of Numergy. For its part, the twin project Cloudwatt, launched by Orange, Thales and the Caisse des Dépôts, is not ready for its commercial launch. "We should start our commercial activity during the summer. "We have already received more than 10,000 requests for the trial storage offer that we have opened," says Patrick Starck, the boss of Cloudwatt. The two cloud players, who will each receive 75 million euros from the State, want to offer French companies remote access, via the Internet, to computers and storage of their data on national territory. A way to offer competing solutions to American service providers, such as Amazon, IBM, Google, Microsoft, Facebook, Verizon and AT&T, subject to the Patriot Act, an American law that requires these groups to provide the data they host in the event of a federal investigation. These players are fighting on the emerging market known as the "public cloud", which consists of the provision of computers and remote storage capacities, shared by several customers. A sector estimated at around 200 million euros per year in France. Other players are rushing into the breach, such as the French OVH and a host of companies from telecom groups (BT, AT&T, Verizon, NTT, etc.) and IT (Toshiba, Fujitsu, Capgemini, Atos, CGI, etc.). Facing them, Numergy offers three commercial offers "which range from 35 to 380 euros per month, depending on the availability rate of the computers and the level of security required", specifies Philippe Tavernier. For its part, Cloudwatt has been refining its offers. Since January, its remote data storage offer, on a trial basis, is reminiscent of the services of Dropbox, iCloud (Apple), Google Drive or SkyDrive (Microsoft) for individuals. Its late arrival on the commercial field can be explained by its technological choices. In order not to be dependent on American suppliers, in particular VMware, Citrix and Microsoft, which publish software to share computer servers (powerful computers), Cloudwatt wants to use so-called "Open Source" programs. These are software that are free to copy and use. By choosing the "Open Stack" system, free software initially designed by NASA and the American group RackSpace, "Cloudwatt wants to control technological developments", explains its president Patrick Starck. The downside of this choice is that, despite Orange making part of its Val-de-Reuil data center in Normandy available, Cloudwatt needs time to design its solutions and test security. Numergy has a more pragmatic approach. For Philippe Tavernier, "the emerging public cloud market in France is set for strong growth. We have therefore decided to launch our offers as soon as possible with VMware software, HP servers and Cisco equipment, using servers made available by SFR in Trappes and Vénissieux." In a second stage, around 2014, Numergy should also adopt free software, like its competitor, and open a data center in Toulouse, on a dozen digital factories in France. "We could also have already started if Orange had simply transferred some of its contracts to us," tempers Patrick Starck. The emerging public cloud market in France is promised strong growth

## ###ARTICLE\_START### ID:747

How could we build a bridge between the long term where there is so much to do (nanotechnologies, "big data", energy transition) and our short term discussions where we only talk about deficits and spending cuts?", asked Véronique Descacq, deputy general secretary of the CFDT, during the debate "Clear the horizon", on March 18 at the Théâtre du Rond-Point. One thing is certain: there are behaviors that must be "cleared" with the same vigor that people have been able to shout "Get out!" to their dictators. Among these behaviors, there is the arrogance of experts. It is essential to move away from a narrow economism and re-examine the metamorphosis of society, the conflicts that accompany it, the common goods that emerge and the modernization of public action. We need to relaunch the debate of ideas to turn the page on this postmodern obsession that has fascinated the French elite for over thirty years and which means that we no longer believe in grand narratives, that we get lost in "storytelling" and that, faced with a change as gigantic as that crystallized by the Internet, we are ready to repeat that the Earth is flat and that we will be able to decipher the future without concepts, in the accumulation of data. But, beyond ideas, how can we provoke a convergence of energies in action, as Jean Monnet was able to do in post-war France? Even more than at that time, we must first allow politicians to hear a different side of the story, by creating the conditions for the expression of forces anchored in reality that are business leaders, employees and professionals through their representatives and their unions. On a European scale, the McKinsey Global Institute has shown that private investment needs to be revived, which has lost 360 billion euros compared to the trend prior to 2008. But what should we invest in? It is the actors themselves who can bring out choices and priorities. Two additional conditions must be met. The first is not to confuse the horizon and the boundaries of the nation-state: we need to open up to what is happening elsewhere, analyze other ways of doing things, and conduct several observation and learning expeditions. The other condition is to give a major role to young people. This imperative is all the greater in the period of change we are living through because the current generation thinks differently. In my generation, that of the baby boomers, we had a vertical conception of social organization: at the bottom, technologies; above, the economy, then society, then culture; for generosity and commitment, it was necessary to climb even higher, into the tower of politics and it is from there that we contemplate the horizon. Today, commitments are of a different nature. Alongside the market economy based on competition, a growing energy is invested in the social and solidarity economy, in empathetic relationships organized around collaboration, in adventures where free has its place. These are certainly emerging trends, but the power of networks means that we are no longer in a simple alternative utopia. Examples such as free software, Wikipedia or what is happening in "open data", show the global scope of what is at stake in collective intelligence. Appropriate methods can make it possible to connect consultation between economic and social partners and this bubbling of positive initiatives that are spreading across the globe. Places will be important, open places equipped with self-service technological equipment that attract talent and feed the concrete imagination of metamorphosis. Alliances between heterogeneous actors are another lever: it is necessary to encourage commitments from several people as the Clinton Global Initiative does, in which large companies, SMEs, social innovators and activists each contribute their skills to achieve specific and measurable social change objectives in two or three years. Innovative mechanisms for consultation, investigation and mobilization are also to be promoted, by launching calls for tenders on the Internet to young volunteers, as the Forum d'Action Modernités has just done with MakeSense. If we break down barriers, if we have confidence in young people, if we get out of the ridiculous positions of those who think they know everything, if we bring together business leaders, trade unionists, associations, social entrepreneurs, each in their own logic but in contexts that open up and inspire, then we will be able to build a bridge between short-term constraints and long-term hopes. All this can be put on track in less than six months. We need to bring together women and men who represent their organizations and are ready to fully involve themselves in the project. Every day, when we meet, the eye must be drawn to the demonstration of a new process, a new possibility. We need to break down silos and move from a multitude of public plans to a few major options for the future. Each month, a public debate will confront the actors, while challenging them with points of view from elsewhere, and in particular artists. Before the fall, with method, we can - in France too - clear the horizon!

## ###ARTICLE\_START### ID:748

T o think he turned 15... Already... » Shock. Your face cannot hide the expression of embarrassment at the irreparable oversight. It was the birthday of one of your loved ones on March 31st. And fifteen days have passed... Incorrigible airhead, yet infused with the umpteenth reminders of countless digital agendas! "Hello, Mozilla, how are you? Hey, I was thinking we could write a little column, just to celebrate?" On March 31, 1998, "Netscape, a company that no longer exists, released the source code of its Web browser. The Mozilla project was born. I fell in love with it right away...", confesses the sentimental Tristan Nitot on Standblog.org. This announcement by Netscape was followed by the manifesto of the Mozilla Foundation and its "community approach to creating free software of global scope and developing new types of collaborative activities." (...) Quite a program! », recalls Olivier Robillard on Clubic.com. The name Mozilla, a contraction of « moz », for « Mosaic », and « illa » (end of « killa », pronunciation in everyday language of killer), is also intended as a nod to the Japanese movie monster Godzilla, first cousin of the mascot of the Mozilla Foundation, a red T. rex. A questionable choice, when we know the fate reserved for dinosaurs, for an organization whose mission is to « preserve choice and innovation ». But, in the digital jungle of Web browsers, Firefox Mozilla represents 23.6% of the European market share, ahead of Internet Explorer and closely followed by Chrome (AT Internet Institute, 2013). For Mozilla's 15th anniversary, the Foundation proposes to celebrate « this anniversary together by taking a look at the work accomplished to make the Web better » (bit.ly/153aN0o). With each candle, a significant event. Remember, on the day Firefox 1.0 was released in 2004, "more than 10,000 contributors expressed their support by chipping in to buy a full-page ad in the New York Times." Remember, in 2008, in a single day, more than 8 million people chose Firefox, setting the world record for the most downloaded application in twenty-four hours. The 15-year-old has a network of "contributors on every continent, including Antarctica," has "more than 3 billion modules already downloaded," has a DNT (Do Not Track) feature to limit online tracking, and, more recently, an OS for mobile platforms. "I'll see you in fifteen years to celebrate its 30th anniversary," writes Christophe Villeneuve on Webriver.eu. On my calendars: “Create event” for March 31, 2028. With alert? Better twice than once.

## ###ARTICLE\_START### ID:749

The upheaval of the video game world is scheduled for June 4. On that day, the general public launch of the Ouya, a console designed on Google's Android smartphone platform, will revolutionize the rules of the game as they have been decreed until now by the industry's leaders, console manufacturers and major game publishers alike. In any case, that's what observers and many players are hoping. Game creators from all directions, greedy testers of still hesitant alpha versions, or simply lovers of unusual and bizarre games, they all will find in the Ouya a single console that unites them, they prophesy. It will be their first escape from the closed world of terminals signed by Sony, Nintendo or Microsoft. And the best chance ever offered to indie games to expand their audience. The announced revolution was launched ten months ago from California, when Julie Uhrman, an American veteran of the video game industry, presented the project on the private funding platform Kickstarter. With $8.6 million (€6.6 million) collected from more than 63,400 individuals, the Ouya was the subject of the second largest fundraising on Kickstarter. Designed by the most famous Swiss resident of San Francisco, designer Yves Béhar, the small console, as silent as its price is light ($99), was shipped to its investors at the end of March during the Game Developers Conference held in the Californian city. The concept of the Ouya is remarkably simple. The console, also a game creation platform, is accompanied by a catalog built on the same principle as the app store for Android smartphones. With one requirement: free, at least partial, games. Creators are free to innovate on the economic model front. The recommendation algorithm is based not on the number of downloads, but on player behavior. Particularly in terms of game launch priority, frequency and duration of sessions. Critics have pointed out a problematic time lag between the manipulation of the controller and the action on the screen. A problem that will probably be fixed, but which is a stain... And skeptics argue that the great uncertainty weighing on the future catalog of games of the Ouya is certainly a source of excitement for developers, but constitutes a serious obstacle to the success of the console. In fact, the Ouya is delivered to the goodwill of an eclectic community of unpredictable geeks and players jaded by the ultra-realistic visual prowess of the so-called "AAA" games produced by the giants of the industry. The only certainty: whatever happens, the big video game publishers like Electronic Arts, Ubisoft or Activision Blizzard have nothing to worry about. On the contrary, they have everything to gain from the arrival of a new open source console that will be able to unearth the talents and tastes of the public that their big commercial machines have not been able to detect.

## ###ARTICLE\_START### ID:750

A lot of water has flowed under the bridge since the Canadiens last won the Stanley Cup in 1993! It was the birthplace of the Internet and the inventor of Facebook, Mark Zuckerberg, was nine years old, barely finishing his second year of elementary school and already knew how to do math like a pro, let's bet on it. Here are some random facts that allow us to see that 20 years ago, it was a completely different time... In a trade with the Los Angeles Dodgers, the Montreal Expos acquired a promising young pitcher named Pedro Martinez, in return for second baseman Delino DeShields. Jean Chrétien became the 20th prime minister in Canadian history. His election marked the beginning of a 13-year reign in power for the Liberal Party of Canada. The source code for WorldWideWeb entered the public domain, making WorldWideWeb free software. It was also in 1993 that the first web browser supporting text and images was developed. After leading the Chicago Bulls to a third straight NBA championship, Michael Jordan announced his retirement to try his luck in major league baseball. Already very popular in France and the United States, Quebec singer Céline Dion seduced the rest of the world following the release of her album The Colour of My Love. At Wimbledon and the US Open, American tennis player Pete Sampras won the second and third major tournaments of his career. In total, he would win 14. At the beginning of the year, regular gasoline sold on average 59.5¢ per litre in Montreal while the national average was 53.8¢ per litre. Steven Spielberg's Jurassic Park becomes the highest-grossing film in history at the box office, surpassing ET's 11 years earlier. The International Association of Athletics Federations bans Canadian sprinter Ben Johnson from competition for life. At the height of his powers, Pittsburgh Penguins forward Mario Lemieux is forced to take a break from hockey after learning he has Hodgkin's disease. The Montreal Casino officially opens. Claude Mouton, the Canadiens' longtime house announcer at the Montreal Forum, dies of pancreatic cancer at age 61. Jean Charest becomes leader of the Conservative Party of Canada. Quebec raises the minimum wage to $5.85 per hour. The Ottawa Senators, who have the first overall pick in the draft, set their sights on Quebec's Alexandre Daigle. As for the Canadiens, they used their first-round pick to draft Saku Koivu. French race car driver Alain Prost won the last of his four Formula 1 world championship titles. For the first time in Super Bowl history, ratings increased during the halftime show, which was performed that year by Michael Jackson. The band Les Colocs won four Félix awards, including Discovery of the Year, at the traditional ADISQ Gala. Quebec City submitted its candidacy to the IOC to host the 2002 Winter Olympics. Former Canadiens players Guy Lapointe and Steve Shutt were inducted into the Hockey Hall of Fame.

## ###ARTICLE\_START### ID:751

Quebec has just adopted two decrees favouring the multinational Microsoft in the updating of several thousand computer workstations in the public sector, but also allowing public bodies to award IT contracts to a dozen large IT groups, without a call for tenders or putting their products in competition with free software. This measure was, however, described as "transitional" by the President of the Treasury Board, Stéphane Bédard, who says he wants to continue to support the free software industry, a "technological choice and an economic choice", according to him. As Le Devoir announced at the beginning of the month, Quebec is therefore moving forward by renewing for one year decree 1111-2011, which governs the awarding of contracts by mutual agreement in the IT field. This decree, which expires on March 30, is to the advantage of 10 companies, including Microsoft, IBM, Oracle, Adobe and Symantec, and allows them in certain circumstances to circumvent the rules of competition in a call for tenders. It was adopted by the former Liberal government and was roundly denounced at the time by the opposition, formed by the Parti Québécois. In addition, Quebec is adopting another decree for the updating of 76,000 public service positions, without a call for tenders, with software sold by Microsoft. The total bill is 30 million, for the licenses alone. This exceptional measure aims to "ensure the security of our positions", but also to maintain continuity in the service delivered to the population, indicated Mr. Bédard Thursday during a press conference held in Quebec City. The President of the Council was keen to specify, however, that these measures were "transitional". "We are not yet ready to make the transition [to make a little more room for free software in the government apparatus]", he indicated. "We will ensure that this competition develops in the future so that we can go to tender." While confirming the adoption of these decrees, Quebec nevertheless reiterated its intentions to support the development of the free software industry, but also to make more room in the public service for these systems, whose usage costs are generally lower than their so-called proprietary equivalents. Mr. Bédard also announced the appointment of Patrick Di Marcantonio, director of IT architecture for government services and a civil servant openly in favor of free software, as head of the Centre d'expertise en logiciel libre. His arrival at this centre, whose vocation is to make the adoption of free software concrete in the public service, was welcomed favorably by the defenders of this other way of designing public information systems.

## ###ARTICLE\_START### ID:752

QUEBEC - The Marois government is awarding Microsoft, without a call for tenders, a $30 million contract to upgrade the 76,000 computer workstations in departments and agencies. It is also extending by one year a Liberal decree that it denounced in opposition and that favours multinational computer companies to the detriment of free software. These are "transitional measures to allow time for the gradual introduction of free solutions," stated Treasury Board President Stéphane Bédard yesterday. On Wednesday, the cabinet adopted two decrees related to computer contracts. The first provides that the government will purchase operating system and Office suite software from Microsoft for the 76,000 computer workstations in departments and agencies. This purchase will cost it $30 million, but additional expenses of approximately $50 million will be necessary, particularly for training. Many systems in the public service depend on Microsoft technologies, explained Mr. Bédard. He added that the multinational will stop providing technical support for Windows XP and the Office 2003 suite in April 2014. "I noticed it when I arrived: we were not ready to make this transition" to free software right away, he said. Private contracts The second decree aims to extend the one adopted by the Liberals in November 2011. It allows for the conclusion of private contracts - and not by call for tenders - with ten suppliers (Adobe, IBM, McAfee, Microsoft, Novell, Oracle, Red Hat, SAS, Symantec and VMware). Quebec plans to purchase around ten million dollars worth of licenses over the next year under this decree. Stéphane Bédard has already announced the creation of a "centre of expertise in free software". "What we want is to ensure that in a few years, we will have the competition needed to go to tender in the renewal of technological choices", "to have real competition", he maintained. Many shortcomings Last November, the Auditor General denounced many shortcomings in the management of IT service contracts: poorly prepared calls for tender, contracts awarded for a sum higher than the accepted bid and even billing at rates higher than those stipulated in the contract. He noted the lack of competition. For 17 of the 38 contracts analyzed, there was only one compliant bid. On average, there were only two acceptable bids per contract. "Free competition is not really being exercised", said the Auditor General. Three firms won 46% of the billion IT contracts awarded by all departments and agencies in 2009-2010 and 2010-2011, he noted. These are the LGS Group, CGI and DMR (a division of Fujitsu).

## ###ARTICLE\_START### ID:753

The word victory was probably shouted too quickly. In June 2010, the hearts of free software defenders in Quebec were in celebration following the unequivocal judgment rendered by the Superior Court in the case that, for two years, had pitted the company Savoir Faire Linux against the Régie des rentes du Québec (RRQ). In his judgment, Judge Denis Jacques ruled in favor of entrepreneur Cyrille Béraud, who denounced the awarding without a call for tender of an IT contract to the American multinational Microsoft without the public body having taken into consideration so-called free software solutions. An "illegal" gesture, and even inconsistent given the potential positive effects of this type of software on public finances, the judge had then considered. In the process, he forced the government to put free software and proprietary software in competition in the future when renewing its so-called information resources. In the name of the common good. "This judgment was decisive," Cyrille Béraud told Le Devoir this week. "For the first time, the issue of free software was brought into the public arena. The progress made since then has been very positive. Theoretically, the values carried by free software seem to be well understood in society, but from a practical point of view, when it comes time to make room for it, we are still far from the mark." Role of "pariah" Indeed, while loudly asserting the need to support this type of IT tool, among other things with the adoption in the wake of the June 2010 judgment, of Law 133 on the management of government IT resources, which now forces competition between free and proprietary software in calls for tender, Quebec has, on the other hand, put in place several exceptional frameworks maintaining free software in its role as "pariah." Thus, in 2011, the Liberal government of the time adopted a decree to circumvent this law and award contracts without a call for tender to multinational proprietary software companies, including Microsoft, Oracle, McAfee, and IBM, thereby de facto excluding "free software". The decree, which expires on March 31, will be renewed by the current Parti Québécois government, which had criticized its adoption when it was in opposition. What's more, public bodies regularly invoke section 13 of the Act respecting contracting by public bodies, which allows a contract to be awarded to a single supplier "in the name of the public interest." This invocation is often done at the expense of free software, even if this interest "is not always justified," summarizes Daniel Pascot, president of FACIL, the Association for the Appropriation of Free Software and professor at Université Laval. The plan to renew operating systems and office solutions in more than 720,000 government computer workstations by 2014-2015 is a good example, according to him. Quebec says it is under pressure, claiming that many of these software programs should no longer be technically supported by their manufacturer, Microsoft, by 2015. "This is an alarmist portrait of reality, which is also reminiscent of the speech we gave as the Y2K bug approached," said Mr. Pascot. "We are in the process of dramatizing a necessity, and this will once again lead us to make bad decisions." The Bédard plan At the beginning of last week, however, Quebec gave signs of its desire to ward off fate a little. How? By seeking to stimulate free software and the industry that drives this software, but also by facilitating the entry of free software into the government apparatus, announced Stéphane Bédard, President of the Treasury Board. His plan includes, for example, the creation of a Government Centre for Free Software, the implementation of flagship projects in the departments of Education, Immigration and Finance, the implementation of a call for tenders open to free solutions for the overhaul of government email systems, but also the identification of administrative obstacles that hinder the introduction of free software into the government's technological ecosystem. To better eliminate them. "Ensuring an increased presence of free software is a nice phrase," Mr. Bédard told Le Devoir, "but making this project a reality is another thing. There are barriers that need to be removed and that is what we are going to try to do. Up until now, we have left these issues solely in the hands of managers and that is getting us nowhere. It is the old approach, which has not produced results that we can no longer maintain." The update of the government's report on IT and the architecture of its digital components was presented by Mr. Bédard as a way to also stimulate the creation of an industry and expertise in free software in Quebec driven by "SMEs in an emerging sector," here and elsewhere in the world. "It pays for a society to have strong companies in the free software field," he said. It was also met with skepticism by free software advocates who saw it as a "smoke screen" aimed at diverting attention from the renewal of an anti-free software decree. While waiting for the next real victory, they believe. "Free software has already won," says Cyrille Béraud, "because it is much more than a technical issue. It is also an organizational revolution that contributes to the construction of an economy based on sharing and collaboration, which is in opposition to the classic and hierarchical model of organizations, which accompanies the arrival of the Internet, the end of the energy cycle based on oil and which above all contributes to the transformation of capitalism," a transformation that is currently animating debates all over the planet. "Free software prefigures the major political battles that are emerging between classic economics and more transversal economies, and that is why the issue is political and why it is generating so much resistance," he concludes. \*\*\* What is free software? Appearing in the 1970s at MIT in the United States, free software stands out from its proprietary cousins because its computer code is open to everyone. Thus, it is legally and technically possible to duplicate it on as many devices as desired, to modify it, to change it and to share these modifications with others. Proprietary or proprietary software does not allow this type of modification and sharing. Its use is also linked to a paid license, and it is part of a closed environment in which generally only the owner of the software and its suppliers can interact. "Today's information networks are diverse and complex," says Daniel Pascot, professor of computer science at Laval University. "They also call for flexibility in systems and the pooling of resources that proprietary software does not allow. By continuing along this path, the government is perpetuating a solution from the past," he adds.

## ###ARTICLE\_START### ID:754

The Marois government's decision to award Microsoft the contract to upgrade hundreds of thousands of computers in the public service in 2014 without a call for tenders seems illogical both technically and economically. But, above all, it contradicts a formal commitment by the Parti Québécois (PQ) in 2011 in favour of free software, whose programs can be used, studied, redistributed and improved by the client. The Minister responsible for Government Administration and President of the Treasury Board, Stéphane Bédard, announced a few days ago the creation of a centre of expertise in free software to develop the use of this management tool in government agencies and departments, as well as "flagship projects" in some departments. However, Quebec is renewing a two-year-old decree to entrust Microsoft and other "proprietary" software giants with the renewal of government workstations, which could represent an expenditure of $1.4 billion. The PQ, which has been supporting free software for three years, now believes that the deadline is too short to adopt this technological tool before the contract for technical support for the current operating system expires in April 2014. However, operating free software would be up to ten times cheaper than privately owned software. This tool would offer users the advantage of reducing their dependence on multinational products, better controlling their information systems and adapting them to their needs, while reducing the cost of purchasing licenses and upgrading. Cyrille Béraud, president of Savoir-faire Linux, maintains that not only is free software less expensive, since it is available on the Internet and is used by several states and companies, but that it "constitutes a major challenge for the modernization of the Quebec state and the renewal of the link between citizens and the administration", as well as for the knowledge economy and the creation of highly qualified jobs. Obviously, not everything is black and white in this area, and some fear that in the event of major IT problems requiring an urgent solution, companies will find themselves deprived of rapid and adequate technical support. Beyond these technical considerations, it is the question of the cost of a new contract with large IT firms that most irritates the opposition parties, particularly the Coalition avenir Québec, and undoubtedly many taxpayers faced with cutbacks in various services and organizations and rate increases. Furthermore, in the middle of the Charbonneau Commission, the awarding of such a contract by mutual agreement can only create a certain unease among the population. It is therefore very difficult to follow the Marois government in this matter, especially when we remember that his own party adopted a proposal at its 2011 convention to open IT calls for tenders to free software, estimating that such a measure would save the government tens of millions of dollars! The PQ even returned to the charge less than a year ago, while it was still in opposition, to ask the Charest government to "seriously consider the option of free software in its plan to renew IT positions in the public service." It would undoubtedly be irresponsible for Quebec to proceed unilaterally. But the fact that this government is preparing to spend hundreds of millions of dollars without a call for tenders for large IT firms and that it is ruling out free software, while it urged the previous Charest government to opt for this solution, shows a lack of coherence or real will.

## ###ARTICLE\_START### ID:755

Sad announcement? On March 13, Alain Green announced on the official Google Reader blog the death of its RSS feed reader, scheduled for July 1. The Mountain View firm justifies a necessary "spring cleaning". "We know that Reader's loyalists will be very sad to see it disappear. We are just as sad," writes the compassionate Mr. Green (googlereader. blogspot.fr). According to Google, the success of its RSS and Atom feed aggregator, released in October 2005, was fading, nibbled away by competition and, mainly, social networks. Time passes, tools and functions die. But usage would like them to persist. This is what New Yorker Dan Lewis, author of the petition for Google Reader to continue its merry e-path, means. "Please don't destroy our trust," the pixel-footed colossus prays, punctuating his remarks with a hard-hitting "Don't kill Google Reader" (chn. ge/WHCSGU). More than 136,000 Internet users have supported his credo, adding to Google's clemency. But the sentence will be handed down, to the great displeasure of Reader supporters, who will be forced to migrate to other feed aggregators. The only consolation is that Google is giving its Reader addicts three months to export their feeds, lovingly accumulated over the years to ensure accurate monitoring. It's up to them to resign themselves to following its "data liberation program" (bit.ly/10i5TJg) and its Google Takeout. My "first steps with Google Reader" (bit.ly/WV7pSH) are a long way off. This early retirement has, it is said, caused an "RSS exodus" to Feedly, which admits to having, in the 48 hours of this disastrous announcement, garnered more than 500,000 loyal Google Reader users (bit.ly/16JlTXM). "How to survive?" asks Korben (bit.ly/ZKpM9R). "Of course, there is a lot of shouting in the cottages! All the monitoring enthusiasts already see themselves on the street," he explains, doubtful as to the deep reasons for this sudden decision by Google. "We are not in the head of the multi-colored octopus," he concedes. As for believing that Google could make its service open source, he does not mince his words: "It's a new pope who has just arrived at the Vatican, not Santa Claus." What fallback position? No point beating around the bush, we need to adopt a new aggregator. The Commencamarche site. net provides a non-exhaustive list: Netvibes, Feedbooster, Newsblur, FeedReader, Pulse.me and, in desktop versions, Feeddemon, Rssowl, Omea Reader, Flipboard, Reeder and Feedly. The "RSS feed aggregator comparison" from socialcompare.com (bit. ly/ZdjQUq) or that of CaddeReputation (bit.ly/15qOCgs) will not be a luxury.

## ###ARTICLE\_START### ID:756

The most important free software is published under the General Public License (GPL), administered by the FreeSoftwareFoundation (FSF). These include, among others, the Linux operating system and the main free office suites, OpenOffice and LibreOffice. With the GPL, any person or company redistributing either the original version or a modified version of the software must also apply the GPL. However, the GPL is written in English and it is out of the question that a translation of the GPL could be valid. Indeed, according to the FSF, other languages risk compromising the freedoms of free software and it is better to remove from non-English speaking users their right to understand a legal text to which they are bound, under penalty of "consequences [that] could be disastrous for the entire free software community". They can only fall back on translations that are good enough for them, but not good enough to have legal value. The FSF adds that "as long as these translations are not official, they cannot do any harm". As a result, a Quebec company doing business with the Quebec government, with another Quebec company or with any Quebec citizen must provide free software with a distribution license written in English. Far from being limited to Quebec, this problem potentially affects the entire non-English speaking population of the planet. Do I need to remind you that 95% of the inhabitants of the Earth do not have English as their mother tongue?

## ###ARTICLE\_START### ID:757

"Nothing is really being done to open the government market to free software, which is known to be much less expensive," said Christian Dubé, CAQ spokesperson for public finances. According to him, Quebec's intention to renew decree number 1111-2011, decried by the Parti Québécois when it was adopted two years ago, "confirms that hundreds of millions of dollars will be spent in the coming days without a public call for tenders and without a vision in the file of renewing workstations in the Quebec government," he said, while demanding that the Treasury Board tell taxpayers how many of these workstations could be updated in line with free software, not subject to costly user licenses. In April 2014, the operating system and office suites of most government computer workstations, currently under the control of Microsoft, will have to be renewed. The exercise will represent an expenditure estimated at nearly $1.4 billion, according to documents obtained by Le Devoir in March 2012. Mr. Dubé reiterated that he was in favor of extending the decree, which favors multinational proprietary software companies through private contracts and which therefore excludes free software from government calls for tender. This decree expires on March 31. However, according to him, this gesture must be accompanied by the granting of a greater number of contracts to the free software industry. Quebec says it wants to move in this direction by announcing the creation of a government center of expertise in free software, but also by implementing flagship projects for technological change in the ministries of Culture, Finance, Education and Immigration.

## ###ARTICLE\_START### ID:758

QUEBEC CITY - QUEBEC CITY -- While rumours suggest that it will award the contract to upgrade its computers to Microsoft, without a call for tenders, the Marois government intends to develop its expertise in the field of open source software. The President of the Treasury Board, Stéphane Bédard (photo), yesterday unveiled a series of measures aimed at acquiring cutting-edge expertise in this type of software and increasing its use within ministries and public agencies. "The government firmly believes in the benefits of open source software," Mr. Bédard said in a press release. "[It] represents both an essential option for public agencies and a business opportunity for many companies. In short, it pays off for Quebec." Among the measures announced, the government will create a Centre d'expertise en logiciellibre (CELL) whose "mandate will be to develop cutting-edge expertise in order to support public agencies in the development of solutions based on open source software." The CELL will begin operations on April 1. Quebec also intends to involve ministries and organizations that have already implemented initiatives using free software solutions.

## ###ARTICLE\_START### ID:759

CAQ MNA Christian Dubé fears that the government will hand over the migration of more than 700,000 computer workstations to new software on a silver platter to IT multinationals. A $1.4 billion stake. "What I suspect is that the government is unfortunately still tying its own hands," Mr. Dubé said yesterday. The desire of Treasury Board President Stéphane Bédard to set up flagship projects in various departments to promote the use of free software risks being nothing more than "show-offs," according to him. If the decree that allows the obligation to consider free software in calls for tenders to be circumvented is extended, it must not encourage "wall-to-wall" in Quebec's IT infrastructure, he urges. "A fair balance" between "proprietary" and free software would be wiser, suggests Mr. Dubé.

## ###ARTICLE\_START### ID:760

SHERBROOKE - Since Shawn Young put the World of Classcraft game online for his students at the Salesian Seminary, teachers abroad have shown interest in the platform he developed. The game, whose theme is similar to Dungeons & Dragons, allows students to collect points and obtain certain powers, by focusing on collaboration between them. "The idea is to make the actions we do fun anyway," explains the Salesian physics teacher, who is also a lecturer at the University of Sherbrooke. "The students have different roles, and depending on that, they can have different powers." "What is rewarded in the game is collaboration, participation. The course is set up around an internet forum. If they help each other in the evening on the internet, they are rewarded. They gain experience points and by having these points, they level up. They get better powers, like being entitled to a grade sheet for an exam, an extra day to do work. For the students, these are real gains." At the same time, the students have "life points": if they do bad things, they suffer "damage" like in video games. For example, if a student is mean, he loses points. Since he put World of Classcraft online, thousands of people have visited the site. Teachers from the United States and Germany have contacted him. He wants to develop an open platform, which will allow other teachers to play with their class. He will also launch an online fundraiser to make his project a reality. "There is a craze that goes far beyond the Salesian, and even Quebec," he comments, emphasizing that social networks have undoubtedly contributed to this popularity. His game does not depend on the subject that is given; anyone can play it. The game could be adapted for primary school, for example. "It is around the code of life and what is expected of students," he specifies. The platform allows the allocation of points to be managed by computer. A history teacher at the Salesian, Éric Demers has developed an educational activity based on free software, which allows students to found their own colonies themselves. "I use it to pass on elements of my subject." Throughout the process, which spans a large part of the school year, the students represent a country, for example the colonial powers. The teacher says he uses the tool to see concepts that can thus become more concrete. "There are clearer concepts, like commercialism," he illustrates. The young people do research based on the simulation. "The fact that it's interactive, it's very dynamic." The two teachers were able to see the beneficial effects of their initiative. Shawn Young believes that his game promotes learning through increased motivation. "I have students who hadn't done anything all year, who were failing, who started working like machines because they wanted points." A mastery test allowed him to anticipate interesting results from the game he created. "It was about online collaboration. When I made this game, I made it so that the students would work together. There are lots of mechanisms that promote this collaboration. All the powers that could be harmful to the classroom climate have been ousted..."

## ###ARTICLE\_START### ID:761

Treasury Board President Stéphane Bédard will force the use of free software to free the Quebec government from its dependence on IT multinationals. Year in and year out, Quebec buys more than a billion dollars in information resources. But the policy that requires public bodies to consider purchasing free software, tabled by Michelle Courchesne in 2010, is circumvented. Often by decree. "Politicians have to hold the reins and hold the horse because, otherwise, it will naturally go elsewhere," Mr. Bédard told Le Soleil yesterday. Quebec will announce today the establishment of a Centre d'expertise en logiciellibre (CELL) for April 1. Composed of about twenty civil servants, its mandate will be to support organizations that use free software. The centre will also be a place to exchange expertise on the subject. Some departments will be forced to use free software to set up certain "flagship projects." Free software is software that can be used, modified, reproduced and distributed free of charge, as opposed to the limitations of "proprietary" software. The Quebec government's computer equipment is largely made up of software from the giants Microsoft, Oracle, McAfee, IBM, Adobe and Symantec. When the government decides to acquire "proprietary software," its future purchases are conditioned by the obligation of compatibility. "We are often prisoners of their technology, even if it is good," says the President of the Treasury Board. "Changing it costs more. A call for tenders automatically gives them an advantage. [...] To get out of this, we need greater competition and use of free software. We need to break the current framework." The minister hopes that in 2015, free software companies will have the same chances of winning calls for tenders as the giants. In the meantime, the CELL will offer consulting services to public bodies and will set up tools and infrastructures to promote the use and knowledge of free software. Its annual budget will be $4 million, taken from the funds allocated to the Shared Services Centre (CSPQ). "We must allow free software companies to emerge and develop a significant turnover," says Mr. Bédard. [...] Our dream is that they are able to prepare themselves because I am convinced that the market is heading in that direction." No sudden turn The President of the Treasury Board wants to proceed in stages. Give the technology time to prove itself. No sudden turn. Even if the decision has "not yet been made," everything indicates that the decree that allows the obligation to evaluate free software in calls for tenders to be circumvented will be renewed in a few weeks. But the projects requested by Quebec are "a step for free software," he says. This opening will not happen without a certain normal and understandable resistance to change among civil servants, predicts Mr. Bédard. "The easy way is to fall into what you know best," he notes. "It takes strong leadership from the top for it to work." In October 2012, the Secretary General of the Executive Council, Jean Saint-Gelais, authorized the CSPQ to purchase 800 Microsoft licenses and 1,400 Exchange licenses without a call for tender, judging that this "would not serve the public interest" because of the "urgency" of the updates. France, Brazil and Norway are among the governments that are banking on free software.

## ###ARTICLE\_START### ID:762

Paradoxically, this legislative project appears at a time when Quebec announced this very Tuesday the creation of a Centre d'expertise en logiciellibre (CELL) to stimulate the integration of this type of digital system within public bodies. Two things that should not be brought together, indicated however in an interview Monday the Minister responsible for Government Administration, Stéphane Bédard. Adopted by the Liberal government in November 2011, the decree in question authorizes all components of the State, through the Shared Services Centre, to award IT contracts without a call for tenders to large companies such as Microsoft, Oracle, McAfee, Symantec or Adobe. This decree makes it possible to circumvent the Act respecting contracts by public bodies, which nevertheless requires these bodies to put this software, linked to costly user licenses, in competition with free software, whose code is open to all. The exceptional measure expires on March 31. At the time, Marie Malavoy, now Minister of Education, had indicated in our pages that Quebec was "being taken for a ride with this decree." "We're not going to be able to put an end to it all at once," Stéphane Bédard, also President of the Treasury Board, admitted on Monday, on the sidelines of an announcement about the measures taken by his government to stimulate the free software industry in Quebec. This decree "will be renewed, but we're currently looking at how to mark it out." However, Mr. Bédard assured Le Devoir in an interview that he did not want to harm free software, the use of which is spreading all over the world because of the savings it generates in public funds. He even indicated that he wanted to create an environment conducive to its proliferation in the future. "We need to initiate a paradigm shift, a cultural shift," he said. "I am convinced that free software can be profitable for Quebec and I am going to push very hard on that." A center of expertise With this in mind, Quebec is setting up its center of expertise, "to think about, lead and create IT solutions based on free software," he said. This body will offer public bodies consulting services for the use of free software. At the same time, Quebec will launch "flagship projects" to demonstrate the merits of the change. The ministries of Education, Finance, Culture and Immigration have agreed to push for it. Finally, Quebec wants to "quickly" identify the "administrative mechanisms that hinder the use of free software by the public administration," said Mr. Bédard, in order to better counter them. For the free software industry, which has been actively campaigning for five years to breathe new life into the civil service, the measures announced by Quebec, as well as the renewal of the decree, will not help Quebec "catch up on the nearly 15-year delay it has taken in the face of" this type of software, commented Cyrille Béraud, president of the Fédération québécoise des communautés et des industries du libre. He added that "80% of the Internet runs on free software that is also used in avionics, transportation and by other governments. Meanwhile, here, we are still doing pilot projects, but also making inconsistent decisions on the other hand that will maintain dependence on proprietary software for another ten years."

## ###ARTICLE\_START### ID:763

Montreal - The Quebec government will announce today the creation of a "centre of expertise" in free software, but is still preparing to adopt a new decree that will allow it to award Microsoft the contract to upgrade hundreds of thousands of government computers without a call for tenders. Quebec will once again invoke "urgency," since technical support for the Windows XP operating system and the Office 2003 office suite will end on April 8, 2014. However, according to the government, it would take much more than a year to change platforms and switch to free software. Last fall, the government had already adopted a decree to allow its nerve centre, the Ministère du Conseil exécutif, to award Microsoft and other American computer giants a $500,000 private contract for the renewal of Windows, Office and Exchange (email) software. At about $2,000 for each of the government's 700,000 workstations, it could cost Quebec at least $1.4 billion to upgrade to Windows 7 and Office 2010. According to a government document obtained last year by the daily La Presse, 10 percent of the sum will go to hardware, 19 percent to Microsoft for licenses and 71 percent to technical support and training. In the hope of making the pill easier to swallow, Treasury Board President Stéphane Bédard will commit to setting up a "centre of expertise" of about 20 people to educate senior civil servants about the benefits of free software, The Canadian Press has learned. The minister will also announce "pilot projects" that will promote free software. During a telephone interview yesterday, Cyrille Béraud, president of the firm Savoir-faire Linux and the Fédération québécoise des communautés et industries du libre (FQCIL), welcomed the creation of a centre of expertise, but deplored its modest size. Mr. Béraud also denounced what he called the "lack of courage" of the PQ government in this matter. According to the FQCIL, Quebec could save hundreds of millions of dollars by opting massively for free software, as several other governments around the world have already done.

## ###ARTICLE\_START### ID:764

But I also believe that our era is about to make this notion of the public domain take a qualitative leap. It is no longer a question of believing or not in free circulation. The model of culture as an industry, which has organized and shaped the arts and literature for the last fifty years, is currently entering a period of irremediable decline, supplanted by a new model that could be called "collectivization of culture", that is to say the hasty, voluntary or not, pooling of works of art for all, without the industry being able to close the floodgates that have opened. Collectivization takes several forms. To denigrate it, we stick to the piracy of music, films, and TV series. Piracy, it is said, is a theft that deprives artists of the income to which they are entitled. But from the point of view of collectivization, the question of the morality of piracy is secondary compared to this formidable displacement that an anonymous horde is making to the products of mass culture, dragging them into the field of the collective where everyone can consult them at will, outside the industrial apparatus in which they were created. But the question of piracy cannot sum up the phenomenon of collectivization on its own. The open source movement, the Creative Commons license, this inexhaustible desire to share one's own videos and images for free, as well as the desire to criticize and remix culture, are less problematic legally, because they are anchored in our inalienable freedom of expression. How can a literary critique hidden behind the paywall of a major daily newspaper make a work better known than a free critique posted on a blog? Whether we like it or not, collectivization is the horizon of our time. Decapitating Literary Power As far as literary creation is concerned, it seems that the economic apocalypse (the econopocalypse!) that the cultural industry has experienced over the past fifteen years of collectivization is beginning differently. Because the economic catastrophe (the econostrophe!) caused by the rapid collectivization of music seems so far to be limited to bestsellers, that is to say, to the fringe of literary production that is most integrated and central to the book industry. While Aquin, Blanchot and Guyotat are still almost impossible to find, on the other hand, the complete novels of Frédéric Beigbeder, Michel Houellebecq, Bernard Werber and Paulo Coelho can be found and downloaded in just ten minutes (it's the coelhopocalypse!). What could this possibly mean? Perhaps, in the end, there is something to be happy about in the collectivization of literature. Everyone has known for years to what extent the commercial dynamics to which the book industry is forced has become a cancer for literature, without anyone having found until now what to do to clip its wings and promote the emergence of a healthier ecosystem for the future of our literature. The novel, as a form, is bloodless. It seems to have definitively lost the vitality it once demonstrated. But it nevertheless continues to represent the only serious (i.e. profitable) form for the book trade network. Fortunately, the novel still has its followers, so numerous that they will be ready to relentlessly collectivize media successes, until the collapse of commercial structures. That is why we, the horrible haughty conspirators of the complicated highbrow text and pop formalism, adore them: the readership, this public harnessed to the book industry, loves too much, and it will continue to be enthusiastic about bestsellers until the idea of a bestseller is stifled. These hordes of readers are the unwitting and unconscious agents of a revolution that seeks to decapitate the economic power that gives this commercial literature its power and visibility and that, paradoxically, are leaving more or less intact both the canon of more difficult modern works and the whole of this current small production that passes under the commercial radar. After the collapse But what will remain after the collapse of culture as an industry? It is still early to say, but I already see a resurgence of interest in minor forms, which reappear regularly in literary history. The resurgence of practices similar to the witticism, the aphorism, the allegorical tale or the chronicle best summarizes, in my opinion, our era, because it is this type of content that increases the number of visits to blogs and of strictly literary interventions on social networks. I can spend several hours a week reading this kind of apparently light content, but often carrying a more relevant meaning to ask the questions specific to our time than that of most of the novels that I scan with real boredom in bookstores. And, here is the best part, these texts are resolutely the product of this collectivization movement: they are immediately accessible and designed to be shared, exchanged, commented on. But, but, but... If collectivization destroys the commercial apparatus of the book, if it collapses the financial structures of literature, how will authors be able to earn a living? Where will they find the money and especially the time to continue writing? The question remains open and will probably remain so for years to come before a new figure of the author emerges as an actor in economic life, if that ever happens. In any case, the best-seller industry has long since made most authors marginalized from the capitalist system, and we survive on subsidies and grants without knowing how much longer this will last. For my part, I make t-shirts, and the shop is open. Mathieu Arsenault

## ###ARTICLE\_START### ID:765

With The Ethics of Hackers, the brand new Globe editions offer a new generation of computer enthusiasts the opportunity to witness the emergence of a culture that has shaped their vision of digital technology. No one has yet translated Hackers, Heroes of the Computer Revolution by Steven Levy, a monument to the culture of computer geeks, first published in 1984, then updated and reissued in English in 2010. Steven Levy, editor-in-chief of Wired , traces in some 500 pages the birth of a community that elevates screens and keyboards to the rank of an art of living and theorizes its code of conduct. The misused term "hacker", today translated as computer pirate or hacker, actually refers to a group of adventurers, "tinkering programmers", eager to manipulate machines to better understand and improve them. Always pushing the limits of the impossible, such is the credo shared by Bill Gosper, Richard Stallman (two hacking celebrities), Steve Wozniak (one of the founders of Apple) and Mark Zuckerberg (the founder of Facebook). Since the 1950s and the appearance of the IBM 704 computer at the Massachusetts Institute of Technology (MIT, a leading American university in new technologies), the ideals of hacking seem to be set in stone. Openness, sharing, "do-it-yourself", free access to information and distrust of authorities are all precepts at the heart of hacking culture. This image of Epinal contrasts with the bad reputation of these coding virtuosos. "They reject any person, any physical obstacle or any law that would prevent them from achieving their goal", concedes the author, which regularly places them in illegality. However, Steven Levy does not hold them responsible for this reputation and places the blame on cybercriminals who falsely claim to be hackers. The real ones are limited to "hoaxes" and "raucous jokes," he writes. It is regrettable that the author avoids questioning the ambivalence of these talented "tinkerers." His book sounds like a plea, where we expected a more historical-political-sociological study of this little-known and largely mythologized community. Meeting the young Steve Wozniak, sneaking into the famous "Kluge Room," a mecca of hacking at MIT, watching games of SpaceWar, one of the very first video games... This is where Steven Levy projects the reader. Built around three major periods, the book delves into the bowels of the machines. The first hackers of the 1950s and 1960s made free information the absolute ideal; Their successors sought, in the 1970s, to miniaturize and democratize access to computers, while the 1980s saw the official entry of hackers into the corporate world. Throughout the pages, the reader witnesses, in the MIT workshops, the genesis of revolutionary innovations, which have become so present in everyday life. The aridity of the lines on coding techniques, program algorithms or historical details bear witness to the investigative work and quality interviews carried out by Steven Levy. Passionate, he even embellished his 2010 reissue with an analysis of the new generation, embodied by Mark Zuckerberg. Quoting the American writer Stewart Brand, Steven Levy intends to pay tribute to "the most peaceful of the 1960s subcultures, [which] turned out to be the most innovative and the most powerful". A tribute that is now classic.

## ###ARTICLE\_START### ID:766

March 15, 2013 marks the second anniversary of the war in Syria and the first anniversary of the illegal detention of Bassel Khartabil, a Syrian computer scientist born in 1981, in the Palestinian Territories. His arrest is believed to be linked to his professional work developing free software, according to the Gulf Center for Human Rights. Bassel Khartabil has worked for over a decade to build a free Internet and teaches how to use open technologies to many local project leaders, journalists, publishers, entrepreneurs and teachers. He is known (and recognized) internationally for his important contributions to projects such as Creative Commons, Mozilla Firefox, Wikipedia, the Open Clip Art Library, Fabricatorz and Sharism. Amnesty International has launched a solidarity action and his colleagues are organizing Free Bassel Day, an online campaign around solidarity events in cities around the world, from Paris to San Francisco. In December, Foreign Policy ranked him 19th on its list of 100 global thinkers of the year, and cybercitizens launched a fasting chain, each choosing a day on an online calendar to fast until his release. As a champion of the free and open Internet, he was nominated to receive the Digital Freedom Award in London from the Index, an organization that defends and promotes free speech. A few weeks before his arrest, Bassel Khartabil wrote under the name Bassel Safadi: “People who are truly in danger never leave their countries. They are in danger for a reason and for that reason they do not leave.” The Syrian regime wants to stop the movement for free software and the free Internet, which are nothing other than the belts for the transmission of knowledge, innovation, creativity, and a greater democratization of free culture. This movement is today one of the only guarantees for an effective preservation of our fundamental freedoms of expression and communication, real shields against the totalitarian temptations of certain States and, more broadly, against anti-democratic excesses. Bassel must be freed. Among the signatories: Danièle Bourcier Cersa CNRS University of Paris-II Camille Domange Cersa CNRS University of Paris-II Primavera De FilippiCersa CNRS University of Paris-II and Open Knowledge Foundation France Mélanie Dulong de Rosnay ISCC CNRS and Isabelle Ramade University of Paris-XI (teacher-researchers members of Creative Commons France) Philippe Aigrain, Félix Tréguer and Jérémie Zimmermann La quadrature du Net Véronique Ginouvès, Lionel Maurel and Jean-Christophe Peyssard Librarians, members of Savoirs communs. Committed to freedoms on the Internet, read: http://freebassel.org/#francais

## ###ARTICLE\_START### ID:767

"A more sensitive society" Elsa Francès, director of the biennial "The choice of the theme of empathy is the result of an intuition and a collective reflection. Perhaps in a period when we are in need of utopia, at a time when society claims to be built on a single principle of reality, could empathy be a bearer of hope for a more sensitive and attentive community? Understanding the feelings and emotions of another: this notion is relatively absent from design teaching even though it is the thinking of this discipline. And empathy has a remarkable investigative force. Are other readings of the world possible than the hypertechnical ones that are offered to us? Perhaps, and this is the hypothesis that I formulate!" "If I were a doorknob?" Adrien Rovero, Swiss designer, scenographer of four exhibitions "A designer responsible for scenography of exhibitions must imagine himself in the place of the curators. I referred to the film Being John Malkovich! Is there a half-floor in Saint-Etienne that would allow you to slip into the heads of the curators? For the visitor, in the EmpathiCITY exhibition, eleven cities will be found on a single bench, like a unifying element. For the content, if I were a doorknob, how would I like to be presented? What particularity would I like to show? What type of light to highlight? I am looking for precision and the right balance between an effect produced and its implementation. " "We are not in front of a wall" Matali Crasset, designer and curator of "Nano-ordinaire" "When I chose the profession of designer, I quickly broadened the notion of function, by defending new rituals for daily life. For the "Nano-ordinaire" exhibition, I worked with Paul-Louis Meunier, my scientific emissary whom I met at Thomson. To find another kind of empathy in the domestic setting. Without presenting objects or materials. To fight against what we cannot control, such as energy, which is managed centrally. Find the ferments to be autonomous, experience the little things by reversing paradigms. "In the past, an electric blanket brought comfort by consuming energy. What if a blanket made of new fibers recovered body heat during the night to use it after the day, while being energy efficient? We are not in front of a wall. We must expose design as a potential, see the resources of a house differently, to also consider exchanges with neighbors." "Exploring the bizarre" Alexandra Midal, design critic and curator of "Dream Team" "I am revisiting the concept of Design Empathy, by the architect Richard Neutra, friend of Sigmund Freud's son. He forged this notion after observing Freud's furniture and the way he used it to encourage free association in patients. Arriving in the United States, Neutra considered a cure linked to design, in a behaviorist vision. I remain faithful to psychoanalysis, but I explore the question of the unconscious, hypnosis, extreme emotional outbursts. Not design linked to the norm and functionality. "With five departments of European schools (1), I discovered a young generation that claims the power of emotions, the dimension of the bizarre. Example: Beam Me Down or Self-Inducing Amnesia, by Sitraka Rakotoniaina, cause partial amnesia, as the brain naturally reacts to protect itself from trauma. Beam Me Down empties the air from the lungs, causes dizziness and causes temporary memory loss. This temporary state, which could seem so unempathetic to some, is virtuous, because it allows the unconscious to engage in necessary work in the face of the trauma encountered. It protects against emotional shocks that are too intense." 1) The Royal Academy of Antwerp, the Royal College of London, the Sandberg Institute of Amsterdam, the Head of Geneva, and the School of Art and Design of Saint-Etienne. "A small factory of encounters" Designers Grégory Blain and Hervé, exhibition "la Manufacture" "We design sober and simple objects, leaving the possibility for the user to appropriate them. For the biennial, we are organizing an exhibition with our association Greenhouse. We are setting up a small factory of plaster objects that will then be sold to visitors. We invite around fifteen artists and designers to respond to this project to bring together those who create, produce, and those who use." "Japanese steps, ricochets" Mathilde Brétillot, designer, collective Particules 14, exhibition "l'Age du faire" Design is no longer just "fuel for industry". Its challenges also lie outside the market, to the point of questioning the evolution of our lifestyles and especially our aspirations. Today, all the alternative offers of a new generation are guided by proposals for collective survival. Design is reassuming its primary function: "Why and how, in what form?" Empathy is the ability to listen, understand others and respond to them through objects that are intermediaries between those of the past and those to come. For the exhibition "The Age of Doing", I designed Japanese steps, these small stones that allow us to cross, to go towards each other, to choose a direction. Between the story of Tom Thumb and ricochets on water." "Being more critical" Sebastian Bergne, London designer, curator of "Design With Heart" "I don't practice empathy consciously, I try to design objects that will be appreciated by both companies and the people who will use them. With the same difference between pop music produced to make a hit and music that will be a good song and will become popular. ""Design With Heart" is my selection of empathetic objects. And if it can encourage people to be more critical, to better choose their personal objects... I present both a kitchen knife and the Olympic torch from the last Olympic Games. The first will be judged on its precise function and its imperfection. The other is a symbolic object with a large audience, linked to a global sporting event." "Preventing the dangers of the world" Claire Fayolle, design historian, curator of "Tomorrow is today" "This is the fourth edition of the exhibition "Tomorrow is today". Its goal is to see how companies, designers, schools, research labs envision the future. Empathy - the basis of design - can be seen with collaborative projects, in open source on the Net. Like the 4x4 Rally Fighter by Jay Rogers and his community of Internet users, the American start-up Local Motors. "The food issue is very present, like the consumption of insects in its psychological dimension. How can we convey this idea in the West? Empathy also involves critical objects that warn of the dangers of the world: a vase that blocks all waves, allowing you to turn off your cell phone in a restaurant, an ostensible sign of a conviviality to be found again. Or an English proposal that would be a sort of profiling of a family, of its emotional states, anticipating a depression, for example. "A number of projects denounce these seductive tools that become too intrusive or make us captive to consumption. They seem empathetic, they are not." "Getting a smile is a function!" Benjamin Girard, from the Design Project agency, curator of "Vous veux rire?" "Design is becoming too serious, it forgets humor, which has a decried status in France. If an object is funny, it is considered a gadget. As if humor erased the function! It is also a function, like getting a smile! Humor can be a mediator. For example, the Besançon town hall, to encourage people to stop throwing their chewing gum on the ground, offers games, such as targets where they can throw these chewing gums. More than an injunction, this has reduced the dirt by 50%. "The exhibition "Do you want to laugh?" is taking place in the austere concrete church of Le Corbusier in Firminy. With the 5.5 designers, who do the scenography, we respect the place, without gags. We approach the theme of function with a trash bag in the shape of a Teddy Bear. Communication, with Monoprix, where on a biscuit box it is written: "Finally a box where everyone can enter." Joking around is useful in the face of the ambient paranoia, taboo subjects, societal issues. We show a birdhouse that is also a surveillance camera. Design must make fun of itself. We present a waffle iron that makes small pieces of furniture, because we are also fed up with this profusion of objects, of "eating" design."

## ###ARTICLE\_START### ID:768

The Wealth of Networks: Markets and Freedoms in the Age of Social Sharing, by Yochai Benkler, PUL, 2006. The example of free software opens the way to a "system of production, distribution and consumption of information characterized by decentralized individual actions disseminated massively by non-commercial strategies and means." Digital Labor, The Internet as Playground and Factory, edited by Trebor Scholz, Routledge, 2009. The social actions of Internet users are the oil of the digital economy. Communication is a mode of production facilitated by new capitalist imperatives. It has become difficult to distinguish between play, consumption and production. Wikinomics: How Collaborative Collective Intelligence is Upsetting the Economy, Don Tapscott and Anthony D. Williams, ed. Pearson, 2007. "Wikinomics" suggests that companies draw inspiration from Web 2.0 models (such as Wikipedia or Linux) around four ideas - openness, collaboration, sharing and action on a global scale.

## ###ARTICLE\_START### ID:769

In an internal analysis, Daniel Pascot, president of the organization, deplores the "waste of the few resources" of universities "in bad IT decisions." The man, a professor of computer science at Université Laval, cites as proof the large sums invested each year in software and systems based on so-called proprietary software, and therefore linked to significant user fees paid to American multinationals. According to him, these bills could be considerably reduced by advocating free software in universities, whose open computer code is not subject to this same type of license. With the key, adds Mr. Pascot, savings that benefit the financing of the primary function of universities: teaching. Savings of $650 million Based on the cost of Université Laval's study management system alone, the academic and activist for free software estimates that the five major universities in Quebec will pay the licensed software giants $650 million over ten years. However, much of this money could be invested elsewhere, provided that the call for free software is answered. Furthermore, he points out that $500,000, a sum generally paid sometimes for a single proprietary software or system deemed indispensable by educational institutions, is equivalent to "60 courses (at the price of a lecturer)". For FACIL, it is not technical constraints that prevent universities from understanding this type of software, but simply a "closed mind" and a traditional conception of computing that now harm their ability to take full advantage of the keys to the digital present. "Our universities [and the Ministry of Education] live in technological obscurantism in the face of the rise of the digital revolution", writes Mr. Pascot, who is surprised, at a time when the government is timidly beginning to open up to free software, to see universities so far from a project of which "they should have been, according to their mission, the driving force". And he adds: "For those who are sensitive to the common good that is knowledge and to the roles that free software plays in it, this is scandalous." Last spring, in the midst of the social and university crisis linked to the increase in tuition fees, a consortium of free software players in Quebec had already called on Quebec to share the potential savings linked to greater use of non-proprietary software by the public administration. According to them, the money saved could have reduced by 50% the amount of the increase envisaged by Quebec at the time.

## ###ARTICLE\_START### ID:770

Although peer-to-peer still exists, Internet users may be less willing to share their files, for fear of falling foul of the law or being monitored. The Pirate Box guarantees the freedom to exchange freely and anonymously, without being constantly spied on by Web spies. Placed in a public place, the Pirate Box creates an autonomous network around itself. People looking for a Wi-Fi network see the icon "Pirate box, share freely". When you connect to it, instead of the Internet, a skull appears in the browser. And offers to chat anonymously, to download documents, music or videos, or to upload your own files. The Pirate Box does not include any tools to track or identify users. "If someone with bad intentions, or the police, seizes the box, they will never be able to know who used it," claims its inventor, David Darts, head of the Art department at New York University. The tool, easy to build and use, fits in a metal school lunchbox. Inside, a Wi-Fi router, a USB key and a battery, all running on open source software. David Darts has posted a guide online to build your own box, making his software available for free. A whole community of geeks has since honed his mobile communication system, miniaturizing it or adapting it to transform a laptop, smartphone or USB key into a Pirate Box (for around 40 euros). Some are already dreaming of creating a parallel network made up of a series of interconnected Pirate Boxes. http://daviddarts.com/piratebox/

## ###ARTICLE\_START### ID:771

TELECOMS Is the world of mobile telephony on the verge of a major earthquake? That is what the promoters of Mozilla, a non-profit foundation that developed Firefox, the famous Internet browser, want to believe. In Barcelona, during the major mobile telephony trade show, Mozilla announced the launch of Firefox OS, its smartphone operating system. An operating system is the software that acts as a sort of "engine" for a smartphone. Two players dominate this field. On the one hand, Google, which with Android holds more than 70% of the global market, and equips in particular Samsung Galaxy smartphones, Sony Xperia and LG Optimus. On the other, Apple, which has developed its own system (iOS) for its iPhones, which represent around 20% of the market. With Windows Phone, Microsoft is also trying to break into mobile telephony, but for the time being, its market share does not exceed 5%. Barely more than BlackBerry. The latter two seek to shake up the hegemony of Google and Apple in smartphones... A role that Firefox would also like to take on. Mozilla has a simple strategy to achieve this. It wants to democratize access to smartphones worldwide with low-cost terminals. Thus, the Chinese Huawei, ZTE and TCL (under the Alcatel onetouch brand) as well as LG have announced that they have offered or will offer smartphones running Firefox for less than 100 dollars (80 euros) without a subscription. 2 billion people A price that can be a dream compared to the smartphones at more than 500 euros that are multiplying. Of course, Firefox is free software, the manufacturers who use it do not have to pay royalties. But the price difference comes first from the terminal itself. The one presented by ZTE is very simple. Here, no brushed aluminum, no 4G, no high-performance camera or HD screen. This is the Logan of smartphones, the manufacturer has gone straight to the essentials. In addition, manufacturers can hope to play on the volume effect. Mozilla aims to do nothing less than "connect the next two billion people". An objective that primarily targets consumers in emerging countries who, for price reasons, do not have access to smartphones. "We are also targeting people who want to switch from a simple mobile to a smartphone, without having to spend a lot", specifies Tristan Nitot, manager at Mozilla "for the moment, smartphones running Firefox will not be distributed in Western European countries, except in Spain". The foundation also wanted to make a simple operating system, inexpensive to develop, which allows access to the entire Web, without necessarily having to buy applications. Which does not prevent it from wanting to quickly offer its application store. Mozilla then plays the telecom operator card. It benefits from the support of eighteen operators worldwide, mainly present in emerging countries. The latter resolutely support any initiative likely to shake up the Apple/Google duopoly. Firefox OS in particular allows them to bill their subscribers directly for purchases made from their smartphone. This function is particularly aimed at people who do not have a bank card.

## ###ARTICLE\_START### ID:772

A project by Swiss artists Mathias Jud and Christoph Wachter, Qaul.net lays the foundations for a second communication network, completely independent of the Internet and telephone operators. "There are no more servers, clients or routers, each participant in the Qaul.net project is everything at once," explain the authors, currently in residence at the Gaîté Lyrique in Paris, whose project is based on "mesh" networks. The software interconnects computers, smartphones and other mobile devices via Wi-Fi to form a spontaneous network, from one user to another, allowing the exchange of text messages, files or voice calls. Qaul.net is distributed "like a virus", from user to user. When you connect to it via a Wi-Fi signal, you access the software, in open source, to install. You can use it immediately and pass it on to others nearby. The network works like a Chinese telephone of computers, where each is both a user and a relay. For optimal operation, a relative density of participants is required. Qaul is an Arabic term meaning opinion, speech, or word, it is pronounced like the English "call". The two artists Jud and Wachter imagined this tool following the Egyptian blackout, during the Arab Spring, when the authorities cut off access to the Internet for eight days, and other precedents in Burma, Tibet, or Libya. Winner in 2012 of the "next idea" prize awarded by Ars Electronica, Qaul.net can also be activated in the event of a natural disaster or to bypass an Internet threatened by government regulation attempts and restrictions by access providers.

## ###ARTICLE\_START### ID:773

But who said that today's youth were no longer getting involved? Certainly not the witnesses of the last "SenseCamp" organized in Berlin by MakeSense. For a year, this international community has been helping social entrepreneurs solve their problems (presenting a reusable bottle, improving the distribution of organic products, helping mothers in need to make clothes, etc.) during brainstorming sessions. In 2012, 8,000 volunteers mobilized around 200 projects with a social or environmental scope, rejoices Christian Vanizette, co-founder of MakeSense. A concept already well developed in Germany, where Berlin is one of the most dynamic places for the community. There were nearly 200 of them - social entrepreneurs, designers, programmers, freelancers or engineers - at the last gathering organized in the German capital, two weeks ago. What motivates these volunteers, half of whom are still students? Solving the concrete problems encountered by social entrepreneurs in terms of marketing, sales or mobile applications. SenseCamp participants become "gangsters" who organize "hold-ups", these festive brainstorming sessions where innovative ideas are the loot that everyone can and must appropriate. Over pizza and drinks, solving a "challenge" is a game that knows how to stay serious. No tedious organization, everything goes through the Internet via Facebook, Twitter or the platform makesense.org. At 30, Daniel Hires, a Berlin freelancer specializing in marketing, is one of the oldest "gangsters" in the community. Interested in sustainable development, he meets entrepreneurs at parties organized in bars. Daniel wants to "change things, not through politics, but through a new way of doing business, of thinking about the economy, while keeping the fun side of the community". Each of the participants is ready to share their skills, their network and, above all, their inventiveness. With open source as its founding principle, MakeSense is a community that ensures that its findings circulate. The experience thrilled Trent zum Mallen, creator of the Aakaash project, a platform designed to facilitate fundraising for foundations. In Berlin, he asked for advice before launching his mobile application: "It lasts two hours and it's a feast for the eyes. There's no blah blah, no bad ideas. I was missing this condensed thinking on design or marketing." The entrepreneur has come up with new ideas: "It's amazing to see how quickly they managed to take ownership of my project and improve it." And that's just the beginning. The community recently launched a mobile application designed to facilitate exchanges between its members. In the coming weeks, it will organize tours to meet social entrepreneurs in Europe and countries bordering the Mediterranean, with the idea of quickly expanding its family of "gangsters."

## ###ARTICLE\_START### ID:774

In France, companies and individuals spent nearly 300 million euros in 2012 to equip their computers with antivirus software - a useful precaution, since hackers are increasingly active and resourceful. However, these purchases are worsening the trade deficit, since the antivirus market is entirely in the hands of foreign companies - American, Russian, Japanese... In the hope of remedying this situation, France has launched a joint public-private project with the aim of creating the first 100% French antivirus. It has been provisionally named Davfi (demonstrator of French and international antiviruses), while waiting to find a more attractive name for it. The project is being led by a consortium of three IT companies (Nov'It, Qosmos and TechLib) as well as the DNCS (a warship manufacturer in which the State is the majority shareholder) and the Cryptology-Virology Laboratory of the ESIEA engineering school in Laval, headed by a former intelligence officer. The consortium is working in conjunction with the Ministry of Defence and the National Agency for the Security of Information Systems (ANSSI), and is partly financed by the State, in the form of an advance of 5.5 million euros from the future investments financed by the large loan. If all goes as planned, the companies will repay the State over five years, once the product is marketed. Davfi will be free software, which can be validated, controlled and improved by experts around the world. It will be free for individuals in all countries, while the more comprehensive versions for businesses will be chargeable. The presence of public authorities in this affair is massive, because the problem of antiviruses is not only commercial. For Jérôme Notin, head of Nov'It and coordinator of the project, it is above all a question of national sovereignty: "An antivirus has access to all the data contained in the computer and, to function, it constantly exchanges information with the publisher's servers installed abroad. However, current commercial software is locked, and the data flows are encrypted. The client knows nothing of what is exchanged and controls nothing." For individuals, this is not very serious, but for administrations or strategic companies, the problem is real: "We know, for example, that American computer security companies have close ties with federal agencies such as the FBI and the NSA [military intelligence]." Furthermore, Jérôme Notin states that current antiviruses are of poor quality: "Their design has not changed for ten years, while the virus creators on the other side have made a lot of progress. » As a result, customers are less and less protected, and computer espionage cases are multiplying. The latest, discovered at the end of 2012 and called operation "Red October", is said to have affected the administrations of around twenty countries on three continents - United States, Russia, Brazil, Africa, Middle East... After three years of efforts, the first 100% French antivirus should see the light of day in 2013 for smartphones and tablets running Android, Google's operating system: "Android is an open system, recalls Jérôme Notin, its code is freely accessible, which makes our work easier." Davfi has opted for the radical solution. The system pre-installed on the device will be erased and replaced by a "hardened" version of Android, with in-depth security: "We also removed useless stuff, specifies Jérôme Notin. For example, modules collecting certain personal data. » To perfect its system, Davfi will create its own application download service, based on the model of Apple's iTunes - but smaller. "We will only offer apps that we have checked and validated and that we have, if necessary, cleaned by removing certain functions. Obviously, this will limit the choice, but devices for professional use do not need to be stuffed with unsecured fun apps. For example, the game Angry Bird collects players' geolocation coordinates. What for? It's nonsense." The consortium is also preparing an antivirus for Windows, but it will not be finished before the end of 2014. According to Jérôme Notin: "With Microsoft, everything is slow and complicated, we have trouble obtaining the information we need. In fact, at the moment, we are mainly trying to optimize our relations with them. In any case, Windows 8 is very closed, we will not be able to intervene in depth. » We will have to be content with adding antivirus modules without touching the pre-installed system, a less satisfactory solution than that used for Android. That said, Jérôme Notin says he is convinced that the era of "Windows everywhere" is over, including in business, and notes that Google has recently distributed a version of Android for PC. Despite their desire for independence, French researchers remain dependent on their relationships with American Internet giants. Eventually, Davfi plans to produce an antivirus for servers running Linux. On the other hand, for Apple devices, there is no point in trying, because the company refuses to provide the necessary information. Last point: Jérôme Notin swears that if foreign countries adopt Davfi, they will not have to fear being spied on by France, because the operation of free software is transparent.

## ###ARTICLE\_START### ID:775

Inspired by the success of the XXI magazine, the quarterly We Demain includes in its new issue (February issue) a manifesto for the future. Signed by 104 civil society actors: elected officials, entrepreneurs and associations - including Corinne Lepage, Green Cross France, Eco-Emballages, etc. -, this text aims to outline a project for the future. "Yes to clean energy, yes to the sharing economy, yes to participatory democracy", we read. We Demain is dedicated to the ecological hopes and economic opportunities of the "blue economy" (100 million jobs). Blue, in opposition to the red of the industrial era and the green of sustainable development. The blue economy seeks to transpose the prowess of nature to the industrial scale. Taking inspiration from the climatic system of termite mounds, purifying water by reproducing the perpetual movement of rivers and growing mushrooms in coffee waste. For Belgian industrialist Gunter Pauli, interviewed by We Demain, the future of humanity is hidden in the stripes of zebras and the silk of tropical spiders. In two years, the sector has seen the birth of 2,000 companies, representing 50,000 to 60,000 jobs. A promising start for this specialist in organic products, who is very critical of sustainable development: "In the green economy, you need a lot of money to do not do good, but the lesser evil. This is not serious!" "Succeed in the transition to 21st century society", hammer home the magazine's founders, Jean-Dominique and François Siegel (sons of Maurice Siegel, creator of VSD) in their manifesto. Rejecting conventional pessimism, they seek to draw another, more enthusiastic vision of progress and growth: "circular economy", "energy transition" or "co-revolutions"... We Demain loudly proclaims its ecological identity and praises the merits of "community innovation workshops", the "open source car" and "electric whales" (the whale's organism generating its own electricity). The editorial is in the same vein. However, We Demain defends itself from any dogmatism in its pages which offer quality articles beautifully illustrated... Fans of exotic reports will not be disappointed. The magazine invites them into the Swedish kitchens of Fäviken, a few kilometers from the Norwegian border. And the menu of the chef, Magnus Nilsson, may surprise them. Scallops cooked in a wood fire on a bed of juniper mousse, slice of fillet of culled cow meat on crispy reindeer lichen... 25 dishes, inspired by traditional Scandinavian gastronomy. Magnus Nilsson (28 years old) is the gourmet ambassador of the 10th commitment of the manifesto, that of "local agriculture that does not destroy the environment". We Demain falls into the category of book-magazines (mooks) alongside 6 mois, Usbek et Rica, Ravages, Feuilleton, L'Impossible, Believer... On the shelves of bookstores, the titles jostle each other. So, to exist, the hybrid quarterly relies on an eco-societal positioning. We can regret its messy cover. The quality of the reports is poorly served by the monotony of the formats (portraits, short articles or photo reports would have been appreciated). We can also fear that this "manifesto for tomorrow" will freeze a promising journal in a conformism of the time. Regrettable for a journal that aims to shape the future.

## ###ARTICLE\_START### ID:776

Who decides on investments in information resources in the Quebec government? Not elected officials, it seems. I do not doubt the goodwill of our politicians, but so far all the commitments and fine words have been for nothing. What progress has free software made in government? Almost nothing, according to Henri-François Gautrin. Because there is enormous resistance. Who decides, then? Can we talk about non-decision? We are told that the "real reality" is too complex, change too risky, in short that the system decides for us. Here is how it happens. Suppliers constantly lobby (their marketing budgets can exceed 80% of sales) their customers. Who are these customers? Not the public, who mandated the government. In IT, customers are specialists, who operate in their own space: the administration. Suppliers, technicians and their administrative and political decision-makers form a small, closed, impenetrable world that escapes citizen control. This dynamic has the effect of isolating and controlling investment decision-makers and their employees, to the detriment of pooling. This system is the opposite of the way it works with free software. "With" and not "from" free software, because free software is something that suppliers and customers share, which is totally foreign to the current system. We cannot hope to benefit from the contributions of free software without changing the system. Replacing proprietary code with free code will only provide marginal improvements that are quickly called into question by the system. There will be no real change unless politicians become the decision-makers. And we can help them become so. The full version of this text is available at: facil.qc.ca Daniel Pascot President of "FACIL, for the collective appropriation of free computing"

## ###ARTICLE\_START### ID:777

QUEBEC CITY -- "It is false and erroneous to mention that I am involved in any way in any matter between the government and Microsoft." That is what Éric Leduc said, who returned the call from the Journal last night. "I have been an activist since 1998. I am involved in the PQ for my personal convictions. My role at Microsoft is a completely different story," he explained, adding that people who were upset by his position at Microsoft never told him so out loud. Regarding his intervention on free software in 2010, he specified that he wanted the Parti Québécois to ensure that a free software strategy could reduce costs for the government. His amendment had also been defeated. He indicated that no activist intervened at the time to ask him not to speak out since he worked at Microsoft. "My role on the PQ national executive is essentially about policy, political strategy, and the implementation of the platform. We have nothing to do with the government's administrative decisions," he continued. "Éric Leduc has been an activist for 20 years. He is in the party because he believes in sovereignty and he believes in the Parti Québécois. He has proven himself that he is not there to exert influence for Microsoft," said Shirley Bishop, director of communications in the premier's office. PQ activists also defended Mr. Leduc's integrity, indicating that he had the right to have computer skills and to be a political activist. Some believe that Mr. Leduc can give his point of view, just as Cyrille Béraud, a defender of free software and a business leader in this field, praised the merits of the free software industry as a PQ activist. "Microsoft Prisoner" Having worked for a long time in the IT resources department at Cascades, CAQ MNA Christian Dubé fears that the Quebec public administration is "still a prisoner of Microsoft" by spending large sums of money to upgrade computer workstations. "I think we need to make sure that the government does the right risk analyses. What would be easy is to do wall-to-wall with the same technology and be stuck in the same place in four years. Are we going to find ourselves prisoners of the same systems and not be able to move towards free software at the right time? That's my concern," the MNA said.

## ###ARTICLE\_START### ID:778

QUEBEC -- The Pauline Marois government is preparing to award contracts worth nearly a billion dollars for the migration of hundreds of thousands of computer workstations to recent Microsoft licensed products. This is what Cyrille Béraud, president of the Fédération québécoise des communautés et des industries du libre, a group of defenders of this type of unlicensed software whose use is authorized without restriction, is proposing. Mr. Béraud met with the President of the Treasury Board, Stéphane Bédard, two weeks ago. After listening to the debates of parliamentarians studying the appropriations at the Public Finance Committee on the information technology component last Thursday, Mr. Béraud indicated that the PQ government will not rely on free software and has "very clear intentions" to launch the migration of computer workstations to Microsoft products, which "had been put on hold" and initiated by the former government. The Journal got its hands on a document from the Treasury Board dating from March 2012, which indicates that the migration of computer workstations to the new versions of Microsoft will require expenditures of $1.4 billion, or 738,000 computer workstations at $1,888 each. Of this amount, 19% represented the licensing fees paid to Microsoft. Upon learning of this information in March, the Parti Québécois reacted promptly by denouncing the public administration's dependence on Microsoft and by mentioning that the government could save money by relying more on free software, as opposed to Microsoft software. The PQ even said it feared that the Liberals were giving in to pressure from lobbyists. However, the PQ is about to embark on these same expenditures, deplores Mr. Béraud, who was nevertheless a very active PQ activist in the last election. No response The Treasury Board indicated that it could not answer questions about the migration of computer workstations at this time. A committee has been set up to limit the budgetary impact of this expenditure. The government plans to announce concrete measures to integrate free software soon, we were informed. On Friday, the Journal reported that it had obtained a letter signed by the secretary general of the Marois government, Jean St-Gelais, in which he wrote that a "public call for tenders would not serve the public interest" for a contract with Microsoft Canada. The government explained to the Journal that there was an urgent need to act. In addition, some are questioning the presence of Éric Leduc, a long-time activist, on the PQ's national executive council. Occupying the position of director of business solutions at Microsoft Canada, he is considered one of the highest-ranking figures in the company in Quebec. "What we wonder is whether he is still acting as an activist," wondered two sources close to the PQ. "We wonder when we hear that the party will continue to invest so much in Microsoft products when it wanted to reduce its dependence on Microsoft." "A little embarrassment" In 2010, when he was president of the PQ executive in Montréal-Ville-Marie, Mr. Leduc intervened at a party meeting to try to modify a proposal to ask the party to further explore free software. He then suggested amending the proposal so that it ended with the formula: "if it allows for reducing costs for the Quebec government." An activist, who was there, explained that Mr. Leduc should have kept himself a little embarrassed. "When you go into politics and work for a mining lobby, you don't intervene when it comes to mining. It's the same for him, especially since he has often said he counts on his IT skills to help the party," he lamented. "He still has direct access to the Prime Minister by sitting on the national executive council."

## ###ARTICLE\_START### ID:779

QUEBEC CITY - QUEBEC CITY -- The highest-ranking official in Pauline Marois' government, Jean St-Gelais, allowed the Centre de services partagés du Québec to conclude an agreement with Microsoft Canada without going through a public tendering process. However, this practice was strongly denounced by the Parti Québécois before his election. According to Mr. St-Gelais, it was "in the public interest" not to conduct a tendering process. The Journal obtained a copy of a letter signed by Mr. St-Gelais, secretary general of the Executive Council of the Government of Quebec. Dated October 4 and addressed to the director of the Centre de services partagés du Québec (CSPQ), the letter states that a "public tendering process would not serve the public interest for the acquisition of this software." Among the licenses to be acquired through this private contract are 800 Office 2010 licenses and 1,400 Exchange licenses. Products valued at nearly $2 million according to the experts consulted. The CSPQ was unable to answer the Journal's questions yesterday. Dependency denounced The secretary general bases his decision on the decree of the Jean Charest government, dating from 2011, which allowed the CSPQ to conclude contracts without going through a call for tenders process. In large part, this decree aimed to ensure the updating of Windows software on the hundreds of thousands of computer workstations of Quebec civil servants. This decision is however surprising, considering that the Parti Québécois denounced the Quebec government's dependence on Microsoft, in addition to indicating that the province should opt for the exploration of less expensive solutions, including free software. This is what Cyrille Béraud, president of the Fédération québécoise des industries et communautés du libre, points out. The latter is also president of the company Savoir-Faire Linux, which, in 2010, won its case before the courts, which stated the obligation of public bodies to go through a call for tenders process. The decree allowed the Charest government to override the judge's decision, and the current government applied this decree for this contract with Microsoft. No "courage" "The reality is that Quebec's computer systems are completely under the control of multinationals," regretted Mr. Béraud, who estimates that the use of free software would reduce expenses "by ten." "We have to have the courage and the PQ does not have this courage," added the man who is demanding a commission of inquiry into collusion in the computer industry, in addition to advocating the exclusivity of free software within the public administration. Updating Microsoft software could represent expenses for the State of nearly a billion dollars. Renowned lobbyist for the firm National Martin Daraîche renewed his mandate with Microsoft Canada on January 11.

## ###ARTICLE\_START### ID:780

ELECTRONICS In 2012, 22.9 million mobile phones were sold in France, compared to 24.3 million in 2011, according to the latest study by GfK. Smartphone sales continued to grow, exceeding 15 million devices sold in twelve months, but this did not fully compensate for the decline in mobile phones. "The French mobile phone market has reset the counters to zero, with the arrival of a new operator," emphasizes Michael Mathieu, telecoms analyst at GfK. The arrival of Free and the rise of no-commitment offers have led to an extension of the lifespan of phones. Three-quarters of people who opted for a subscription without a device offer kept their old mobile. Another notable development highlighted by GfK is that in 2011 Apple and Android shared 98% of smartphone sales in France. This proportion fell to 79% in 2012. Other operating systems (OS), the software that brings smartphones to life, are gaining momentum. GfK estimates that this year, Windows 8 could gain market share, as could BlackBerry 10, the new OS from the Canadian company, or even the royalty-free software, Tizen. On the IT side, it was tablets that created the event: 3.6 million were sold in France, an increase of 140% in one year. Growth should continue in 2013, reaching 5.1 million. PC sales, for their part, fell by more than 30%. GfK nevertheless estimates that computer sales could start to rise again, driven by the advent of a new category: hybrids, these PCs with a detachable screen that transform into a tablet. Televisions in decline The other major market in full upheaval is that of televisions. GfK analysts had anticipated a decline in 2012, but they did not think the fall would be so violent. Sales of televisions in France fell by almost a quarter in one year, to reach 6.7 million screens sold. The reasons for this decline are known. French homes are now equipped with flat-screen televisions that receive DTT. And no technology has come to take over. GfK even anticipates a slowdown in the adoption rate of new technologies: Oled and Ultra HD screens (4 times the definition of HD) will enter our living rooms less quickly than LEDs. The decline in television sales should continue, for a soft landing in 2015, at 5.5 million. The only truly dynamic market segment remains that of audio and particularly headphones, up 13% for a total turnover of 323 million euros. Last year, 223 new brands appeared on the French market, notes GfK. Often in vain, since the “traditional” players in this market still represent 94% of sales.

## ###ARTICLE\_START### ID:781

"Before the Internet, there was mail art," says the stamp of Vittore Baroni, curator of Pneumatic Circus, a networked art project that uses the pneumatic post of the Telekommunisten collective at the Transmediale festival. A veteran of mail art, Baroni invited a hundred of his colleagues to send customized cylinders, or "capSOULes," containing instructions for a mini-performance. A way of reactivating an artistic practice that invented the social network before Facebook made it a commodity. Recipients. While the avant-gardes had already experimented with mail, Ray Johnson, the American artist credited with the paternity of mail art, was the first to make correspondence a networked artistic practice. The pop artist devoted himself to his epistolary activity in the early 1960s, sending a quantity of postcards, drawings, found objects, collages, press extracts, etc. In order to expand his network of correspondents beyond the circle of friends, Johnson asked the recipients of his letters: "Please add to and return", or to forward to third parties. Without these instructions, the network could not have expanded, going from a few dozen participants in the early 1960s to thousands in the decade that followed. This postal communication was based on sharing and giving. An "eternal network" - as Robert Filliou has described it - of exchanges around the globe, where everyone could participate, according to the ethic of mail art which advocated extending access to the network by including novices, circulating objects and ideas without claiming their ownership, contrary to the art market. The movement spread from the northern United States to Europe and Japan. The games of visual and textual collages overflowed the envelope to infect the stamps, the stamps, the letterheads, the names and addresses of the recipients. Some also had fun with the postal system, like the Fluxus artist Ben. In The Postman Choice, two addresses with two stamps appeared on each side of the same postcard, leaving the choice of the final destination to the postman. Since mail art is an art of communication, it was particularly explosive where freedom of thought was restricted, such as in the GDR (1). For the countries of the Iron Curtain, mail art was a means of opening up to the world, but also a subversive practice against bureaucratic power. At the Transmediale, two mail art artists from the former GDR came to talk about the time when this kind of letter exchange could land you behind bars. Prison. The artist Robert Rehfeldt (1931-1993) introduced mail art to East Berlin in the early 1970s and succeeded in building a network of contacts and collaboration between Eastern and Western Europe, the United States and Latin America. His motto was: "Meine Idee hilft deiner Idee, unsere Ideen helfen andern Ideen" ("my idea helps your idea, and our ideas help other ideas"), which today echoes the open source movement on the Internet. In 1975, he organized the first mail art exhibition in the GDR at a time when this activity was not without risk. "The Stasi considered mail art an enemy," says the artist Karla Sachse, who recalls that the Ministry of State Security controlled all domestic mail and even more so international exchanges. Any critical point of view could be declared an act of hostility against the state. Some ended up in prison, but that was not enough to discourage the members of the "eternal network", who continued their cheeky wordplay and anagrams, transforming "glasnost" into "angstlos" ("without fear"). When the Stasi opened its archives, it was found to have the largest collection of mail art in the world... (1) mailartists.wordpress.com

## ###ARTICLE\_START### ID:782

Curator at the Library of Contemporary International History, lawyer and co-founder of the SavoirsCom1 platform, which is committed to defending the "common goods of existence", Lionel Maurel regularly deciphers on his blog (1) the attacks targeting the public domain. How do you analyze this Sony-Dylan "affair"? It is downright provocative, since they subtitled this record "The Copyright Extension Collection". More broadly, free access deeply disturbs the cultural industries. For them, in music as in other sectors, it is something that must be fought. So, we must fight the public domain like piracy or educational exceptions [which allow a work to be used for educational and research purposes without having to pay royalties, editor's note]. Does the argument that a work that has fallen into the public domain becomes less available hold up? No. Already, the public domain is also an economic driver, because if we lift the monopoly on the exploitation of a film, a book or a record, more people can publish it. For example, Stefan Sweig's books entered the public domain [on January 1st, editor's note], and we can already see that this leads to new editions, absolutely not a disinheritance of his work. Also, the public domain facilitates the reappropriation of works, the remix. On Kickstarter, a project to adapt Hamlet in the form of a digital book "in which you are the hero" became the best-funded publishing project in the history of the platform... while several publishers refused it! The public domain also allows a publishing house like Publie.net to rediscover forgotten science fiction works, which date back well before Jules Verne. Has the Internet changed the perception of the public domain? It has been under regular attack for a long time, but they are more easily perceptible today thanks to the Internet. There is a greater sensitivity on the network towards these issues of circulation of works, particularly among those who defend free software or the free circulation of information, such as Wikipedia. But at the same time, digitization also weakens the public domain: many museums or libraries add a layer of copyright on the digitized version of paintings or books that are in the public domain... This is above all why it is forbidden to photograph the paintings in the Musée d'Orsay. The National Library of France has also just signed an agreement that excludes part of its digitized collection from the public domain... These are the two major agreements that took a long time to come to fruition, by which the BNF entrusts the digitization of works [old books and vinyl records, editor's note] to private companies that will have exclusive rights to their commercial exploitation for ten years. That is to say, we are privatizing works that belong to everyone. (1) www.scinfolex.wordpress.com

## ###ARTICLE\_START### ID:783

The concept of "open source" is a hot topic. Initially designed by and for programmers, many online platforms correspond to virtual laboratories where a diverse community scattered all over the planet can work on the design and development of free software in real time by directly intervening in the lines of code accessible to all. The idea is spreading: why, some suggest, not invite the population of a city or a country to collaborate on the drafting of various bills, for example? And what about the possibilities for artistic creation? A young theatre collective from Montreal decided to give it a try. Around a table... It was in an almost archaic but no less friendly social space - the local café - that I met Martin Bellemare, Félix Monette-Dubeau and Francis-William Rhéaume, the three founders of Théâtre LA45. The first is an author, the other two are actors, all three graduates of the École nationale. In addition to the show Programme double -Théâtre viril et sportif, presented in March 2011 at the Fred-Barry hall, the young company had also produced the previous year short dramatic fictions in the form of podcasts to be listened to in the urban locations that inspired the fables and characters. Rhéaume confides that the citizen mobilization observed during the student crisis made him think a lot about the possibilities of collective action. Discovering the GitHub platform through a conference, he quickly wondered if this type of tool could find an application in the field of theatrical creation. Supported by his two companions, he then outlined the main points of Source Libre, a project launched this week and bringing together 24 playwrights who will engage for three months in an exercise in cooperation without coordination. Félix Monette-Dubeau describes this process as "a non-hierarchical way of working on the same object"; A small code of conduct is proposed so that the atmosphere remains cordial, but that's all, no moderator will intervene to make decisions. Hidden behind a pseudonym, each author can connect at any time of the day to add, remove, correct lines, introduce new characters, etc. The site records each modification and allows you to go back at any time. Reconnecting with collective creation Martin Bellemare, whose text Le chant de George Boivin was performed last fall by Pierre Collin, emphasizes the act of writing: "Often, whether in politics or in the process of collective theatrical creation, there is a lot of discussion, it drags on, we organize ourselves into committees... Here, everyone's opinion will be expressed in action." It is the recovery and development by the greatest number of an individual proposal that will serve as an implicit vote of confidence. The undertaking obviously involves its share of challenges related to the mixture of styles, the susceptibility of each person, the possible tendency of some to want to take control, etc. What theme, what form, what language will allow the work of 24 artistic personalities with varied sensibilities to be united around the same object? The three guys from LA45 recognize that the outcome of the experiment is impossible to predict and that failure is possible, but their enthusiasm is quite contagious. This would have pleased Robert Gravel, a great lover of this type of playful approach to creation and whose many collective writing games have often led to shows of the New Experimental Theater such as La Californie (1984) and La pipe à papa (1989 and 1992). A public reading of the final result of Source Libre is already planned at the Théâtre de Quat'Sous in May. Until then, any Internet user will be able to follow the writing of the play live on the site which will be officially put online on February 1 at 1 p.m.: source-libre.org/.

## ###ARTICLE\_START### ID:784

In the article "The new Montreal Planetarium moves in", published on January 24 on page B 8, we indicated that the design of the new planetarium and its construction had been entrusted to Cardin Ramirez Julien architectes. However, we failed to point out that they had worked closely with the architectural firm AEdifica, with which they formed the consortium of architects Cardin Ramirez Julien +AEdifica. \*\*\* Contrary to what was published in our article entitled "58 million for Oracle", published in our January 24 edition, the Montreal executive committee has just granted an additional sum of $22.2 million for the purchase and maintenance of software over a period of four years, not three. In total, this brings to 57.6 million the amount paid to the multinational since 2003 for this plan for the use and maintenance of proprietary software, the use of which is denounced by defenders of free software. Furthermore, this transaction does not target Microsoft products.

## ###ARTICLE\_START### ID:785

SHERBROOKE - Two months after thinking long and hard about a possible merger between Révolution Linux and Montreal company Gestion-Ressources, Sherbrooke company Révolution Linux has announced that it is being acquired by the Mondo-In group. Mondo-In, a Montreal-based specialized software publisher, will benefit from a large clientele already acquired by the Sherbrooke company and will leverage Révolution Linux's expertise in the field of open source software. Révolution Linux offered solutions and mainly services for web applications, infrastructure and centralized management of computer systems. Mondo-In's marketing director, Frank Bernascon, believes that the acquisition of Révolution Linux will allow his company to improve its infrastructure and offer better network installation services. For his part, Mondo-In's president, Ronald Brisebois, assures that the purchase of Révolution Linux remains an excellent fit for both organizations. "We bought a company that only had a turnover of $2.2 million," he says. "Revolution Linux wanted to give itself a little more credibility on the global market and at Mondo-In, 66% of our revenues come from Europe." Revolution Linux had 25 employees before the transaction. Aside from its main offices in Estrie and the metropolis, Revolution Linux also remained active in France and Brazil. Jobs will be preserved Note that Revolution Linux's commercial presence will be maintained in Sherbrooke in order to properly serve the Estrie commercial market. "We are keeping jobs in the region," assures Mr. Brisebois. "We have many ties with the University of Sherbrooke and we might even develop more in Estrie. Will we hire new employees? It all depends on future projects." "Mondo-In's activities were 80% limited to the production of free software, while Révolution Linux's market was 60% based on services offered for software installation. We are already working on major projects that will bring together the qualities of each organization!" specifies Roland Brisebois.

## ###ARTICLE\_START### ID:786

A ten-minute walk from the centre of Stockholm, a beautiful brand new building, surrounded by large bay windows. This is where Spotify's 350 Swedish employees moved in six months ago. In the background, an electro track by Swedish House Mafia welcomes visitors. On the black wall of the entrance, a replica of the original hand-drawn diagram of the software interface. Today, the green logo of the Swedish company is known to Internet users around the world... Welcome to the HQ of the booming music streaming site: already 20 million followers, including 5 million paying subscribers... Like its French cousin Deezer, but more trendy, Spotify is an alternative to iTunes, Apple's expensive store. Here, there is no downloading of albums or songs individually. You listen to music live and above all... at will! More than 20 million tracks are available for free access on your personal computer... on condition that you accept ad spots every two or three tracks. Rather annoying. To take full advantage of it, you have to subscribe: a little less than 5 euros per month to get rid of the invasive advertising and a little less than 10 euros to listen on your tablet or smartphone. That's the average price of a record on iTunes. "Pirates". The difference is that the work listened to is not purchased by the Internet user: as on the radio, it remains the property of the record company that has signed a broadcasting agreement with Spotify and therefore cannot be stored on a PC... This model took off in the mid-2000s, when the majors moved up a gear in their fight against music piracy. Spotify caught the wave at the right time and has continued to grow until it became one of the world's leading sites, with subsidiaries in 17 countries and 750 employees, twice as many as in 2011. Launched in 2006 by two Web kids, the former start-up is now a heavyweight that record companies must reckon with to sell their artists. At 61 Birger Jarlsgatan, Spotify's headquarters in the Swedish capital, the saga proudly spreads from wall to wall in the form of a "timeline" retracing the main stages of the company's development. We pass a first meeting room with psychedelic colors and prints called "Summertime" - hey, the title of a Janis Joplin song. And here is Jonathan Forster, one of the oldest employees, who tells the story of the company's beginnings. It all started with the idea of two young startupers, Daniel Ek, co-founder of uTorrent at the age of 23, and Martin Lorentzon, co-founder of TradeDoubler. Music fans and, at the time, a bit of a "pirate", they decided to offer an alternative to illegal downloading. And chose the name "Spotify" during a drunken evening. In 2007, six developers were working in Daniel Ek's apartment. No contact had yet been made with the labels. "The first time I went to visit them, they threw me out and said: "We're not going to give away our rights for free, are we!" All things considered, it was easier to convince the venture capitalists," says Jonathan Forster, now Managing Director for Europe, with a smile. Convincing the players in the music industry to sign with Spotify took two years and country-by-country negotiations. "We were looking for the fairest deal between labels and artists, to ensure fair compensation for everyone," explains Forster. But it was the combination of several factors that facilitated the launch of the service to the general public in 2009 and its meteoric growth thereafter: the resounding lawsuit against ThePirateBay (one of the world's largest download sites, also based in Sweden), punitive European legislation against piracy, and the spread of high-speed Internet... Today, Spotify is on a roll, but the company keeps mum about its turnover. The company simply specifies that for each listen, a few cents are paid to labels and artists. That is 70% of its revenue, including ads and subscriptions. Since 2009, the earnings for rights holders amount to $500 million (€374 million). This revenue sharing is included in all contracts with record companies, including the global major Universal Music. "The label does what it can for the good of the smaller artists. We advertise them on Spotify, run social media campaigns and create playlists on Digster," explains Per Sundin, CEO of Universal Sweden. A powerful argument for record companies: on Spotify, 80% of tracks are listened to at least once. Table football. The system is almost virtuous. Almost, because, for Ludvig Werner, CEO of Ifpi, the powerful global music industry union, "musicians who are not listened to are losing out. A classical orchestra, which would have previously pocketed 15 euros when its album was sold, will now only receive a few cents the rare times it is clicked on." But Per Sundin assures us, with a hint of cynicism in his voice, that "if some artists continue to complain, it is because they are not popular." From his flashy office a few streets away, the local boss of Universal has witnessed the transformation of the music industry in recent years and works hand in hand with Spotify: "Without them, we wouldn't be here!" he says. In fact, the four main majors (Universal, Sony, EMI and Warner) were shareholders in the Swedish company from its launch. "Since 2009, streaming has helped to revive the music market in Sweden, even if sales of CDs and songs on iTunes have continued to decline," explains Ludwig Werner of Ifpi. In this country where half the population listens to music for more than three hours a day, music sales have increased by 14% this year. And 57% of them come from streaming, mainly from the software with the neon green logo. Spotify's recipe is the developers, those little hands that work behind the scenes. These young people, who rarely exceed thirty, occupy two floors of the building made of colorful open spaces, the ones where journalists are forbidden to linger. They are the kings of the company: video game rooms, table football, more flexible hours, they are denied little. "When you're hired, no specific university degree is required. What matters is that you prove what you can do," says Jim Butcher, director of communications, sporting the obligatory jeans and sneakers. Some developers are spotted during "hackathons," others have created applications thanks to the open source Libspotify. To attract them, "the salaries are competitive and the social rights are numerous," he says. Here again, they refuse to give out information, top secret. From a distance, you can see large whiteboards on which a few lines of code are scribbled. <INSERT SECRET STUFF HERE>, we read on one of them, to underline the humor of the thing. Plagiarism. In recent months, the little geniuses in the printed T-shirts have been developing the new features presented by Daniel Ek on December 6 in New York (see the video). The two main new features planned for the end of the first quarter are the "discover" page and the "subscription" mode to the accounts of friends or personalities. Two ideas that stem from the uses of social networks like Facebook and Twitter. "We took the social turn in 2010, when Spotify was integrated into Facebook," explains Michelle Kadir, director of product development, who denies any plagiarism. "We draw our inspiration from requests from our subscribers, with surveys, user tests, but also thanks to comments on our forum. What came up most often? "I never know what to listen to" and "How can I be notified as soon as a new album comes out?" The developers apply one of Spotify's mottos to the letter: "Think it, build it, ship it and tweak it." This is how the "discovery" pages were conceived last summer, built in a few months, then tested by randomly selected Internet users and adjusted after distribution to the general public. We will not see the last link in the chain: the data processing center hosted in other premises, an hour's drive from Stockholm. No question of taking a look at the servers that allow instant listening to music and provide peer-to-peer. All the music, searches, playlists, user data are stored there. Top secret. "When an Internet user wants to listen to a song, our machines look for the fastest way to bring it to him, often a closer computer. This system is faster and less expensive," Emil Fredrikston, director of operations, barely agrees to explain. So we leave the "Pretty Vacant" meeting room a little frustrated. Hey, a Sex Pistols song.

## ###ARTICLE\_START### ID:787

Ahead of us, a year that we are promised to be historic rolls out its starry and almost intimidating carpet. Microsoft will launch a new console in 2013 and it is very likely that Sony will also unveil its own. Reading the specialized press that is already busy peeling back their unofficial entrails and comparing their putative prowess (1), we understand that these imminent machines are seeking to anticipate the future in the hope of redesigning it to their advantage. Because these new living room monsters will have a lot to do to perpetuate the model that constitutes them, a competition of an unprecedented type also having to make a notable appearance in the gamer landscape with, on the one hand, the launch of the opensource Ouya console, born in the participatory cradle of crowdfunding and, on the other hand, the arrival of the Steam Box. This latest system, designed by Valve (both a major studio and a giant of digital distribution via its Steam platform) could be the most disruptive, since it proposes to replace consoles with a PC that becomes the central gaming system again, controlling the flows of all the screens in the house. Arts and techniques evolve together and these new proposals from the industry, if they resonate with gamers, will have a profound influence on the way games are designed in the short term. In this context, many professionals are wondering about the sustainability of the model of the famous AAA productions, for which classic consoles have been the preferred medium. This is undoubtedly the juiciest niche and perhaps the only truly profitable one in this fierce market, but it is also the riskiest because it involves very high production costs, which will increase further with the new generation. We could almost read bits of this melancholy in a game currently at the top of all the gondolas and typical of this culture of the triple A: DmC - Devil May Cry (2), clever reboot of a beautiful franchise from the 2000s. All the genius of the game lies in the brilliance of its bosses, always more grandiose, sickly, aberrant. We think we can guess that if they had gone to the end of their logic, or their unconscious, the developers of Ninja Theory would have reached the degree of refinement of a Shadow of the Colossus, where there is nothing more: sumptuous, admirable bosses. However, to have today the most accurate, the most beautiful idea of this child of console culture, it is on PC that you have to play it... (1) The Gamesindustry.biz site takes stock of the "leaks" around the two manufacturers. (2) Produced by Capcom for PC, PS3 and Xbox 360, €40.

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This gesture is "unjustified," according to them, and could even harm the construction of digital services in participatory mode, a principle that is nevertheless on the rise in several large cities around the world. "It is simply distressing," commented Cyrille Béraud, president of the Fédération québécoise des communautés et industries du libre, on Wednesday. "This once again demonstrates the subjugation of administrations by proprietary software and their lack of understanding of so-called free IT solutions. Technologically, it is unjustified and it is unjustifiable in terms of spending public funds." On Wednesday morning, the executive committee approved an additional expenditure of $22.2 million to cover "technical support costs and obtain the rights to use Oracle software licenses." This brings the amount paid to Oracle Canada to $57.6 million over three years. The systems thus acquired will be used to manage the City's computer networks as well as to create and manage its databases. The file will be included on the agenda of the next municipal council. The decision of the Committee shows double talk on the part of the City, believe the defenders of free software.

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Among Stewart Brand's initiatives, three events have lastingly shaped the image of the computer and the Internet in popular culture. Trips Festival, the mystical connection The event imagined by Stewart Brand is an extension of the acid tests, gatherings of hippies around LSD on the West Coast, orchestrated by the writer Ken Kesey and his Pranksters, set to music by the Grateful Dead. Brand had the idea of associating the psychedelic lighting of the New York artist collective USCO, author of spectacular shows based on strobes, projectors and tapes, in order to make it a total experience. The first Trips Festival, at Longshoreman's Hall in San Francisco, from January 21 to 23, 1966, marked the meeting of the psychedelic scene and multimedia technophilia. "The Trip - or electronic performance - is a new medium of communication and entertainment", could be read on the flyer, and solicited active participation from the public. LSD - another cutting-edge technology experimented with by the CIA - had recently been banned, so the posters promised an acid test... without the drugs. But it was high on LSD that the dancers, covered in fluorescent paint or dressed in crazy outfits, communed among the image walls of the slide projectors, to the soaring music of the Grateful Dead. A huge success, the Trips Festival was rescheduled every year and attracted ordinary Americans, eager to expand their consciousness. Fred Turner describes this moment as the meeting point "between the emerging social ideals of the new communalists and the technological and ideological products of the Cold War." The Hacker's Conference, "the Woodstock of the computer elite" In 1984, Stewart Brand created the first forum dedicated to hackers, "heroes of the computer revolution", popularized by the book by Steven Levy, columnist for the Software Catalog (one of the many extensions of the Whole Earth Catalog). One hundred and fifty of them answered the call, including Steve Wozniak, Ted Nelson, Richard Stallman, a pioneer of free software, and Ted Draper, aka Captain Crunch, for a three-day meeting at Fort Cronkhite, a former military base near San Francisco. It was at this conference that Brand famously posited the paradox of the digital economy: "On the one hand, information wants to be expensive because it is so valuable. [...] On the other hand, information wants to be free because the cost of getting it is getting lower every day." According to Turner, Brand was interested in determining whether "hackers were, for the 1980s, the kind of cultural vanguard that the back-to-the-land green masses had aspired to be in the previous decade." The press coverage, which evoked "a Woodstock for the computer elite," further equated individualistic engineers and innovators with cultural rebels. The same year, the Chaos Computer Club, a legendary German hacker club, also launched its own conference. The Well, a welcoming land for disembodied tribes It is one of the oldest virtual communities still active on the Net, founded by Stewart Brand and Larry Brilliant - an IT company director - in 1985. The Well (Whole Earth 'Lectronic Link) and the networking of individuals constituted for Brand and the ex-hippies who had returned from their neo-pastoral escapade, a second chance to create in cyberspace, "a community of shared consciousness", capable of regenerating social ties. The Well began as a teleconferencing system. Subscribers could connect to it via modem, exchange messages and participate in numerous online conferences. Brand brought together former counter-culture figures, Grateful Dead fans, hackers and journalists who collaborated within this "network forum" whose influence was decisive for the emerging Internet.

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In 1964, Berkeley students demonstrated with punch cards hanging from their necks, accusing governments of reducing them to bits of abstract data. The IBM card, a metaphor for the computer, was brandished as a symbol of alienation. How did these same machines, emblems of Cold War technocracy, creatures of the military-industrial and academic complex, manage to transform, thirty years later, in the collective imagination, into a tool for individual emancipation? Blame the hippies, believes Fred Turner in his 2006 book, From Counterculture to Cyberculture. Turner tells the story of Stewart Brand, a journalist and entrepreneur, not the best-known of Silicon Valley figures, but a formidable go-between who made the connection between countercultural, academic and technological communities. The journey of the libertarian Brand, ex-Merry Prankster converted to the new economy, is itself a shortcut to the history of the Internet. Reservoir. By following his wanderings, Turner unravels a complex skein of links uniting hippies and the digital revolution of the 90s, LSD and microcomputers, neo-pastoral communities and Net tribes. The author finely analyzes how cyberculture and all the imagination linked to information technologies grew on the compost of the Whole Earth Catalog (WEC). Bible of the hippie counterculture, this UFO publication was launched in 1968 by Brand, at the time when his hairy friends from the Bay Area were exiling themselves en masse to the countryside to live in a community. In order to help them in their return to the land, Stewart Brand began designing a practical catalog full of information for doing everything yourself. A reservoir of tools, it is also a disseminator of visionary ideas, building a bridge between counterculture and cutting-edge science, with patron saints such as mathematician Norbert Wiener, father of cybernetics, Buckminster Fuller, inventor of geodesic domes, and Marshall McLuhan, designer of the "global village." After studying biology at Stanford, California, Stewart Brand, born in 1938, ended up in New York in 1962, where he rubbed shoulders with the USCO (The Company of Us), a collective of multimedia artists, before joining the acid-fueled flock of the Merry Pranksters. "By founding the WEC in 1968, he brought these different communities together in a single textual space. This space became a networked forum, an interdisciplinary place where these communities exchanged ideas," writes Turner. A sort of "paper Google," as Apple founder Steve Jobs would describe it, the Whole Earth Catalog also permeated Silicon Valley's entire culture of "garage innovation." Subtitled "Access to Tools," it made its readership aware of the liberating potential of the then-fledgling personal computer. From the very first issue, it touted a Hewlett Packard desktop calculator, the most expensive item in the catalog. That same year, Brand filmed The Mother of All Demos, in which engineer Douglas Engelbart presented an entire arsenal of experimental technologies that would revolutionize our daily lives (mouse, hypertext, desktop metaphor, videoconferencing, email, etc.). If the revolt movement of the 60s has often been described as technophobic, Turner distinguishes the New Left movement - involved in the struggles for the end of war, segregation - from a more artistic movement (the hippies), who, deserting the political fight, will focus on the individual - his mind, his creativity - and advocate the reappropriation of technologies to broaden his field of consciousness and find other ways of being together. "Drugs". As early as 1972, while the back-to-the-land movement was running out of steam, Brand transferred his hopes to hackers, a high-tech version of dancers on hallucinogens. He devoted an article to them in Rolling Stone, promoting them to the rank of rock stars, while rejoicing at the arrival of computers in homes, "the best news since psychedelic drugs". The community that had formed around the Whole Earth Catalog migrated online, becoming the catalyst for the Well, one of the oldest and most influential virtual communities (see opposite). The emerging Internet represented "the new frontier," the place where neocommunalist ideals would finally be fulfilled: an independent, egalitarian, decentralized space, without hierarchy, where citizens would build new forms of political organization, based on participation and collaboration - even if in reality, the Well participants were overwhelmingly male, white, and educated. Key figures such as Kevin Kelly, future director of Wired, and John Perry Barlow, former lyricist for the Grateful Dead and co-founder of the Electronic Frontier Foundation, were found there. The latter would also fuel the Global Business Network, a consulting firm launched in 1987 by Brand, which would work to convert companies to the cult of the network, transversality, sharing, and autonomy. With Wired magazine as its propaganda organ. A romantic counter-cultural vision of technology that fits in with the laissez-faire of the new economy. And which continues today, both in the slogan "Don't Be Evil" of the giant Google, as well as in the free software communities, or the collaborative encyclopedia Wikipedia. As for the guru Brand, he is still running, now president of the Long Now Foundation, an organization that encourages very long-term thinking, opposing slowness to technological acceleration. Recently questioned by his sidekick Kevin Kelly for Wired magazine on whether technology still had a counter-cultural bent, Stewart Brand the futurist believes that the most promising next generation is on the side of... biohackers...

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He was a prodigy of the Web. Capable, at not even 14 years old, of being one of the main designers of the RSS feed, which today allows everyone to have a maximum of sources of information in real time on the Net. An idealist and an activist too, who stopped at nothing to promote his obsession with free access to information and had to face justice in April for having hacked one of the sites of MIT, the famous Massachusetts Institute of Technology. But, since the announcement of his suicide, last weekend at the age of 26, Aaron Swartz is above all on the way to becoming the "first martyr of the Web", as the specialist site Quartz noted. In a few days, his death has been invited on all social networks and has led to tens of thousands of tributes on Twitter. To make the computer scientist and genius programmer the symbol of the fight for a free Internet in the face of the intransigent American justice. The New York Times reported Swartz's death on Saturday, when he hanged himself in his Brooklyn apartment. According to his family, the young man had long suffered from depression, but was also particularly anxious as his trial approached. In 2011, Swartz was charged with wire fraud by the American courts after hacking into MIT's JSTOR portal, in order to make available to the public nearly 5 million scientific articles accessible only by subscription. The young man broke into the computer room to leave a laptop there and download the articles. And, according to the indictment, he faced a potential fine of one million dollars (750,000 euros) and thirty-five years in prison. The day after his suicide, Swartz's family pointed the finger at the authorities. "Aaron's death is not simply a personal tragedy," his parents wrote in a statement. It is the product of a justice system that uses intimidation and excessive prosecution. The decisions that were made by the Massachusetts attorney general's office and MIT contributed to his death." Harm. Immediately, the shockwave spread across the Web. Bloggers began to point out that Swartz, even if he was little known to the general public, was one of the most gifted computer scientists and activists of his generation, a sort of Robin Hood of the Internet who had taken the lead in the fight against American legislation on computer piracy (the famous Sopa law, abandoned last year) with his group Demand Progress. Faced with the emotion, the president of MIT, Rafael Reif, was forced to react publicly by announcing the opening of an investigation to determine, in essence, whether the institution had unfairly accused the young prodigy and had been able to harm him. But Swartz's suicide has above all rekindled a broad debate on access to information on the Internet. Spontaneously, thousands of academics began to distribute their articles for free on Twitter, preceded by the hashtag #pdftribute. "Maybe the world will finally be a little more sensitive to all the discussions that have been going on for over a decade about open access," comments Ethan Zuckerman, the director of the Center for Civic Media at MIT. "And it will surely help some professors understand that they can make their work more available on the Internet. Which would be a nice way to pay tribute to Aaron." Many attacks have also been leveled against American prosecutors and the severity of the penalties incurred by hackers of all kinds. In a hot post on his blog, the famous jurist and great advocate of free software, Harvard professor Lawrence Lessig - who knew Aaron Swartz well - directly attacked Carmen Ortiz, the Massachusetts prosecutor, who had personally chosen to lead the MIT case before the courts. Recalling that the JSTOR portal had decided to drop the charges against Swartz at the time, Lessig wonders: "Was Aaron a terrorist? Or a trafficker who wanted to profit from stolen goods?" "To me, the charges against Aaron Swartz were not motivated by profit and did not even really correspond to hacking," Christopher Soghoian, a specialist in new technologies at the ACLU, the civil rights union, told Libération. "Prosecutors should have shown more restraint in this case and focused on more serious problems." Crowd. On Tuesday, Aaron Swartz's funeral was held in Chicago, his hometown, in the presence of a large crowd. For four days, two petitions filed on the White House website have continued to collect thousands of signatures. One calls for the dismissal of Carmen Ortiz from her post. The other asks Barack Obama to grant a posthumous presidential pardon for Aaron Swartz.

## ###ARTICLE\_START### ID:792

QUEBEC - A public inquiry into IT contracts is not necessary for now, according to Treasury Board President Stéphane Bédard. "We're not ruling anything out," he said yesterday. He acknowledges that there is a problem, but it stems from management. In 2011 and 2012, Quebec's auditor general published devastating reports denouncing the poor management of IT contracts, which were mostly subcontracted to the private sector. Collusion and corruption could explain these significant cost overruns, according to the Syndicat de la fonction publique du Québec (SFPQ). Its president, Lucie Martineau, is calling for a public inquiry commission. "We're not saying there's collusion. We want to verify it," she said. She explained that the IT sector contains the "ingredients" that have rotted the construction industry: skyrocketing work costs, limited or no competition, and the government's dependence on private firms. When he was head of the Anti-Collusion Unit, Jacques Duchesneau had also requested a public inquiry. His party, the Coalition avenir Québec, recently obtained that Jean-Marie Lévesque, responsible for the IT file, answer questions from elected officials in a parliamentary committee on January 30. "Before requesting an inquiry, we want to examine the management. We will check what was done in the departments and among subcontractors," explains CAQ member Christian Dubé. A "dashboard" was created on the recommendation of the Auditor General. "But we only see contracts for $1 billion, there are $2 billion missing," regrets the CAQ member. Mr. Bédard promises to submit an action plan "soon" to better define needs, plan work, evaluate costs and promote competition for IT contracts. Nearly half (46%) of the contracts were obtained by three firms: Groupe LGS, CGI and DMR (a division of Fujitsu). In 2011, the Liberal government signed a decree to facilitate the purchase of licensed software without a call for tenders. This meant that, for example, it was avoided from comparing it to free software. The decree expires in March. Mr. Bédard indicated that he could give more space to free software, without making a formal commitment to do so. Last November, the Auditor General noted that half of IT contracts were awarded to private firms. The proportion is 8 to 35% in other states, according to him. The definition of needs and the cost estimate were poorly documented or completely absent in 37 of the 38 contracts examined. In almost half of the cases, there was only one bidder. And in 36 of the 38 cases, the evaluation committee was not neutral. The cost of the contracts also sometimes exceeded that of the bid. In 2011, the auditor noted that two out of three projects did not respect "costs, schedule or scope." In half of the cases, there was not even a "business case." Will the PQ government reduce subcontracting? "There are scenarios," Mr. Bédard replied. Under the attrition policy, Quebec only replaces one employee out of two who retires. This could cause "undesirable effects," the minister acknowledged. He assured that he had requested a "status report."

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This is what the SFPQ's general president, Lucie Martineau, said Tuesday during a press conference. The way the Quebec government awards information technology contracts is similar to that of public contracts in the construction industry, she alleged. "Limited or even absent competition, dependence on private firms and the cost of work [that] is exploding, these are the three ingredients," the union leader argued. "We are not saying right away that there is collusion, we are not saying that there are irregularities, we are asking the government to validate it, to hold a public inquiry so that we have all the light," she argued. Treasury Board President Stéphane Bédard indicated at a press briefing that he was not ruling out the possibility of giving the Charbonneau Commission the mandate to investigate these IT contracts, but for now, he sees it as nothing more than an administrative problem. He intends to work on four fronts: defining needs, planning, monitoring and competition. On this subject, he advocates the use of free software. Damning report The SFPQ is relying on the damning report, made public in November, by the interim Auditor General of Quebec, Michel Samson. The Quebec government entrusts consulting firms with 55% of its IT services, to which it spends $1 billion per year. The AG noted that there was a lack of free competition, that the government had lost expertise and that there was a risk that it would lose control of the projects. The public service is "no longer competitive with the private sector. There is a clear loss of expertise," the minister acknowledged. Employees of external firms often work in the departments' own offices. However, a government IT technician costs $69,000 at the top of the scale, which includes the cost of his benefits, the union calculated. The same IT technician, provided by the private company, costs the government $108,000 to $143,000. On average, the government pays 1.82 times more for technicians from the external firm. Lucie Martineau mentioned the case of government employees who take a sabbatical to work for the government, but for these firms. The SFPQ called for the abandonment of the policy of not replacing one in two government retirees, a policy that has led, according to it, to "significant additional costs due to the abusive use of subcontracting." The Coalition avenir Québec spokesperson for the Treasury Board, Christian Dubé, says he is in favour of holding a commission of inquiry to the extent that it would look as much at external firms as at the government apparatus. But before launching such an inquiry, parliamentarians must hear in parliamentary committee on January 30 the Chief Information Officer (CIO) of the Treasury Board, Jean-Marie Lévesque, mentioned the CAQ MNA.

## ###ARTICLE\_START### ID:794

QUEBEC CITY - QUEBEC CITY -- The Marois government is not ruling out expanding the Charbonneau Commission's mandate to include IT projects. Until now, the IT sector seems to be more struggling with management problems, says Minister Stéphane Bédard. "But if there were events that led us to believe that we were in something similar to the construction sector, I would not hesitate for a second to recommend that Ms. Marois proceed with a specific mandate for the Charbonneau Commission. We are not closing the door," he said yesterday at a press briefing in Quebec City. The Public Service Union is loudly calling for a public inquiry into recurring cost overruns in the IT sector. The president of the union points out that three firms - DMR, CGI and LGS - share almost all of the government's contracts, which drain an average of $1 billion per year. UPAC is already interested in this sector. Without pay Another phenomenon is also worrying. Ms. Martineau maintains that "many" civil servants take years without pay to go work with these private firms, after which they return to the government. Minister Stéphane Bédard recognizes that the public service is struggling with a serious lack of expertise in the IT field and maintains that he wants to reverse the trend. The lack of competition in the IT sector is a major problem in the eyes of the President of the Treasury Board. An action plan for the introduction of "free software on a larger scale in the public service" will be tabled soon.

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QUEBEC - Concerned about the "very clearly worrying situation" in the management of IT projects, the President of the Treasury Board, Stéphane Bédard, wants to act on four fronts "at the same time." The findings made by the Auditor General in his latest reports regarding the "lack of rigor and sound management" of government IT projects concern Mr. Bédard. Before Christmas, the auditor said he was "concerned" about the loss of expertise within the government and the lack of "free competition" between companies bidding for expensive contracts. In 2011, the Quebec government had $3.2 billion worth of projects worth more than $1 million in progress. "We are currently developing different scenarios" to recover government expertise while respecting Quebec's budgetary constraints, explains the President of the Treasury Board. A review of practices is also being conducted to ensure that the government team keeps an eye on projects, that managers improve their planning and that suppliers cannot lead the way. "We will not dodge the issue," promises Stéphane Bédard. There will also be action taken regarding the use of free software in government, he says. This is software that can be used without having to pay for an operating license. A way for Quebec to save money, according to some. "There is nothing simple about this," warns Mr. Bédard. "The previous government made announcements, but let things happen. If we want to move forward, we will need action." Today, the public and parapublic service union (SFPQ) is holding a press briefing to formulate a "request to the government to put a stop to the countless cost overruns and significant delays in information technology projects." At the end of January, the Public Administration Committee (CAP), made up of members from different parties, will examine the issue of information resource projects. A new Chief Information Officer (CIO), Jean-Marie Lévesque, has been appointed by the PQ government. An "apolitical" man with impeccable "probity," assures Stéphane Bédard. The Coalition avenir Québec (CAQ) has already noted that Mr. Lévesque comes from Revenu Québec, one of the organizations where the auditor identified shortcomings in the management of IT resources. "It's more complicated than that," replies Mr. Bédard. "All the questions can be asked of him in the parliamentary committee."

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Concerned about the "very clearly worrying situation" in the management of IT projects, the President of the Treasury Board, Stéphane Bédard, wants to act on four fronts "at the same time". The findings made by the Auditor General in his latest reports regarding the "lack of rigour and sound management" of government IT projects concern Mr. Bédard. Before Christmas, the auditor said he was "concerned" about the loss of expertise within the government and the lack of "free competition" between companies bidding for expensive contracts. In 2011, the Quebec government had $3.2 billion worth of projects worth more than $1 million in progress. "We are currently developing different scenarios" to recover government expertise while respecting Quebec's budgetary constraints, explains the President of the Treasury Board. A review of practices is also being conducted to ensure that the government team keeps an eye on projects, that managers improve their planning and that suppliers cannot lead the way. "We will not dodge the issue," promises Stéphane Bédard. There will also be action taken regarding the use of free software in government, he says. This is software that can be used without having to pay for an operating license. A way for Quebec to save money, according to some. "There is nothing simple about this," warns Mr. Bédard. "The previous government made announcements, but let things happen. If we want to move forward, we will need action." Today, the public and parapublic service union (SFPQ) is holding a press briefing to formulate a "request to the government to put a stop to the countless cost overruns and significant delays in information technology projects." At the end of January, the public administration committee, made up of members from different parties, will examine the issue of information resource projects. A new chief information officer, Jean-Marie Lévesque, has been appointed by the PQ government. An "apolitical" man with impeccable "probity," assures Stéphane Bédard. The Coalition avenir Québec has already noted that Mr. Lévesque comes from Revenu Québec, one of the organizations where the auditor identified shortcomings in the management of IT resources. "It's more complicated than that," replies Mr. Bédard. "All the questions can be asked of him in the parliamentary committee."

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Relais & Châteaux on iPad Launched last December, the Relais & Châteaux iPad application - available free of charge in five languages - offers an interactive gallery of 15,000 photos of the brand's 520 hotels and, above all, allows you to book in just a few clicks. The search is done by country and you can also use the "Around me" icon to discover the establishments closest to you using geolocation. To download the application: http://bit.ly/WADKYK ENJOY A STOP-OVER TO DISCOVER A CITY When you want to travel to a distant destination, the cheapest plane tickets are often those that include at least one stopover. So, why not take advantage of this stopover to visit one more city? Many companies allow "stopovers" at no additional cost. A stopover allows you to spend one or more days in the city where you stopped before taking the plane back to your final destination. So, when you search for flights on the Internet, indicate that you want a multi-destination flight. Otherwise, do not hesitate to call on the professionalism of a travel agent to find you flights at the best price with stopover without additional fees. FOLLOW HIM @2DIGITALNOMADSF We are a couple in our forties and we decided to resign to go traveling. We will use this space to share our experience. 2digitalnomads.com/fr/ TWEET OF THE WEEK @2DigitalNomadsF Our first days in La Paz ow.ly/1QpJeQ #Bolivia#La Paz#Travel Buzz video A SHABBY HOTEL THAT RIDES ON SUCCESS The Hans Brinker Hotel in Amsterdam is not attractive at all, quite the contrary. But an advertising agency had the good idea of transforming what used to generate complaints from customers into assets for the establishment. And it works. Since then, the hotel has been full. Click on the following link to understand how advertising is used to attract customers: http://bit.ly/THKAg2 The most ethical destinations of 2013 As every year, the American association Ethical Traveler publishes its list of the most ethical destinations to visit. Their choice is based on countries that are at the "forefront of promoting human rights, preserving the environment and supporting civil society, while creating a sustainable tourism industry based on the community". In alphabetical order, the 2013 list of Ethical Traveler includes Barbados, Cape Verde, Costa Rica, Ghana, Latvia, Lithuania, Mauritius, Palau, Samoa, and Uruguay. This year, the association also highlights three "Destinations of Interest" for those looking to explore countries that do not yet have the "ethical" label, but which are implementing major political and social changes. The three countries are Burma, Cuba and Namibia. The full report is available at www.ethicaltraveler.org Auschwitz Death Camp: Record Number of Visitors in 2012 No fewer than 1.43 million people visited the site of the former Auschwitz-Birkenau death camp set up by Nazi Germany in southern Poland in 2012. "This is a record in the museum's 65-year history," the museum said on January 4. During World War II, approximately one million Jews were killed by the Nazis at the Auschwitz-Birkenau camp. "Auschwitz has become a fundamental place of remembrance of the Shoah, reflecting the importance of the history of the Holocaust," said Piotr Cywinski, the museum's director, whose website www.auschwitz.orgwas visited by more than 1.5 million people last year. Having fun with the train window Augmented reality, which is gaining popularity in smartphone applications, is set to make its debut on trains with the Japanese project Touch The Train Window. Using a combination of high-tech devices, passengers will be able to change the scenery passing by the windows as they wish, adding elements such as birds, horses, cars or hot-air balloons that will appear in 3D. However, to take advantage of this system, you will need an iPhone, the Kinect system, OpenFrameworks (an open-source platform for creative programming), a projector and a GPS module. In short, a project that is aimed - for now - more at experienced geeks than at simple travelers. In the meantime, watch the video to see what it might look like: http://bit.ly/UtVBQT DID YOU KNOW? If you want to discover Paris off the beaten track, you can call on a volunteer Parisian who will take you on a two or three hour tour of a neighborhood he loves. This is an opportunity to discover some well-kept secrets and have someone to answer your questions about the daily life of the French and Parisians. The Parisien d'un jour association offers these tours free of charge to foreign tourists, but donations are welcome to contribute to the association's operating costs. For information and reservations: www.parisiendunjour.fr.

## ###ARTICLE\_START### ID:799

Relais & Châteaux on iPad Launched last December, the Relais & Châteaux iPad application - available free of charge in five languages - offers an interactive gallery of 15,000 photos of the brand's 520 hotels and, above all, allows you to book in just a few clicks. The search is done by country and you can also use the "Around me" icon to discover the establishments closest to you using geolocation. To download the application: http://bit.ly/WADKYK ENJOY A STOP-OVER TO DISCOVER A CITY When you want to travel to a distant destination, the cheapest plane tickets are often those that include at least one stopover. So, why not take advantage of this stopover to visit one more city? Many companies allow "stopovers" at no additional cost. A stopover allows you to spend one or more days in the city where you stopped before taking the plane back to your final destination. So, when you search for flights on the Internet, indicate that you want a multi-destination flight. Otherwise, do not hesitate to call on the professionalism of a travel agent to find you flights at the best price with stopover without additional fees. FOLLOW HIM @2DIGITALNOMADSF We are a couple in our forties and we decided to resign to go traveling. We will use this space to share our experience. 2digitalnomads.com/fr/ TWEET OF THE WEEK @2DigitalNomadsF Our first days in La Paz ow.ly/1QpJeQ #Bolivia#La Paz#Travel Buzz video A SHABBY HOTEL THAT RIDES ON SUCCESS The Hans Brinker Hotel in Amsterdam is not attractive at all, quite the contrary. But an advertising agency had the good idea of transforming what used to generate complaints from customers into assets for the establishment. And it works. Since then, the hotel has been full. Click on the following link to understand how advertising is used to attract customers: http://bit.ly/THKAg2 The most ethical destinations of 2013 As every year, the American association Ethical Traveler publishes its list of the most ethical destinations to visit. Their choice is based on countries that are at the "forefront of promoting human rights, preserving the environment and supporting civil society, while creating a sustainable tourism industry based on the community". In alphabetical order, the 2013 list of Ethical Traveler includes Barbados, Cape Verde, Costa Rica, Ghana, Latvia, Lithuania, Mauritius, Palau, Samoa, and Uruguay. This year, the association also highlights three "Destinations of Interest" for those looking to explore countries that do not yet have the "ethical" label, but which are implementing major political and social changes. The three countries are Burma, Cuba and Namibia. The full report is available at www.ethicaltraveler.org Auschwitz Death Camp: Record Number of Visitors in 2012 No fewer than 1.43 million people visited the site of the former Auschwitz-Birkenau death camp set up by Nazi Germany in southern Poland in 2012. "This is a record in the museum's 65-year history," the museum said on January 4. During World War II, approximately one million Jews were killed by the Nazis at the Auschwitz-Birkenau camp. "Auschwitz has become a fundamental place of remembrance of the Shoah, reflecting the importance of the history of the Holocaust," said Piotr Cywinski, the museum's director, whose website www.auschwitz.orgwas visited by more than 1.5 million people last year. Having fun with the train window Augmented reality, which is gaining popularity in smartphone applications, is set to make its debut on trains with the Japanese project Touch The Train Window. Using a combination of high-tech devices, passengers will be able to change the scenery passing behind the windows as they wish, adding elements such as birds, horses, cars or hot-air balloons that will appear in 3D. However, to take advantage of this system, you will need an iPhone, the Kinect system, OpenFrameworks (an open-source platform for creative programming), a projector and a GPS module. In short, a project that is aimed - for now - more at experienced geeks than at simple travelers. In the meantime, watch the video to see what it might look like: http://bit.ly/UtVBQT DID YOU KNOW? If you want to discover Paris off the beaten track, you can call on a volunteer Parisian who will take you on a two or three hour tour of a neighborhood he loves. This is an opportunity to discover some well-kept secrets and have someone to answer your questions about the daily life of the French and Parisians. The Parisien d'un jour association offers these tours free of charge to foreign tourists, but donations are welcome to contribute to the association's operating costs. For information and reservations: www.parisiendunjour.fr.

## ###ARTICLE\_START### ID:800

Towards another socialization in digital format The year started as badly as it ended for the multinational of digital friendship Facebook, which, to mark the passage to the new year, decided to offer its loyal followers an application allowing them to send personalized greetings to their friends at midnight sharp, on the night of December 31 to January 1. Problem: the computer program, called New Year Message Delivery, had a flaw allowing anyone to consult and even modify these private messages, many of which of course contained photos. It was a young British student in communication, Jack Jenkins, who pointed the finger, forcing Mark Zuckerberg's empire to hastily review the security of its "app", in order to protect the privacy of its subscribers. This is because the subject is sensitive in these times. At the end of the year, Facebook had to manage a major crisis after its subsidiary Instagram, a specialist in sharing photos "with style effects", announced a modification of its conditions of use. It was mid-December. With this gesture, the company wanted to grant itself the right to use private photos taken by its users and shared on its network. Subscribers cried out about the intrusion into their privacy. Instagram retreated in less than 24 hours, but the damage was done. According to AppData.com, which measures the number of users using mobile communication tools, Instagram lost 3.5 million users in December, who were clearly outraged by this lack of respect. Facebook's stock ended the year down, largely because of the outcry. There's no doubt about it, we don't mess around with privacy. This was the case in 2012. It will be the case again in 2013, when the plans for commercial exploitation of personal data by the major providers of digital living space, led by Facebook, are about to stir up this type of crisis and, as a result, redefine the contours of socialization in virtual universes. The loss of trust by users in traditional providers risks serving the interests of other tools such as Diaspora, which has been seeking its place in the new social and technological equation for several years. Described as the anti-Facebook by the New York Times when it appeared more than two years ago, this other network, based on the principle of free software, offers decentralized management of content shared by its subscribers. As a result, instead of putting their private lives on the computer servers of a private company seeking to profit from them, Internet users keep this data on their own computer. Diaspora, created by four students from New York University, proposes a "humanization" of the social network principle in digital format. Community-based, its structure is currently being developed by a constellation of programmers spread across the planet. The new form of digitalization of daily life could also come from elsewhere, such as Asia, where a new generation of social networks is currently emerging. WeChat, imagined by the Chinese company Tencent, is one of them. A mobile application for sharing your impressions, your moods, your photos or your videos with your friends, WeChat has enjoyed impressive success since its launch in 2011, reported the British daily The Guardian a few days ago. And not only in Asia, but also in the United States and Great Britain, where thousands of users are beginning to succumb to its charms. From South Korea, Kakao Talk, which claims more than 40 million subscribers to date, could also experience the same fate by extending its influence beyond the borders of the continent where it took shape. Partly because of its ability to fit into a world where communications increasingly take place via portable devices, but also its desire to reverse the paradigm imposed by Facebook. WeChat, Kakao Talk or even Line, a Japanese network, in fact offer their subscribers the opportunity to escape the sacrosanct logic of the relationship - which the Zuckerberg empire and others are seeking to exploit commercially - to concentrate on conversation. The basis of socialization, in other words. It was probably worth taking advantage of last year. In 2013, the pleasure of getting lost, physically, of course, should become even rarer, under the effect of the vast project of mapping inhabited space initiated by the giant Google. It started with roads, streets, railways (Google Maps), then there was the third dimension (with Google Street View), and now there are no more limits. Last December, the American multinational launched its geolocalized mapping of several major ski resorts around the world. This followed the digitization of several underwater areas, including the Great Barrier Reef, major historical monuments, including the pyramids of Egypt, that of the Milky Way - yes, yes! -, or even several interior spaces composed of airports, large businesses and a few museums. Natural, built, remote, inaccessible, the environment will once again in 2013 fall into Google's servers, which wants to record and digitize every corner of it. A little to help humans answer the contemporary question "where are you?", but also to ensure the proper development of several of its services, such as the driverless Google car and Google glasses, which dream of explaining our direct environment to us through augmented reality, this superposition of virtual information on the reality that is before our eyes. Two products, two concepts that are based on the same thing: the digitization of space in all its contours. Towards a virtually fulfilled solitude History is an eternal recommencement and an American company will demonstrate this in 2013 with Hatch, a small virtual pet that proposes to take shape and life in your so-called smart phone. A contemporary reinterpretation of the Tamagotchi, this little Japanese beast made of binary codes and mounted on a key ring that had to be fed, entertained, made to sleep - it was in 1996 -, Hatch advances into the social environment of the moment with the same intentions, namely to fill the void of human existence, but above all with a high risk of dependence and addiction, in a hyperconnected world where, ultimately, whatever Gilbert Bécaud sang about it, solitude really does exist. Oh paradox. Towards an encouraged ubiquity (during the show) Above all, do not turn off your cell phone. Since December 27, the Guthrie Theater in Minneapolis in the United States has decided not to fight against modernity, but rather to take advantage of it. How? By reserving seats in its theater for people who can't do without their virtual networks for more than three minutes, and this, for a few performances of the play currently on the bill, The Servant of two Masters by Goldoni. They are called Tweet Seats. The house is promoting them to attract a younger clientele, addicted to techno, but above all to encourage spectators who have opted for these seats to tweet during the show. It's cheap advertising. The trend was started in recent months by several other American presenters, including the Cincinnati Symphony Orchestra and the Palm Beach Opera. To name but a few. In 2013, under pressure from culture consumers now as concerned with what happens on stage as with the images or videos that it will allow them to share on social networks, the phenomenon could spread to other places and theaters, there as well as here.

## ###ARTICLE\_START### ID:801

Franck Ghitalla is a cartographer. The profession has a strong resonance with the Renaissance and the conquest of the Americas or the Indies. However, there is nothing old-fashioned in his research and teaching work or his person. The continents that he helps to map, represent and analyze are among the most modern there are: the Web, social networks, blogs, or any other pile of gigantic data that we are willing to entrust to him. "Whoever represents the world owns it," likes to remind the man who, at 47, is a pioneer in this part of information science in France. By "map", we mean a mosaic of more or less large and colored disks, connected by more or less thick arcs. The nodes of this network can be websites, scientific articles, researchers, projects, research centers, people... The links between them are html links, quotes, collaborations, contracts. These maps show who is close to whom; who is "central" or "isolated" in the nebula; which area is rich, nascent, dead... "As soon as you show someone this kind of map, they start by looking for where they are. Then the discussion gets going," notes the man who teaches "technologies for documentation and indexing in hypermedia" at UTC Compiègne. This technique sometimes reveals the invisible. Franck Ghitalla has thus mapped public scientific databases and identified the omnipresence of the American National Science Foundation. By working on the French legislative corpus since Napoleon, he and his students identified the importance of the issue of women in post-war laws, then that of the theme of immigration or delinquency, more recently. For educational purposes, he also likes to show the map of directors of CAC 40 companies with its "multi-employers". "Mapping is a powerful tool for bringing a bit of order and synthesis to complex universes that seem impenetrable. "It's the compass of the digital universe," says the researcher, who often has a poster of his maps to unroll. This former high school French teacher, who became a researcher in linguistics, was not destined to delve into the heart of information technology. "It came from my class. I liked to offer my students subjects that stimulated their creativity. For example, I asked them to invent a language. And one day, at the end of the 1990s, I had the idea to ask them to describe the Web without a search engine. To tell me what shape the Web has and how to find their way in this space," he recalls. At the same time, on the other side of the Atlantic, researchers in computer science, physics and statistics were asking themselves the same question. Web science, in the early 2000s, would emerge from it with figures who became famous - Jon Kleinberg, Albert-Laszlo Barabasi, Duncan Watts... The project fascinated his small group of engineering students from Compiègne. They meet in the evening and even at night to discuss these fundamental questions that combine hard sciences but also social sciences. They develop their own web crawlers to navigate from link to link and explore this new world. The university server almost collapsed. Another time, the university's finances were threatened after a robot started requesting paid pages from a database of scientific articles... In 2005, the group came out of hiding by mapping, on the Web, the place of the "no" in the referendum on the European Constitution. The domination of this current of opinion was not in doubt. It will also be seen at the ballot box. This success convinced the young pioneers to create their own company, Linkfluence, which still exists and specializes in opinion studies drawn from knowledge of the geography of Internet communities. "Franck was a bit of a guru for us. "He was at the origin of a real school of thought in France," emphasizes Guilhem Fouetillou, one of the co-founders of Linkfluence. "He is a great teacher at passing on his passion. He is also a visionary who spotted the emergence of network science very early on," says Sébastien Heymann, a former student currently setting up a business. With his atypical teaching methods, based on the creativity of students, he has achieved great success. His students can be found at Yahoo!, LinkedIn, Linkfluence, INA, the Sciences Po medialab, etc. A free software, Gephi, for graph visualization, which he helped to imagine, is used all over the world, notably by major universities such as Stanford. His blog, "Ateliercartographie.wordpress.com", has given him an international reputation. In Nantes, where he is from, he advises a new information visualization start-up, the Iceberg workshop. He now defines himself as "an innovative project leader". "A real profession but not recognized," he admits. "It's time. Young people are well trained and motivated. There is a technical re-enchantment with mobiles, touch interfaces... But we don't have a culture of innovation. It's hard to move from the study project to the industrial project. The design that is essential to be in phase with uses does not belong to our engineering cultures," he regrets, defending an open innovation, bottom-up from the base, flexible and unplanned. In the same way as the one he inspired in Compiègne and which he is also developing in Nantes, where he teaches at the School of Design. When he has managed to create this new profession, he will perhaps return to his passion for mosaics - a way, as with maps, of bringing together scattered elements to give them meaning.

## ###ARTICLE\_START### ID:802

In 2000, Alexis Kauffmann was a mathematics teacher in Bobigny, after a stint in the Central African Republic, in a high school. He was a nomad, a "Frenchman by chance", as he liked to define himself: his two parents, of foreign origin, met in Paris. Alexis Kauffmann also encountered the great story of his life by chance. The Internet had barely arrived in homes and, while browsing a web page, he discovered "libre software". "It is software whose use, study, modification and duplication are authorized and encouraged, a bit like the transmission of knowledge at school", he explains. He also began to use it with his students. "That's where the Internet fairy intervened. I put my notes on a site, and they immediately resonated. A modest personal project then unfolded to become Framasoft, in a way my life's work", confides Alexis. Framasoft was not yet what it has become today: one of the main French-language portals for free software. But the die was cast. That's when our teacher was transferred to the prestigious French high school in Rome. "What serenity, what a contrast with my middle school in the Paris suburbs!" exclaims Alexis. Less tired, he took advantage of his free time to develop Framasoft. Other people joined him on a voluntary basis and, finally, an association was created. The years went by; so did the students. "I love this job, but it freezes you in time. The start of the school year is an eternal restart," says Alexis. "Our pedagogical freedom is real, but remains confined to a restrictive space-time: on Tuesdays, from 10 a.m. to 11 a.m., I invariably had the 5e-4 in room 9. Neither I nor my students could escape it. - It was the confrontation between the - lightness of the Internet and the inertia of an institution." At the same time, Framasoft is making its way thanks to the membership of hundreds of people connected by the Internet. "A forum, a blog, USB keys, DVDs, etc. have been added to a simple directory; there is a collection of free books, because the model can be extended to other areas, and that's what makes the adventure exciting," explains Alexis. The downside: an increasing difficulty in reconciling everything. "I had to make a choice. My situation in Rome was idyllic in many ways," Alexis admits, "but the evolution of Framasoft had ended up giving me the image of a gilded prison. And then I had always told myself that being a teacher all your life means missing out on a certain reality." He then decided to leave school. Since the summer, Alexis has been a permanent employee of the Framasoft association. "We get paid by asking people to support us if they think that the service provided on the Internet, freely accessible to all, is worth it. It's the gift economy." It's difficult to describe his work, but it's not the least of its attractions. "I do journalism, communication, technology, project management, community animation, event coordination," he explains. You have to have a broad range of skills. "Economically, it's difficult," Alexis admits. But he is fulfilled: "We need to organize the world differently, with less competition and more cooperation; free software and its culture are part of this." Today, he is sometimes invited to schools to talk about free software. "I like meeting up with students, seeing their eyes widen when I say that this software allows us not to be slaves to the machine," he says. "But I also like being able to leave the school when the bell rings to mark the end of my talk." Margherita Nasi

## ###ARTICLE\_START### ID:803

That said, things may be changing, as we are seeing the emergence of relatively cheap security systems that are very easy to use and available to the general public without any formalities. The American company Silent Circle, based in Washington, has been offering a full encryption service for all forms of electronic correspondence for a few weeks: phone calls via mobile or computer, text messages, emails, video conferences. During a communication between two Silent Circle subscribers, the encryption keys are exchanged directly by the two devices, then destroyed after a single use. The ultimate refinement: the encrypted data looks like ordinary audio and video streams, which avoids attracting attention in the event of network surveillance. Deleted messages In addition, calls and messages are automatically deleted from the device's memory. Starting in 2013, Silent Circle customers will be able to use their number to call ordinary phones -- but in this case, only the portion of the communication between the subscriber and the server will be protected. In order to secure its network as much as possible, Silent Circle has installed its servers in Canada and Switzerland, two countries considered to be very respectful of citizens' privacy. In order to be independent of anyone, its founders financed the installation with their own funds, without resorting to a bank or a venture capital company. An extraordinary team The Silent Circle team, which consists of 27 people, is extraordinary. Its director, Michael Janke, was a member of the Navy Seals, the elite troops of the American Navy, for twelve years, then an expert in communications for special operations. He was joined by another Navy Seal, as well as by a former marine and a former officer of the British Special Air Services (SAS). In addition, he managed to hire Philip Zimmermann, a libertarian geek who, twenty years ago, invented Pretty Good Privacy (PGP), the first email encryption software, and distributed it for free on the Internet. However, at the time, the United States government considered encryption software to be weapons of war. A criminal investigation was launched against Mr. Zimmermann for illegal arms exports. The charges were dropped after three years of proceedings, but in the meantime Mr. Zimmermann had become a world-renowned hero of freedom of expression on the Internet. By bringing together professionals from such dissimilar backgrounds, Silent Circle hopes to attract all types of customers. Michael Janke wants to offer his service primarily to soldiers on foreign operations, businessmen, members of human rights organizations and "oppressed citizens" from all over the world who need to hide from their country's police. In fact, anyone will be able to take out a subscription, including to escape surveillance by the American authorities. This possibility poses no problem for Michael Janke: "We are neither judges nor jurors, it is not up to us to decide who has the right to do what." And patriotism? That said, he acknowledges that the police and the US secret services do not look favorably on his activity: "They have come to ask me where my patriotism has gone, but faced with someone like me who has served his country for so long, this argument falls flat. I tell them that they will have to find another way to investigate suspects. I lived for years in third-world countries, I saw that there citizens have no means of protecting their privacy, it is frightening." In fact, according to him, no region is safe: "If you travel between France and two or three neighboring countries, there is a 99 chance out of 100 that your electronic messages will be intercepted and stored somewhere." Michael Janke knows that if a client is investigated by a criminal investigation, he will probably have to open his files, but he has found a simple way out: "To avoid giving away information, you simply don't have it. Our servers don't keep any trace of communications, and our customer files only contain their username, password and the telephone number we have assigned to them. We don't even have their credit card number, because we go through Stripe," a California-based online payment company. Open-source software It remains to be seen whether the system is as efficient and secure as Michael Janke claims. His answer is immediate: "Our software is open source [open-source software], external experts can verify its integrity and effectiveness at will." After six weeks of operation, Silent Circle claims to already have tens of thousands of customers in 91 countries. In addition, police services in several Western countries have signed up for subscriptions: "On the one hand, we make their job harder, but on the other hand, we help them secure their own communications." In the future, Silent Circle will also offer its customers a Virtual Private Network service, which allows them to surf the web without being detected. Michael Janke, for his part, secures his own communications with Silent Circle and other systems: "We have become targets, that's inevitable."

## ###ARTICLE\_START### ID:804

Let's say it right away, this article is not distributed under a Creative Commons license. If it were, we would choose CC-BY-NC, which allows non-commercial reuse and authorizes the modification and partial reuse of a creation by anyone online. The principle of Creative Commons (CC, for short), which celebrated its tenth anniversary yesterday, is quite simple: it responds to the all-out circulation of creations on the Internet (music, video, photo, text, etc.) by proposing to attach a declaration of ownership and flexible reuse conditions. Informal. Created on the model of the free software of the GNU project, thought up by Richard Stallman in the early 80s, Creative Commons exists alongside other so-called free licenses, such as GPL or Art libre. These are sometimes more restrictive, where CC allows paid trade as well as informal exchange. The important thing here is that the authorship of a work is always respected. Over the course of a decade, these CC licenses have slowly spread, until they have reached the doors of the general public today. "When I joined Creative Commons France nine years ago, we thought it was a project for researchers, in particular to allow the dissemination of the work carried out to the public," says Mélanie Dulong de Rosnay, a research fellow at the CNRS and legal manager of CC France. But, very quickly, we had contacts with artists, publishers... Today, the questions have evolved and have become more technical. A lot of teaching and education are still needed," but free licenses have entered their mature years. We are thus encountering more and more filmmakers, amateur or professional photographers (on the Flickr site in particular) who are choosing a Creative Commons license to regulate the circulation of their creations on the Internet, based on the idea that they will circulate anyway. In 2009, the Wikipedia encyclopedia also decided to place all of its content under CC-BY-SA license. Two years later, the YouTube video platform converted in turn. Sacem itself, the venerable house responsible for collecting and redistributing the royalties of music authors, launched a partnership with Creative Commons in January 2012. A musician can now deposit his music with Sacem under CC license for all non-commercial uses (blogs, social networks, peer-to-peer in theory, etc.). In the case of broadcast on the radio or in a film, for example, the work will regain its "classic" rights and the expected revenues. With "530 works" filed in just under a year by 45 members, out of some 150,000 total filings, "the use of CCs remains very marginal," comments Jean-Noël Tronc, the general director of Sacem, today. "But it is a movement that must be supported, a way of acknowledging that free licenses are an interesting promotional model." "Disinterested." Carine Adsuar plays in the Bubblies, a Toulouse group that has been active for twenty years, which decided to "switch its entire Sacem catalog to Creative Commons as soon as possible. We have always wanted our music to circulate, we consider that piracy is not only negative. But CCs are only part of the solution for artists. They allow disinterested exchanges to be clarified, to let our fans legally share a song. For the rest, we have to go back to the old system if we want to stay with Sacem." That is to say, copyright, which considers that any use of a work deserves remuneration and that the rest is illegal. Piracy. The still rigid initiative of Sacem clearly shows the difficulties that remain to be overcome today, to merge Creative Commons licenses and the old economy. "Our artists still have to make a choice, as if the two philosophies were incompatible," regrets Pierre Gérard, co-founder of Jamendo, one of the main platforms for distributing music under CC license. But Creative Commons are gradually spreading, in all sectors, a new perspective on intellectual property, now differentiated from physical property. These licenses could thus play a central role in thinking about piracy. "As free software did not kill Microsoft, free licenses will not replace copyright as we know it, continues Pierre Gérard. There is room for a world of exchange alongside the commercial world."

## ###ARTICLE\_START### ID:805

The scandal surrounding General David Petraeus's extramarital affair, which forced him to resign as CIA director, broke out because the FBI discovered compromising emails while investigating a related matter. However, the general and his mistress were using technical tricks that they believed would allow them to evade possible surveillance. The lesson of this story is clear: if the head of the CIA was unable to protect his private correspondence, who is safe? That said, things may be changing, as relatively inexpensive security systems are emerging that are very easy to use and available to the general public without any formalities. The American start-up Silent Circle, based in Washington, has been offering a full encryption service for all forms of electronic correspondence for several weeks: phone calls by mobile or computer, text messages, emails, video conferences. For smartphone encryption, the customer simply needs to download two free apps (text and audio) and then sign up for a $20 (15 euros) monthly subscription on the Silent Circle website. Alternatively, they can purchase a printed card with an activation code, which will be mailed to them. They will then be assigned a new phone number that they can use alongside their existing number on the same device, via a 3G or Wi-Fi network. When two Silent Circle subscribers communicate, encryption keys are exchanged directly by both devices and then destroyed after a single use. The ultimate in sophistication: the encrypted data looks like regular audio and video streams, which avoids attracting attention in the event of network surveillance. In addition, calls and messages are automatically erased from the smartphone's memory. Starting in 2013, Silent Circle customers will be able to use their number to call regular phones - but in this case, only the portion of the communication between the subscriber and the server will be protected. In order to secure its network as much as possible, Silent Circle has installed its servers in Canada and Switzerland, two countries considered to be very respectful of citizens' privacy. In order to not depend on anyone, its founders financed the installation with their own funds, without resorting to a bank or a venture capital company. The Silent Circle team, which has 27 people, is extraordinary. Its director, Michael Janke, was a member of the Navy Seals, the elite troops of the American Navy, for twelve years, then an expert in communications for special operations. He was joined by another Navy Seal, as well as by a former marine and a former officer of the British Special Air Services (SAS). But, in addition, he managed to hire Philip Zimmermann, a libertarian geek who, twenty years ago, invented Pretty Good Privacy (PGP), the first email encryption software, and distributed it for free on the Internet. However, at the time, the United States government considered encryption software to be weapons of war. A criminal investigation was launched against Mr. Zimmermann for illegal arms exports. The charges were dropped after three years of proceedings, but in the meantime Mr. Zimmermann had become a world-renowned hero of freedom of expression on the Internet. By bringing together professionals from such dissimilar backgrounds, Silent Circle hopes to attract all types of customers. Michael Janke wants to offer his service primarily to soldiers on foreign operations, businessmen, members of human rights organizations and "oppressed citizens" from all over the world who need to hide from their country's police. In fact, anyone will be able to take out a subscription, including to escape surveillance by the American authorities. This possibility poses no problem for Michael Janke: "We are neither judges nor jurors, it is not up to us to decide who has the right to do what. » That said, he acknowledges that the police and the US secret services do not view his work favorably: "They have come to ask me where my patriotism has gone, but faced with someone like me who has served his country for so long, this argument falls flat. I tell them that they will have to find another way to investigate suspects. I lived for years in third-world countries, I have seen that citizens there have no means of protecting their privacy, it is frightening." In fact, according to him, no region is safe: "If you travel between France and two or three neighboring countries, there is a 99 chance out of 100 that your electronic messages will be intercepted and stored somewhere." Michael Janke knows that in the event of a judicial investigation targeting a client he will probably be forced to open his files, but he has found a very simple way out: "To avoid giving away information, you just have to not have it. Our servers do not keep any logs of communications, and our customer files only contain their username, password, and the phone number we have assigned to them. We do not even have their credit card numbers, because we go through Stripe,” a California-based online payment company. The question remains whether the system is as efficient and secure as Michael Janke claims. His answer is immediate: “Our software is open source [free software], external experts can check its integrity and effectiveness at will.” After six weeks of operation, Silent Circle claims to already have tens of thousands of customers in 91 countries. In addition, police departments in several Western countries have signed up for subscriptions: “On the one hand, we complicate their task, but on the other hand, we help them secure their own communications.” In the future, Silent Circle will also offer its customers a Virtual Private Network (VPN) service, which allows them to surf the web without being detected. For his part, Michael Janke secures his own communications using Silent Circle and other systems: "We have become targets, it is inevitable."

## ###ARTICLE\_START### ID:806

Welcome to the sharing economy! The crisis and the Internet have given birth to a new consumer citizen who is trying to escape traditional commercial channels in favor of the direct exchange of goods and services. He is no longer content to look for the best low-cost deal on price comparison sites. Out of conviction or necessity, he prefers the temporary rental of a car, a drill or a washing machine, depending on his needs, to an expensive and definitive purchase that most often involves credit. His mantra is no longer ownership, but rental for use. User rather than buyer, he is also becoming a service provider. "Consumption generates less and less satisfaction. The new models do not break with consumerism: they re-enchant it. It's more fun, it costs less and it can even bring in money. What interests consumers is not the products but their use," explains Philippe Moati (read the interview), co-president of the Society and Consumption Observatory. When you realize that your car spends 95% of its time in the parking lot, car sharing becomes obvious... Washing machine. This small sharing revolution, which has its prophets, such as the Australian Rachel Botsman, author of the book What's Mine IsYours (2011), is inseparable from the collaborative spirit of the Web. "The generation that grew up on the Internet cares very little about the aversion of classical economic theorists for sharing. They exchange for the pure and simple joy of sharing with others," explains, somewhat idyllic, the American alter-economist Jeremy Rifkin in his latest book, The Third Industrial Revolution. Because, the collaborative economy is above all the latest business model in vogue in the land of start-ups. Carpooling, Zilok, Voiturelib, or Airbnb are the most visible companies of this movement. In France, the movement is federated around the Ouishare collective, which is at once a blog, online media, think tank and organizer of meetings in Europe. There you come across free software activists... and young entrepreneurs trained in the best business schools. Anti-capitalist? Indignant? They don't recognize themselves in these categories. They say they want to consume better and create activities "that make sense". If paying for sharing allows for a more responsible economy, a more sustainable society, with a friendly atmosphere to boot, well, so much the better... Difficult to measure, the phenomenon is starting to count, in France as elsewhere. More than 2.2 million members are registered on Covoiturage, which has also launched in Spain, Italy and the United Kingdom. There were only one million in April 2011. Car rental between individuals is arousing the same enthusiasm: in Paris, around each metro station, you can find three vehicles made available by their owners on Voiturelib, according to Paulin Dementhon, founder of the site. Fuel prices, traffic jams, pollution: so many reasons that make the automobile one of the privileged terrains of the sharing economy. "Rendezvous". But, thanks to the Web, the collaborative economy is thriving in many other sectors, with sales, rentals, but also bartering and gifts between individuals. Short-term rentals of rooms or apartments are booming in all major cities. One of the leaders, the American Airbnb, launched in San Francisco in 2009, has sold more than 10 million nights worldwide, including 5 million in the first half of 2012 alone! After New York, Paris is the city that offers the largest number of accommodations on Airbnb. But you can also rent bikes, objects, tools on Zilok, your washing machine on Machine du voisin, sell your cooked meals on Supermarmite, or your knowledge by organizing a workshop on Cup of Teach, "the first university between individuals", created in June. But entrusting your car to a stranger is not without risk. Before launching Voiturelib, Paulin Dementhon had to convince an insurance company (MMA) to cover temporarily rented vehicles. Airbnb also offers a large compensation in the event of damage to a rented accommodation. Share, but without naivety. On Covoiturage, created in 2006, today the most developed of these start-ups, the service was initially free for the general public. The site tried to make its business profitable by selling its service to companies to encourage carpooling between their employees. But it was the offer between individuals that developed the most. "Passengers put an option on a trip and did not show up for the appointment, and drivers turned away from the service," explains Frédéric Mazzella, founder of the site. A problem solved by online prepayment of the journey, on which Covoiturage takes a commission... This is the model adopted by collaborative consumption sites: a peer-to-peer marketplace, which connects suppliers and demanders, collects the payment, reverses it and takes a commission. Limited margins but tangible income, provided that a critical mass of members are recruited so that the exchanges are active. Investors believe in it: Voiturelib raised 2 million euros in September and Zilok 1.5 million from Jaïna Capital, the fund of Marc Simoncini (Meetic). Jobs. The sharing economy does not stop at consumption. It extends to distribution, by eliminating intermediaries; to finance, with "crowdfunding" or to the design and production of open source objects thanks to new 3D printers (EcoFutur of October 1). The generalization of this sharing economy is likely to have an impact on traditional circuits. "The collaborative economy will kill thousands of jobs. And then?" was the recent headline in Ouishare. Traditional players are trying to jump on the bandwagon. Citroën has opened the Multicity portal, which encourages its customers to rent their vehicles to other individuals via a partnership with Zilok auto. In June, a discount was offered to buyers of the new electric C4 if they rented it. Isn't the manufacturer itself sabotaging its sales? It seems to have understood that being able to rent your car is becoming a sales argument. "This is the first time that your car has earned you something," boasts Citroën. Similarly, in distribution, Boulanger has launched its Lokéo household appliance rental service, with the slogan "No more ownership and long live use!" The public authorities still seem far from measuring the phenomenon and its social, fiscal and competitive implications. The Minister of Tourism, Sylvia Pinel, contacted by hoteliers unhappy with competition from individuals, has promised to change the legislation. And Bercy has just ordered a study on collaborative consumption. Antonin Léonard, host of Ouishare, is convinced: "In five years, we will have a Ministry of the Collaborative Economy." Illustrations: Anne-Lise Boutin

## ###ARTICLE\_START### ID:807

"Sharing is clean, lively, ingenious, post-modern. Owning is dull, selfish, timid, backward." This is how the New York Times explained the sharing economy in 2009, in the midst of a financial meltdown made in Lehman Brothers. A way of bringing back into fashion the famous slogan issued by Pierre-Joseph Proudhon in 1840, "property is theft"... But the comparison with the quiet father of the anarchist movement obviously stops there. The pioneers of the collaborative economy do not belong to the past. They are of the 21st century. In the era of the Web and open source, their slogan would rather be "I share on the Internet therefore I am". For the econoclast Jeremy Rifkin, this online collaborative movement is downright one of the pillars of the Third Industrial Revolution (title of his latest book). Here we are in a world "where access eclipses ownership, where the supplier remains in possession of the good to rent it to users" when he wishes. The decentralizing magic of the network allows each connected individual to become an autonomous economic actor. Rifkin predicts "the transition from the seller-buyer relationship to the supplier-user relationship, and from the exchange of properties on markets to access to services for a fixed time in networks." But we are far from Proudhon or Fourier. No libertarian and socialist utopia among users of collaborative work. Some smart startupers smell a potentially lucrative business there. And ownership will remain the consumer's number one value for a long time to come. In terms of sharing, it is more a new economy of low-cost resourcefulness that is making its nest in the crisis outside of traditional market channels. One would be tempted to say "why not?" if everyone wins. But of course it is utopian.

## ###ARTICLE\_START### ID:808

November 27 was the international launch of TYPO3 CMS version 6. In Quebec City, the presentation of this new version was made by Patrick Gaumond, of Infoglobe, a division of Libéo, a certified integrator of this free software designed for the end-to-end management of medium- and large-scale websites. Since there was no version 5, the new version includes a whole host of improvements for site managers. According to Mr. Gaumond, this is a very flexible software for creating multilingual sites. He gives the example of Sony Entertainment, which migrated its major website in 21 languages from proprietary software to the free TYPO3 software in three months and 18 days, a feat, it seems. In Quebec, 78% of government sites using the CMS use TYPO3. While there is still a long way to go to establish a tradition with free software on this side of the Atlantic, in Europe, it is another story. This software relies on a core of 40 designers at the parent company and a community of more than 2000 other developers for extensions and modules of all kinds. Websites: www.infoglobe.ca and www.typo3.org TRIED Live a solo and real-time space strategy adventure, control combat fleets and space stations, find resources and exploit them to build your army, develop technologies to improve your ships, this is what the game Gemini Wars offers. The story takes place in the second half of the 22nd century when a commander returned from exile takes up service again during the war between two factions: the Space Federation and the Free Worlds Alliance. During this adventure, the commander must climb the ranks of the Federation to increase his prestige and control more and more powerful ships. The game resembles other more terrestrial real-time war strategy titles where you have to accumulate resources and build your army. In this case, the images of space have a little something interesting, but there is no very fine definition of the ships. The graphics in general are good for the computer, but we are far from high definition. It is interesting to switch with a click from the map of the global strategy of the area to the combat mode, where we see more closely the combat between the ships and the armament of the space stations. The construction mode of the spacecraft and stations is quite random. Elements are built at high speed and others, very slowly, for no apparent reason. You have to plan the number of units to send into combat and strengthen the defensive position of your space base, before launching the assault. There is a progression in difficulty throughout the single-player campaign. The game isn't bad, but I'll give it a middling rating since it's a fun, if not a revelation, game. I tested the game for PC and Mac on the Steam entertainment platform (http://store.steampowered.com), where it sells for $20. Website: http://geminiwars.camel101.com SU After I published my review of the PowerUSB programmable power strip, the president of the Texas-based company, Shariq Hamid, pointed out to me that there was likely an error when I tested it. He was right. The programmable power strip retains its programming when the USB cable is unplugged. I ran another round of tests to reproduce my mistake, which turned out to be a basic one. Before unplugging the USB cable, I would quit the application in the Mac menu bar or the PC notification area, which would cancel the programming. Because of the many tests I do within a month, there are often too many software programs running in the background with a tool in the PC notification area or the Mac menu bar. Usually, I systematically quit them without having any problem. However, by disconnecting the USB cable from the power bar before quitting the software, everything works perfectly and the programming of the slave outlets remains active until you choose to modify it. My apologies to Mr. Hamid and the readers. The product works perfectly, it was a Code 18 type error, that is to say made by the guy 18 inches from the screen.

## ###ARTICLE\_START### ID:809

Do it yourself (DIY) enthusiasts meet today at the Imaginarium, 8,000 m2 dedicated to the creative industries (1) located at Plaine Images in Tourcoing (North), not far from Fresnoy, National Studio of Contemporary Arts, and the headquarters of Ankama, the French leader in multiplayer online gaming. Drone.The Imaginarium aims to be a laboratory that mixes businesses, research and art, a convergence intended to promote innovation and the emergence of tomorrow's content. The atypical place, which has entrusted its artistic direction to Pierre Giner, a familiar with new technologies, is moving on to practical work with the "Do It Yourself" exhibition which is on display until December 16 on the ground floor of the building. It aims to transcribe the movement that runs through contemporary digital creation, in art as well as in crafts. "From their garage or in their home studio, in fablabs and hackerspaces, DIYers 2.0 are learning to do alone and collectively what an entire production line used to take care of," the organizers explain. With demonstrations to back it up, the exhibition designed by the digital media Poptronics invites you to dive into this creative mess and get your hands dirty during workshops (creating your Pirate Box, building a drone or synthesizer from old electronic toys, transforming clothes into a game interface, etc.). The exhibition covers the spectrum of practices, from urban gardening to 3D printers, from video games to smart textiles, showcasing artists who explore these technologies. You can discover the Reactor project by Maurin Donneaud, a knit that transforms into a musical instrument when you twist or pull it. Nervous System has designed a 3D printed jewelry piece with a design inspired by plant patterns, which you can customize online. The ironic Turbothèque, by noise musician Arnaud Rivière, offers a way to cope with the explosion of supply: this revolutionary listening terminal allows you to assimilate up to 80 records per week. "Rather than listening to all the tracks on an album one after the other," explains the inventor, "the Turbothèque superimposes them for simultaneous and optimized listening." Sharing. Abandoning the race for equipment, DIY artists opt for recycling, diversion, and the development of their own low-tech games. Today, from 10 a.m. to 6 p.m., artists and entrepreneurs, amateurs and professionals, meet for a round table around this new relationship with innovation, based on sharing, transdisciplinarity and open source. Even lunch will take a collaborative turn with Shu Lea Chang's participatory soup, where everyone is invited to bring their favorite ingredient. And will end with the improvisation of Arnaud Rivière, filmed live and in macro by the videographer Jérôme Fino, author of the splendid series "Eye for Ears". (1) www.imaginarium-society.org

## ###ARTICLE\_START### ID:810

Quietly, a sound compression technology is spreading, sweeping away its competitors, the best known of which is the MP3 format, the star of music file exchanges on the Web. Its name is Opus. In September, this "codec" (a program for encoding and decoding files) was recognized as a future Internet standard by the Internet Engineering Task Force (IETF), the technical working group of the Web. In October, the Firefox browser (version 16) recognized ". opus" files and could therefore play them without the need for additional software. Various quality tests have shown the superiority of this new audio codec for a wide range of uses, from mobile or Internet telephony to listening to files on a computer or a portable music player, including videoconferencing, radio or streaming. All these applications differ in their capacity to process a certain amount of information. In general, a music file requires some 128,000 bits per second, while a telephone conversation only needs 16,000 bits per second. The art of compression is therefore to retain only the essential bits. "Opus is a kind of Swiss army knife of sound processing, because it is effective for a wide range of bit rates, and therefore functions," explains Jean-Marc Valin, one of the three developers of the format with Koen Vos and Timothy Terriberry. "The surprise was to see that the result was even better than those of formats like MP3, whereas initially we were more interested in low bit rate applications," notes Jean-Marc Valin, an employee of the Mozilla Foundation, like Koen Vos, and member of another non-profit foundation, Xiph.org, specializing in multimedia codecs for the Internet. The idea dates back to 2007 with the development of two different technologies, Silk and Celt, designed to compress voice and music respectively. The first is used in the Skype web telephony software. In 2009, the two projects merged to form Opus. As with any compression format, the aim is to avoid redundancies and unnecessary information (silences, inaudible frequencies, etc.). To do this, Opus has improved, for music, a technique for transforming a wave into its frequencies. As for voice, Opus is based on a model for predicting a sound from previous samples, which reduces the amount of useful information. Together, these techniques also reduce the decoding time, which is around 200 milliseconds for an MP3 file, compared to 5 to 20 milliseconds in the case of Opus. Hence the interest in Internet conversations. The IETF has also included Opus as a recommended audio codec in the future Web-RTC system, which will allow videoconferencing using your browser, without additional software. Another advantage of Opus: it is a free format that can be used, copied and modified without restriction. It is also free, unlike MP3, for example, which users are often unaware of the fact that it is subject to royalties paid by manufacturers of portable music players or computer operating systems. "For Mozilla, which supports the development of Opus, this free software characteristic is important, so that the Web remains a universal platform for accessing texts, images, sounds or videos," explains Tristan Nitot, president of the Mozilla Europe association. With the same "free software" philosophy, that is to say, attached to free software, the Opus team is now tackling the writing of a video codec.

## ###ARTICLE\_START### ID:811

App.net, the paid Twitter "We sell our product, not our users." It was with this maxim that the new social network App.net set out in August to attack Twitter. According to its creator, Dalton Caldwell, Web 2.0 and its free model financed by advertising are a "disappointment." According to him, the time has come to create a new social network financed exclusively by a subscription system, which will never use its members' data for advertising targeting, and whose developers "will spend 100% of their time improving the service for their members, not for advertisers." This service is therefore App.net, an almost exact copy of Twitter: same short message system (with a limit of 256 characters instead of 140), same presentation of profiles. Unlike Twitter, you have to pay to participate in App.net and have the assurance of never being subjected to advertising. The service offers two pricing plans for the public ($5 for a month or $36 for a year), and one for developers ($100). The beginnings are encouraging: App.net has exceeded 20,000 paying users in two months. Above all, Twitter application developers, dismayed by the new rules of the social network, are starting to adapt their applications for App.net. Pheed, the darling of the stars This new social network arrived in October. It is based on a simple observation. On Facebook and Twitter, the most followed accounts are run by stars. Rather than publishing and sharing statuses, photos and videos for free, Pheed offers to charge their fans, and to give them half of the revenue thus generated. Access to a paid Pheed ranges from $1.99 to $34.99 per month, but it can also be free, since any Internet user can create their page. For its launch, the site convinced around 200 personalities to create their page, including musician David Guetta, actress Miley Cyrus and starlet Paris Hilton. The nine-person team behind the project is based in California. It has invested $2.5 million and is aiming for 10 million users, both free and paid. Diaspora, the free project What if everyone could create their own social network with their loved ones, without advertising, and with the certainty that their data would never be exploited by advertisers? For two years, the animators of the Diaspora project have tried to fulfill this promise. Presented as an anti-Facebook at its beginnings, Diaspora is in fact a software, which allows the creation of small social networks independent of each other. The project has raised more than $200,000 from Internet users interested in the approach, including a very notable donation from Mark Zuckerberg, the founder of Facebook. But since then, Diaspora's development has stalled. In August, its initiators disengaged themselves and handed over the keys to the "community". Development continues, thanks to defenders of free software. There are said to be several thousand installations worldwide, which is still a long way from Facebook. Diaspora's fate clearly shows the difficulty of finding an alternative model to the giants of social networks, financed by advertising. - BF

## ###ARTICLE\_START### ID:812

The small company ADA Consultants manages a turnover of a little over a million dollars per year, but not a cent of it comes from Quebec. All the money comes from abroad, from contracts that the company carries out in various countries in Africa or Asia. It is probably one of the rare companies in Quebec to work mainly in IT projects abroad, notably for the World Food Program, projects financed by the World Bank, the West African Economic and Monetary Union or the Ministry of Infrastructure in Rwanda. Founded in 1995 by Alou Diop, who worked as a consultant in another company before going into business with two other partners, ADA Consultants specializes in project monitoring and evaluation solutions using a Web platform. Mr. Diop's two partners left in 2004 and, for three years, he continued his development projects abroad by working in his basement. In 2006, his daughter Sarah joined the team, which now has seven employees, including project managers and IT specialists. "My first project was in Burkina Faso, in Ouagadougou," says Sarah Diop in an interview. "It was to implement a monitoring and evaluation program for a project. Most of our contracts come from invitations to participate in a call for tenders for international donors. And our software can easily be adapted according to the client's needs and the parameters they want to measure throughout the project and subsequently with the evaluation of the impact in local communities." The fact that the company uses original solutions based on open source software gives it an advantage in calls for tenders where donors require the use of open source code, unlike proprietary software such as Microsoft or Oracle systems, says Sylvain Filteau, programmer-analyst and principal technical advisor. Open source solutions are typically much cheaper to install and use than solutions with proprietary software, which cannot be customized to meet needs without significant costs, just as you have to pay for updates and maintenance with companies that have exclusive rights to the product license. For example, a road construction and paving project in Africa will have impacts that go beyond vehicle traffic. Project managers want to track and analyze the impact of the project on trade and commerce between villages, on the movement or mobility of people. There may also be impacts on school attendance, access to health care, improved living conditions, and other issues, depending on what the client and funder need to know. "Our Prome Web software is an application with a Web interface," add Ms. Diop and Mr. Filteau. "In some cases, such as in Rwanda, we installed the software on one of their servers, but we perform maintenance remotely. In other cases, we host the application in Quebec City and clients connect to the application via a browser. However, we must ensure that we have a stable connection and good data transmission speed." In some cases, clients want to share documents or equipment via the same work channel. So, we will add a document management tool. Other software has been developed for managing goods and transport between states with Sygestron, which tracks goods at different customs transit points. Or Netsim, which is a system for analyzing product costs and managing supply and demand. It allows producer associations to track price changes in public markets.

## ###ARTICLE\_START### ID:813

"Variety is one of Android's strengths," said Stephen Baker, an analyst at research firm NPD Group. "Having a lot of people making a lot of things, across a range of price points, with multiple brands ... makes a big difference," he said. Unlike Apple, which reserves its software for its own products, which it controls from start to finish, Google has enabled a range of electronics companies around the world to use Android. The software powered three-quarters of the smartphones sold worldwide in the third quarter, or 136 million devices, according to recent data from IDC. "Android has outpaced the [smartphone] market growth and taken share from the competition every year since its launch in 2008," said Ramon Llamas, a research director at IDC. In the tablet market, too, Android-based manufacturers saw their shares increase significantly between the second and third quarters: South Korea's Samsung increased its share from 9.6% to 18.4%, and online retailer Amazon, which makes the Kindle Fire, increased its share from 5% to 9%, according to IDC. Apple's iPad's share fell from 65.5% to 50.% over the same period. According to Charles Golvin, an expert at Forrester, Android is benefiting from a changing consumer profile, particularly for smartphones. Open source software For early buyers, the technology used to be more important than the price, but today the smartphone has become a mass-market product, and its cost plays a more decisive role. "People are more attracted to the Android platform, because there are more choices and most of those choices are cheaper" than an iPhone, says Mr. Golvin. Android also has the advantage of being open source software, which product designers can use for free and improve as they see fit, providing useful feedback to Google and accelerating innovation. "The pace of innovation for Android is faster than Apple," which is "far behind" in this area, notes Ken Dulaney, an analyst at Gartner. The downside is that not all devices on the market have the latest innovations, with many still running older versions of Android, Golvin notes. That can make it difficult to design apps that work across all of those devices. In addition, having hundreds of different Android devices creates enormous competitive pressure on manufacturers, Baker notes. "Other than Samsung, I don't know that the other Android partners are making money," the analyst says. In the end, the real winner is Google, which has done a lot of work to improve the "ecosystem" of music, movies, books, games and other applications available for Android devices, analysts say. The software is also designed to encourage use of services that make money for the Internet giant, such as its Google Play online store, its Google Search website and its Google Maps road maps.

## ###ARTICLE\_START### ID:814

San Francisco - Android, the mobile operating system from Internet giant Google, is taking a growing share of the phone and tablet market from Apple, thanks to rapid innovation and a wide range of cheaper devices. "Variety is one of the strengths" of Android, said Stephen Baker, an analyst at research firm NPD Group. "Having a lot of people making a lot of things, across a range of price points, with multiple brands ... makes a big difference," he said. Unlike Apple, which reserves its software for its own products, which it controls from start to finish, Google has enabled a range of electronics companies around the world to use Android. The software powered three-quarters of the smartphones sold worldwide in the third quarter, a total of 136 million devices, according to recent data from IDC. "Android has outpaced market growth and taken share from the competition every year since its launch in 2008," said Ramon Llamas, a research director at IDC. In the tablet market, Android-based manufacturers also saw their shares increase significantly between the second and third quarters, with South Korea's Samsung increasing its share from 9.6% to 18.4%, and online retailer Amazon, which makes the Kindle Fire, increasing its share from 5% to 9%, according to IDC. Apple's iPad's share fell from 65.5% to 50.4%, according to Forrester analyst Charles Golvin. Android is benefiting from a changing consumer profile, particularly in the smartphone market. For early buyers, the technology used to be more important than the price, but today, the smartphone has become a mainstream product, and its cost plays a more decisive role. "People are more attracted to the Android platform because there are more offerings and most of those offerings are cheaper" than an iPhone, Golvin said. Android also has the advantage of being open source software, which product developers can use for free and improve as they see fit, providing valuable feedback to Google and accelerating innovation. "The pace of innovation for Android is faster than Apple," which is "way behind" in this area, notes Ken Dulaney, an analyst at Gartner. The downside is that not all devices on the market benefit from the latest innovations, with many still running older versions of Android, Golvin notes. That can make it difficult to design apps that work across all of those devices. In addition, having hundreds of different Android devices creates enormous competitive pressure on manufacturers, Baker notes. "Other than Samsung, I don't know that the other Android partners are making money," the analyst says. In the end, the real winner remains Google, which has done a lot of work to improve the "ecosystem" of music, movies, books, games and other applications available for Android devices, analysts point out.

## ###ARTICLE\_START### ID:815

In an open letter, a copy of which was sent to Le Devoir, this group, which presents itself as "the group of 13 astonished people", notably invites Quebec to create a "Digital Agency" that would report to the National Assembly, to set up a "National Digital Council", on the model of the Higher Education Council, but also to stop investing at all costs in concrete and assets in order to focus more on knowledge. "Today, we are investing in the past by borrowing from the legacy that we will leave to our grandchildren: their future", write the signatories of this letter. Monique Savoie, founder of the Society for Arts and Technology (SAT), entrepreneur Sylvain Carle, "digital experience" specialist René Barcelo, philosopher Hervé Fischer, holder of the Université de Montréal Chair in Security and Electronic Business Law Vincent Gautrais and free software advocate Cyrille Béraud are among those who have left their mark on the letter. "Quebec is sliding down the competitiveness ladder because our neighbours, provinces and countries, have given themselves a vision of the future to collectively reap all the benefits of new modes of communication and the intangible economy in the form of a Digital Plan," something that Quebec has not yet been able to do, according to them, preferring instead, they emphasize, to "tablet" the numerous reports, from the Berlinguet report in 1995 on the information highway to the Gautrin report on governance 2.0 in 2012, strongly recommending marking out the digital shift to better negotiate it. Priority investments The open letter was addressed personally on Friday to Premier Pauline Marois, but also to François Legault, leader of the Coalition avenir Québec (CAQ), Jean-Marc Fournier, interim leader of the Liberal Party (PLQ), and Françoise David, of the political microformation Québec solidaire (QS). While inviting them to become aware of a changing society where knowledge and information are becoming "our raw material and [where] the Internet [is now] the public square where our decisions are made", the 13 astonished people also demand priority investments from Quebec in knowledge, in the deployment of very high-speed networks, as well as in the creation of a forum for citizen participation independent of the government, inspired by NESTA in England, a collaborative and participatory space dedicated to new ideas and innovation. A story of filling a gap whose persistence over time is increasingly astonishing. Obviously.

## ###ARTICLE\_START### ID:816

Revising your lessons or learning English on your mobile phone? Today, this is unthinkable in France, but in Chile, it is already the case for 1.2 million high school students. Since 2006, the government and Fundacion Chile have launched an online education portal to help teachers and their students prepare for the university admission test (PSU - prueba de seleccion universitaria). Each student can connect using their mobile phone or a computer to follow a program tailored to their level. "Due to geographical constraints, Chile is a very centralized country, which leads to significant inequalities in access to education between students living in the provinces, often from disadvantaged backgrounds, and those in large cities," explains Ana Maria Raad, director of the EducarChile program, winner of the 2012 Wise Prize. EducarChile aims to give them the same tools and the same chances to access universities, by getting around this geographical constraint. » The results are encouraging: 62% of users live in the provinces and in 2011, twenty of them obtained the best scores in the national test. The idea of using mobile phones as a teaching tool has been gaining ground in international research laboratories for about ten years. "The mobile phone is the most widely used technological tool, including in the poorest countries," notes David Atchoarena, director of the division for teacher development and higher education at UNESCO. "With falling costs, their penetration rate is exponential. It is a fantastic opportunity for nomadic learning." At the end of 2011, there were six billion mobile phones in the world and 80% of new line openings were in developing countries. The arrival of tablets should accentuate the trend. Thailand recently announced that all first-year primary and secondary school students will be equipped with a tablet, or 1.7 million children. And India is launching into the production of low-cost tablets for students. The "smart classroom" has a bright future ahead of it. But learning on a mobile terminal alone is not enough. "We are not looking to replace the school or the teacher," continues David Atchoarena. The idea is to make the learning environment more effective." This is the case, for example, of the Yoza cellphone stories application in South Africa, which aims to facilitate access to reading for adolescents during extracurricular time. While 51% of South African homes do not have any books, novels and even Shakespeare have been adapted to mobile format. Also in South Africa, the government launched, in 2009, in partnership with the manufacturer Nokia, a mobile mathematics application for high school students under the name MoMaths project. With more than 10,000 exercises, mainly in the form of questions and answers, students do their homework on their phones and participate in online competitions. In 2010, students improved their results by 14% and by the end of 2011, the program had reached 25,000 users with the support of 500 teachers and 172 schools. Building on this success, the project is expected to be extended to three other African countries. One of the major challenges in developing mobile learning is adapting content to different audiences and cultures. Matthew Kam, head of the Millee project (Mobile and Immersive Learning for Literacy in Emerging Economies) at Carnegie Mellon University in Pittsburgh, is working on this issue. A finalist for the 2009 Wise Prize for his project, he conducted research in rural northern Uttar Pradesh, India. In the country's agricultural areas, 43% of children do not attend school regularly because they are often called upon to do field or domestic work. Mobile phones give them greater freedom to study when and where they want. The Millee design team was inspired by traditional village games to create a fun English learning program. "These games provide them with the basics of vocabulary, grammar and spelling to communicate," explains Matthew Kam. "To go further, they cannot do without a teacher. But for schools that have very little means, it is already a big step." Research projects are multiplying, but larger-scale initiatives remain the exception. "We are still far from having a solid understanding of the direct benefits linked to the introduction of new technologies," judges David Atchoera. "Their impact depends heavily on the conditions of application and the quality of teacher support." According to Paul Kim, head of technology development at the Stanford University School of Education, "it is rather the perception of new technologies in general that limits the development of innovative projects." His research team is working on the concept of "pocket school." With a view to better articulation between the traditional classroom and new technologies, the Stanford team has notably set up the Smile platform (Stanford Mobile Inquiry-based Learning Environment). This encourages students to ask questions with their mobile or tablet. For example, they can take a photo with their phone of an image taken from a book, a drawing or an insect in the playground and attach a question to it related to the day's lesson. "It will take time before we see real changes in the classrooms," concludes Paul Kim, "but young people who grow up with new technologies will find it completely natural to use them as educational tools." Doing your homework or learning English on your cell phone? This is already a reality for 1.2 million secondary school students in Chile. In 2006, the government and Fundacion Chile jointly launched an online education portal to help secondary teachers and their students prepare for the PSU (Prueba de Seleccion Universitaria), the university entrance exam. Via their cell phones or a computer, students can hook into a tailor-made program to follow their level. Ana Maria Raad, director at the EducarChile program, a 2012 Wise Prize finalist, says: “Chile's geographical oddities have made it a highly centralized country. In terms of access to education, this means marked inequality between students in the provinces, often from disadvantaged backgrounds, and those in the big cities. By bypassing the geographical obstacles, EducarChile aims to provide them with the same tools and the same chance of going to university.” The results so far are encouraging: 62% of those using the program live in the provinces, and in 2011, twenty of them were among the top scorers in the national exam. The idea of using cell phones as a teaching tool has been getting attention in international research centers for ten years now. “The cell phone is the most widespread technological tool around, including in the poorest countries”, comments David Atchoarena, director of Unesco's division for planning and development of education systems. “As costs fall, the cell phone penetration rate rises exponentially. This is a great opportunity for mobile learning.” At the end of 2011, there were 6 billion cell phones in the world, with 80% of new accounts being opened in the developing countries and the advent of tablets likely to boost the trend. Thailand recently announced that all pupils starting primary and secondary school - 1.7 million children - will be provided with a tablet. Meanwhile, India is embarking on production of low-cost tablets aimed at its students. The smartclass is just around the corner. In practical terms, however, learning on a cell phone is not enough on its own. David Atchoarena continues: “We're not thinking about replacing schools and teachers. The idea is to make the learning environment more efficient.” One interesting example is South Africa's Yoza Cellphone Stories application, aimed at giving teenagers more of a chance to read outside school hours. 51% of South African homes do not have a single book, but here we see novels and even Shakespeare being adapted to the cell phone format. And more is happening in South Africa. In 2009, the government, in partnership with phonemaker Nokia, launched MoMaths, a cell phone application for secondary students. With access to over 10,000 mostly question/answer exercises, students do their homework on the phone and take part in online competitions. 2010 saw a 14% improvement in users' results, and by late 2011, the program was reaching 25,000 students, with backup from 500 teachers and 172 schools. On the strength of this success, the project is to be extended to three other African countries. One of the major issues in the expansion of mobile learning is adapting content to different audiences and cultures. Matthew Kam, in charge of Millee (Mobile and Immersive Learning for Literacy in Emerging Economies) at Carnegie Mellon University, is currently working on this. As part of the project that made him a WISE finalist in 2009, he carried out research in the rural North of Uttar Pradesh, in India. In these farming areas, 43% of children do not attend school regularly, as they are often called on to work in the fields or at home. The cell phone offers them the opportunity to study where and when they wish. The team that designed Millee took traditional village games as the inspiration for their English literacy through games program. Matthew Kam explains: “The games give them basic vocabulary, grammar and spelling skills, so they can communicate. If they want to go further, they have to have a teacher, but for schools with very limited means, this is already a big step forward.” There are research projects going on everywhere, but more far-reaching initiatives remain the exception. David Atchoera says: “We're still a long way from really understanding what direct benefits can be got from the new technologies. Their impact is heavily dependent on the circumstances of their use and the quality of the input from teachers.” According to Paul Kim, chief technology officer at Stanford University School of Education, “what limits the development of innovative projects is more the perception of the new technologies in general”. His own research group is working on the pocketschool concept: aiming at improving the interconnection between the traditional classroom and the new technologies, the Stanford team has notably come up with the Smile (Stanford Mobile Inquiry-based Learning Environment) platform, a kind of open-source box that encourages students to ask questions via their cell phone or tablet. For example, they can use their phone to photograph an image in a book, or a drawing, or a bug in the schoolyard, and hit it to a question relating to the lesson of the day. The questions are collated by the Smile management system and redistributed to students for answers and evaluation. Paul Kim concludes: “It's going to take time before we see real changes in classrooms, but kids who are growing up with ICT will find it perfectly natural to use it for making educational tools.”

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Doing your homework or learning English on your cell phone? This is already a reality for 1.2 million secondary school students in Chile. In 2006, the government and Fundacion Chile jointly launched an online education portal to help secondary teachers and their students prepare the PSU (Prueba de Seleccion Universitaria), the university entrance exam. Via their cell phones or a computer, students can hook into a tailor-made program to follow their level. Ana Maria Raad, director at the EducarChile program, a 2012 Wise Prize finalist, says: "Chile's geographical oddities have made it a highly centralized country. In terms of access to education, this means marked inequality between students in the provinces, often from disadvantaged backgrounds, and those in the big cities. By bypassing the geographical obstacles, EducarChile aims to provide them with the same tools and the same chance of going to university." 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Paul Kim concludes: "It's going to take time before we see real changes in classrooms, but kids who are growing up with ICT will find it perfectly natural to use it for making educational tools." Julia Zimmerlich

## ###ARTICLE\_START### ID:818

Branchez-vous.com and Showbizz.net will be revived thanks to Cinoche.com and Libéo. These two companies announced yesterday that they had reached an agreement with Rogers Communication to acquire the intellectual property of the sites on the Branchez-vous.com network. Remember that last May, Rogers closed the Branchez-vous portal, one of the oldest websites in Quebec. In addition to Branchez-vous.com and Showbizz.net, the transaction, the amount of which has not been disclosed, allows Cinoche.com and Libéo to acquire the intellectual property of joue.com, benefice.net, cine-horaire.com, matin.qc.ca, fanatique.ca, lecinema.ca, humourquebec and more than a hundred other domain names. It is already planned that renewed versions of the flagship sites Branchez-vous.com and Showbizz.net will be put back into service by next spring. "These sites have been part of the daily lives of Internet users for over 10 years. Our team is ready to take on the challenge of bringing them back to life with quality content," said Joé Bussière, CEO of Cinoche.com and Libéo. "Our knowledge of the world of technology and entertainment can only be profitable and give Internet users full access to these pioneering sites that have left their mark on the Web landscape," added Jean-François Rousseau, President of Cinoche.com and Libéo. While Libéo, from Quebec City, designs and develops Web projects based on open source software, Cinoche.com is the reference in cinema in Quebec, with over a million visits monthly.

## ###ARTICLE\_START### ID:819

The City of Sherbrooke will save a lot by reviewing the management of its IT activities. It will free up nearly $1.1 million on an operating budget of $6.3 million. However, this appreciable saving of 17.5 percent could be reinvested almost entirely in modernizing the IT equipment and optimizing the way things are done. The final report of the information technology project, launched a year ago as part of the Sherbrooke Commission on Municipal Activities (CSAM), was tabled last night at city hall. "The objective has been achieved," applauded Mayor Bernard Sévigny. "We would like to have files like this every week!" added the president of the executive committee, Serge Paquin. The operating costs of the information technology department have already been reduced by $634,000 this year, in particular by limiting the cost of licenses. They will suffer an additional decrease of $450,000 in 2013. Certain management activities delegated to third parties will be repatriated internally. The organizational structure of the information technology department will be significantly modified. Other savings are to come by 2015 thanks to the implementation of new IT practices, it is said. Mobile technologies will be integrated and open source software will be used more. Strategic planning A 2013-2015 strategic plan was also presented to elected officials yesterday evening, about a month before the adoption of the next municipal budget. Its full implementation would require investments of $900,000 per year, or $2.7 million by 2015. The IT equipment would be modernized and user service would be optimized, among other things. Note that the annual investment budget for the information technology department is approximately $4 million. This service aims to develop a "smart, innovative and sustainable city serving its citizens" while serving as a "lever in achieving the city's results". Like Montreal, Quebec City and Gatineau, Sherbrooke plans to make its public data available to all so that it can be reused for different purposes. This project should be completed by December 2015. It should be recalled that the conclusions of two other CSAM projects were presented to the city council last spring. Elected officials rejected the recommendations of the project on local services and governance, also known as the "Paquin report". The abolition of four elected positions and the centralization of parks and recreation management were expected to save $1.25 million per year, an amount questioned by opponents of the report. Elected officials also modified the risk coverage plan, which will reduce projected expenses by nearly $7.5 million by 2017. No permanent fire station will be built in Brompton. This borough will instead be served by moving the fire station from Prospect Street to the Plateau Saint-Joseph. The repatriation of certain residual material collections by municipal employees and the closure of account payment counters are also part of the philosophy behind the creation of the CSAM. The final report on the project reviewing Hydro-Sherbrooke's activities has not yet been submitted.

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(San Francisco, Correspondence) - Proving that 3D printing is no longer science fiction. That's the goal MakerBot has set itself by opening its first store in the south of Manhattan, New York. One of the "hottest" companies in the Big Apple is exhibiting its latest 3D printer, the Replicator 2. Sold at $2,199 (1,707 euros), it is an intermediate model, between the entry-level model, which starts at under $1,000, and much more sophisticated models, whose prices can exceed $10,000. This new machine represents a turning point in the history of this young company founded in January 2009. The first models required a delicate adjustment for novices. The start-up also only provided a three-week warranty on its machines. DIYers love it, others less so... "We found with our previous model that most people preferred to use it directly rather than having to configure it," explains Bre Pettis, co-founder and CEO of MakerBot. To broaden its audience, MakerBot is therefore banking on ready-to-use machines. Its core target? Architects, designers and engineers wanting to create their prototypes at high speed. But not only. "The consumer market is going to explode," predicts Gonzalo Martinez, director of strategic research at Autodesk, a 3D software publisher. By targeting a new audience, MakerBot has also abandoned the principle of "open source" hardware (open access plans of an object to allow anyone to manufacture it and make modifications to it), on which it had based its development. The plans for the new printer are not public. “We are not sharing details about the manufacturing of the Replicator 2 because we believe that cloning is unacceptable and that it limits our ability to fund our development,” explains Bre Pettis. He is referring to a project presented on the crowdfunding platform Kickstarter, whose objective was to produce in China and sell at a discount price 3D printers... by duplicating a model designed by MakerBot. This change of direction has aroused the ire of the community of developers grouped around RepRap, a British open source project at the origin of the creation of 3D printer models. MakerBot was one of the pillars of the club, and the company hosts Thingiverse, the site for sharing 3D plans... Several of its members accuse the company of having monopolized their contributions in order to develop its new machine. They accuse it, as well as its founder, himself a former "hacker", of having sold his soul with the arrival of external investors in August 2011. These new shareholders, including Jeff Bezos, the boss of Amazon, brought in 10 million dollars. This allowed MakerBot to accelerate its investments and hire. The company now has around 150 employees. A solid base, according to Jesse DePinto, president of the consulting firm 3D Creations: "While I'm sure they appreciate the help of the community, MakerBot no longer needs free R&D." When the market expands, free software flees.

## ###ARTICLE\_START### ID:822

The political situation, however, is not giving any compelling signs of transition: Huntsville, like the whole of Alabama, one of the most conservative states in the country, will vote again for the Republicans, as it has done for more than 30 years, blindly. Even if for evangelical voters, Mitt Romney is far too moderate. In 2008, the Republican presidential candidate, John McCain, was so unafraid of losing in Alabama that his campaign spent, CNN noted, only $850 there, in all. Return on investment: 60% of the votes, uniformly white. The fact remains that Obama had obtained almost 39% of the votes, filling up on votes from the black minority -- which constitutes a little more than a quarter of the state's population. The math is easy to do: unlike states like Florida and Texas, Hispanics -- who are Democrats -- are a tiny minority in Alabama, making up no more than 5 percent of the population. Proof that not all whites in the "South," however deep, are anti-government "rednecks." To say that many are tired of the stereotypes about the South, as if nothing had changed since the 1960s, is an understatement. Take Mark Spencer, a 35-year-old in a T-shirt and Bermuda shorts, an American software engineering star in the telephone industry. He voted for Obama and will vote again. "Romney would be better for my wallet, but Obama is better for the country. I have friends with far fewer resources than I do who are going to vote for Romney. I can't believe how well the Republican Party is able to convince people to vote against their own interests." Mark Spencer is the inventor of Asterisk, a Linux-based open source software used in the business telephony sector, and founder of Digium, an Asterisk technology service provider. He is rich, successful worldwide. He flies. His clients include Employment and Immigration Canada. The "Great Recession" has not stopped him from thriving. We interview him aboard his little Piper, between Auburn, where he is from, and Huntsville. His new passion is flying airplanes. He now enjoys designing applications for the airline industry. New South Mark Spencer, child prodigy, is the embodiment, the poster child of what the political and economic elites -- white -- like to call the "new South", the one that has survived the collapse of its agriculture and its manufacturing industry (textiles, in particular) to turn to high technology and the automobile industry. Although Huntsville's scholarly mission is not new. The city is home to NASA's largest research center, whose history goes back to the late 1940s when the Americans recruited the German rocket scientist Wernher von Braun. An SS officer under Hitler, he designed the V-2 missiles that fell on London during World War II. In the United States, he became a pioneer of the American space program, developing Saturn rockets for the Apollo lunar program. Huntsville praises the man to the skies: the large local museum dedicated to space adventure glosses over his Nazi past. And then, another curiosity, this new South is part of the legacy of George Wallace, a notorious segregationist (who repented of it in the late 1970s), four times governor of Alabama and four times candidate for the American presidency, three of which as a Democrat. An assassination attempt in 1972 confined him to a wheelchair for the rest of his days. But he was also one of the very first southern governors to go, in the 1960s, to the big companies established in the industrial north of the United States to offer them discounts and to dangle his anti-union environment in front of them so that they would move to Alabama. His gesture would snowball in several Southern states. The migration has not stopped. 40% of automobile production Industrial and technological modernization... In the pretty center of Birmingham, an old disused Sears store that had been sleeping there for years has been transformed into a "technological incubator" housing a hundred young companies. Its success is a balm for a city center whose urban fabric, as soon as you look closely, is riddled with empty businesses and buildings. The South owes much of its turnaround to the fact that it has become a large factory for the production of foreign cars. Of the cars built in the United States, 40% are now in the South. Alabama alone, the sixth-poverty state in the Union, has obtained permission for five car manufacturers to set up shop there: Mercedes, Honda, Toyota, Hyundai and Isuzu. Toyota also has factories in West Virginia, Texas, Mississippi and Kentucky. Kia has one in Georgia, BMW is in South Carolina, Volkswagen in Tennessee and Volvo in Virginia. In aeronautics, moreover, the European Airbus announced last summer that it would set up its first American factory in Mobile, Alabama, to build its A-320s. The South, a region that stretches roughly from Texas to the East Coast, is also a haven for so-called right-to-work laws that discourage unionization. One probably partly explains the other. "It's true that there's no union culture here, but the fact is that no automaker laid off workers during the recession," argues Sujit M. CanagaRetna, an economist -- of Sri Lankan origin -- at the Southern Legislative Conference in Atlanta, an intergovernmental cooperation organization of which 15 states are members. A recession that, overall, affected blacks more than whites because, as in the rest of the country, African-American workers are overrepresented in the construction industry and manufacturing.

## ###ARTICLE\_START### ID:823

SHERBROOKE - Sherbrooke-based Révolution Linux, which describes itself as one of Quebec's largest open source software service companies, announced Thursday a merger with Montreal-based Gestion-Ressources, which has been operating in the information technology sector since 1996. The aim of this merger would be to better serve customers by combining the strengths of these two companies, experts in their respective fields. According to Benoît des Ligneris, president and founder of Révolution Linux, "this alliance positions Révolution Linux as a leader in alternative electronic messaging to Microsoft Exchange, since Gestion-Ressources is the only company in Quebec that holds the Enterprise Partner level of VmWare's Zimbra collaborative messaging system." Let's remember that Révolution Linux remains a specialist in the deployment of integrated management software packages and is combining its experience and resources with a technological leader recognized worldwide for the deployment of private clouds based on open source software, such as Gestion-Ressources. "This represents a great opportunity to expand our range of services and also to join a dynamic and highly qualified company," believes Serge Martel, President and Founder of Gestion-Ressources. Together, these two companies have already deployed and supported the program called Zimbra for more than 250,000 users. At the same time, a door opens to the Montreal market for Révolution Linux. "Montreal is the ideal place to obtain major mandates and to develop development strategies that increasingly require the constant presence of a resource on site," adds Serge Audet, Executive Vice-President of Révolution Linux. Thanks to this merger, the two groups now have around forty employees, including a dozen at their new Montreal office. However, the two companies will continue to work under their own name in order to prepare for the transition to a new entity.

## ###ARTICLE\_START### ID:824

Students and computers working together is nothing new. What we do with technology can help a student enjoy school in a different way. At Collège des Compagnons secondary school, the PROTIC program puts the student at the center of learning, not the technology... "If the servers were down, if the computers stopped working, if we lost access to the Internet, the PROTIC program would work," says Stéphanie Boudraux-Carrier, a second-year secondary school teacher. "Technology supports teaching, not the center of the world." Established 16 years ago, PROTIC, the training program integrating new teaching approaches and information and communications technologies (ICT), is a simple acronym, like the approach based on the values of autonomy, openness to others, ability to work in a team, rigor, and participation. Computers and all the technology rigmarole help students take charge of themselves by being curious, responsible, autonomous, able to manage their schedules, by being able to count not only on the teacher, but also on the members of their team to answer their questions. When the Sun passed, the students' neurons were heating up just as much as the laptop processors. According to Sébastien Simard, assistant director responsible for the program, the College has a very low dropout rate because young people are eager to learn and the educational environment lends itself well to that. No absenteeism problems either. The teachers teach several subjects and are more in contact with the students. They are guides in the process of learning to learn and especially loving to learn. We do not give technology courses. The young people learn by themselves. They use software like Sync.in to work in real time on the same document. And there are all the tools of Google Docs, Inspiration, Etherpad or Scribble Map, and other open source software to support the educational project. Working together William Patry, in secondary 5, Laurence Charest, Justin Schlitt and Alexandra Boudreault, all three in secondary 4, confirm this. Teamwork, research, agenda and project management lead to resourcefulness, mutual assistance, the ability to make choices and taking responsibility. And there is a whole difference in working together on a project instead of sticking everyone's research together. In a project, everyone will understand because the knowledge is shared. And if one is stronger in math, he will help those who are having difficulty, while others will give him a hand in French. If a team does not have the answer, another in the class will lend a hand. Interaction makes classes interesting. The four young people are positive, PROTIC prepares them better for the transition to CEGEP. William didn't really like school in sixth grade, but PROTIC is another world, where school has an attractive side. They are not afraid of work, even if some, like Alexandra, had a harder time integrating. She had difficulty managing stress and the famous schedule. Autonomy was not her strong point. "I found the pressure too much and I had difficulty paying attention," she admits. With the support of students and teachers, she wanted to continue. Happy to have persevered, she proudly recounts that she was able to write a 2,146-word project in one period. The way PROTIC works helps create bonds and create a family spirit in the classes. And there are mandatory level projects, like the one for the film in fourth grade, where tasks have to be divided up. Or the one called Héritage, in fifth year of secondary school, where students will leave resources for others that will be useful in their journey, whether it is a tutorial on an application, a resource for solving a problem, for managing stress, or a tool like Postic, set up by a student and used by everyone to submit work. Research, emphasizes Professor Fédéric Cloutier, has shown that young people in the program who arrive at CEGEP are more autonomous, more rigorous, attracted to teamwork, while showing great involvement in their courses.

## ###ARTICLE\_START### ID:825

With the arrival of Microsoft's new operating system, Windows 8, on computers on Friday, October 26, the machines will paradoxically take a bit of a hit: it will become difficult to escape Windows to install other equally powerful systems, such as FreeBSD or GNU/Linux systems, the best known of which are Ubuntu, Linux Mint, Fedora, OpenSUSE... The deployment of Windows 8 in fact confirms the disappearance of a small program dating from the mid-1970s (!) and present on all PCs since then, the BIOS. This is the first program that is launched when a machine is powered on. It "wakes up" the various hardware components, hard drive, keyboard, graphics card... It then activates the operating system itself and all the software. But the BIOS does not work with current hard drives of more than 2 terabytes (or 2,000 gigabytes). In addition, its reduced size no longer allowed it to evolve. This is why a consortium of players, at the initiative of Intel, developed a new BIOS, called UEFI, which has been gradually deployed. "Since 2010, half of PCs have been sold with UEFI. But users don't realize it," explains a spokesperson for the UEFI Forum. Windows 8 uses new features of the new BIOS, particularly concerning security. A Windows 8 certified PC will not be able to start up with anything other than the original version installed. In particular, no virus will be able to modify the core of the system because thanks to an electronic signature, it will be possible to verify that the integrity of the program is preserved. PCs will thus be protected against "rootkit" type viruses, which generally deceive traditional antiviruses because they act upstream of them. However, the technique remains ineffective against other viruses, which use flaws in software. Incidentally, UEFI allows Windows to connect to the network, for example a company's, to retrieve encryption keys and decode the hard drive. Without these keys, the contents of the hard drive are unreadable. But if Windows 8 and its "secure boot" block rootkit viruses, they actually prevent a PC from being used with another operating system, thus limiting the user's freedom. The free software community has therefore stepped up to denounce these new obstacles. By giving access to all program lines, free software authorizes their use, modification or distribution. If they are a minority in the field of desktop PCs, they are the majority on Web servers for example. "Monopoly status" "Secure Boot will probably be an obstacle to the adoption of free software because of Microsoft's monopoly status on pre-installed systems", explains John Sullivan, executive director of the Freesoftwarefoundation, which launched a petition against restricted boot. For a year, different players in this community have been working to find solutions. Microsoft has indicated that it would be possible to disable Secure Boot, which would allow you to install what you want but would make Windows 8 inoperable, whereas today the two systems can easily coexist. This operation would depend on each manufacturer and would not necessarily be simple. The Linux Foundation, which is in charge of developing the core of Linux operating systems, or other players such as Fedora or OpenSUSE have proposed another solution. They provide a pre-program, certified by Microsoft, just after UEFI, which then allows you to launch another program, which itself would command the launch of any Linux or other system, subject to using electronic signatures (independent of Microsoft this time). "It will be much more complicated. Ten years ago, we organized many install parties to help people equip themselves with free software. This was less and less necessary because the procedures are really simple. We're going to have to get back to it! "regrets Pierre Ducroquet, member of the Chtinux association for the promotion of free software in the Lille region. In addition, certification creates a dependency on Microsoft, which can revoke its signature at any time. The company also prohibits the deactivation of Secure Boot on machines based on so-called ARM architectures, which equip mobile phones or tablets, further restricting competition on systems that are likely to develop.

## ###ARTICLE\_START### ID:826

Mal au pixel does not just paint a pessimistic picture of our connected future. A member of Pixelache, an international network of electronic arts festivals (in Finland, Norway, Senegal, Colombia, etc.) that is celebrating its tenth anniversary, it has always focused on do-it-yourself, open source culture, and the critical reappropriation of technologies. Faced with the development of "algorithmocracy," "governance by numbers that disrupts and reshapes our privacy, our sociability, and our public spaces," the organizers invite the public to open the black box by participating in weekly practical workshops. You can spy on peer-to-peer file exchanges (Tuesday), set up an alternative network with PirateBox (November 6), learn how to encrypt your emails (December 9), or learn about steganography (December 18). This weekend, the City Sniffing workshop invites you to an urban exploration in search of surveillance images in the company of Manu Luksch (author of the film Faceless screened on Sunday), Benjamin Gaulon and !Mediengruppe Bitnik. On Saturday afternoon from 2 p.m., the artists will present their projects during a conference on telecom and internet hacks, at the Gaîté Lyrique resource center.

## ###ARTICLE\_START### ID:827

What souvenirs did Ms. Marois bring back from her visit to Paris? Perhaps she convinced one of her hosts to offer her one of the recipes that the country is famous for? We know that she met her French counterpart, Jean-Marc Ayrault. That's good, because just a month ago, he wrote a little something that would certainly have done the trick. It's called a "circular," a directive, basically, but signed by the Prime Minister, it generally attracts attention. This document asks all ministers to implement a series of actions and measures aimed at facilitating the use of free software by the French state. France is not only known for its TGVs, its wine or its cheese. It is also "one of the two or three most dynamic countries in the world in terms of free software", according to the National Free Software Council, which speaks of an annual turnover of 2.5 billion euros and 30,000 jobs, with annual growth of 30%. Ms. Marois could have relaxed on the plane, on her return, reading this text in which Mr. Ayrault mentions some of the advantages of free software: lower costs, fewer unnecessary migrations and, above all, pooling between public actors. Imagine her joy on reading that "the use of free software in a ministerial department has made it possible to divide the operating costs of applications by 10". What better gift to offer to a Prime Minister faced with exhausting budgetary constraints? The document underlines to what extent it is "counterproductive for each actor to conduct their own developments and pay for them in full instead of sharing this burden". This observation led, 10 years ago, to the creation of an organization (ADULLACT) to unite the efforts of the French government to develop free solutions. It would seem that our Pauline I was introduced to the attractions of free software by our dear cousins. As evidenced by a photo of her, all smiles, in the company of Alexandre Zapolsky, CEO of Linagora. Linagora is the company that provided the software for Linux computers for the members of the French National Assembly (replacing Microsoft products). Its messaging and collaborative work software is used by the Ministries of Finance, the Interior, Defense and the National Gendarmerie. On his Twitter feed, where he proudly posts the photo, Mr. Zapolsky writes: "Pauline Marois, the Premier of Quebec, says she is in favor of free software! Long live the PQ and long live free Quebec!" No doubt an excess of enthusiasm, because in the Quebec government, the very idea of free software mostly causes hives. It's not like in Italy, where the government voted on August 7th for an amendment that purely and simply excludes the purchase of commercial software under licenses, unless there are exceptions that must be justified. Free software thus becomes the norm rather than the exception. Quebec upside down, in other words. What a shame that our new premier didn't take Mr. Ayrault's circular with her in her suitcase. But never mind, Le Soleil is happy to offer her a copy. Here is the link: http://circulaire.legifrance.gouv.fr.acces.bibl.ulaval.ca/pdf/2012/09/cir\_35837.pdf. Don't thank us. Just imagine the joy that so many IT managers will feel.

## ###ARTICLE\_START### ID:828

Almost every aspect of our lives depends directly or indirectly on a multitude of software, and a large part of this software is now free software. While, through a circular from Prime Minister Jean-Marc Ayrault, the government has just affirmed the importance of free software in the State's information systems and has displayed a proactive policy to support its use, we believe it is essential to integrate the study of free software into the training of future engineers. For the great educational value of software whose source code is available, for the ethical values of sharing that align them with the missions of public education, but, even more, because free software now forms the basis of modern computing. Computing in full evolution The center of gravity of computing has shifted over the last ten years. We are gradually moving from the era of individual computers to the post-PC era: Web browsers and communicating objects - smartphones, tablets - provide access to the resources of millions of servers that make up the "cloud". Yet the vast majority of operating systems, languages and programming tools used for over ten years to develop the services of global web giants such as Google, Facebook or Twitter, as well as start-ups, large and small, are free software. The same goes for a large part of the software bricks embedded in the objects around us, from telephones to tablets, from the "boxes" of Internet service providers to the nervous system of our cars. Free software is at the heart of the technologies that accompany this new era, and it has played a pioneering role in the emergence of modes of collaboration that are now established as sources of productivity and innovation for the entire industry and services: open innovation, which involves the sharing and collaboration of companies with external partners; wikis and corporate social networks, which break down the barriers of traditional companies; "agile" development, which makes it possible to accelerate the marketing of products that are better adapted to needs. Ensuring in France a good knowledge of free software and a strong presence in the most important free projects is a major challenge to maintain the French position in this strategic field. If we want more young French geeks to launch their companies on the Net, if we want France to have a bigger place in the (not so) new economy and, more broadly, in the IT industry, it is essential that the education system teaches them to handle this new raw material of IT that is free or open source software. The need for adapted training The free software ecosystem is the first to have shown that it was possible to federate the work of communities of several tens to several thousand developers spread throughout the world, with no other means of communication than the Internet and new collaboration tools, to produce industrial quality software, many of which have become standards. It is by teaching the programs and technologies of free software, but also by involving students in its development according to its own organizational and collaborative methods that we will train young engineers in these collaborative methods, these open approaches. Even beyond the IT sphere, this knowledge will be the key to the competitiveness of our companies in the 21st century. Teaching free software requires a specific effort: it is not enough to use free software instead of proprietary software, we must explain the mechanisms used to allow hundreds of programmers scattered across the planet to cooperate coherently on software with several million lines of code; we must learn the legal, organizational and economic concepts that are the basis of the free software ecosystem. It is also appropriate to put students in contact with developer communities. This requires a significant educational effort, which must be supported by incentive measures and no longer left simply to the goodwill of a few precursors. We must also encourage research that is developing around free software and provides new tools to support its growth. A source of future jobs Free software carries strong humanist values, considering that software must be part of humanity's knowledge heritage, a common good that should be cultivated together. But free software is also at the heart of an important industrial activity, still often overlooked. According to studies by the Pierre Audoin Consultants firm, this economy represents a turnover of 2.5 billion euros in France, or around 30,000 local jobs. The dynamism of this sector, 30% growth per year, also means a significant source of future jobs that are difficult to fill in the current education system, for which software development is still seen as an inferior path. This is an additional reason to teach more about free software to future young graduates: they ensure opportunities in a cutting-edge sector with exceptional dynamism. And it is not just the few hundred companies specializing in free software in France since, according to a study conducted among more than 500 companies in eleven countries, more than half of them have integrated free and open source software into their information system strategy. These companies need skills: it is important that they find them in France.

## ###ARTICLE\_START### ID:829

"The cost of migrating a subscriber to another service is very high," summarizes Claudine Bonneau, professor in the Department of Management and Technology at UQAM and observer of digital universes, "and this is partly due to the links that unite these subscribers within the same network. Leaving means giving up these links unless you rebuild them elsewhere as a group. In short, it's complicated and it makes subscribers captive." Facebook seems to have built its reputation partly on this principle, thereby slowing the rise of its direct competitor, Google +, from the multinational of the same name, launched in July 2011 and which to date has garnered 400 million subscribers, but also other initiatives, including the Diaspora project which, despite its good intentions of bringing a little humanity back into digital sociability by distancing it from the commercial sphere, has not, since 2010, succeeded in convincing more than 375,000 Internet users across the world. And yet, the idea, supported by four students from Columbia University, is not lacking in scope at a time when privacy under surveillance in social networks like Facebook raises its share of questions that Diaspora could easily answer. Free software In opposition to this idea of "spying on daily life in exchange for free service", Diaspora aims to be a social network based on the principle of free software, the ownership of which is in the hands of users, rather than a listed empire. Confidentiality, the public or private nature of data are controlled by subscribers, who can keep all their information on their computer rather than on remote servers managed by a private company. "Diaspora will never sell your social activity to advertisers, will not force you to comply with arbitrary operating rules and will not look over your shoulder when you socialize." In short, the network that likes to shout loudly that intimacy is not a commodity offers a transposition of the normal framework of socialization into a digital space, without underlying commercial reasons. "The more Facebook develops, the more we should see a migration towards this type of freer social network," says Mary Jane Kwok Choon, a researcher at the Groupe de recherche sur la communication, l'information et la société (GRICIS) at UQAM. Better control by users over their private lives will certainly become an important issue in the future, and even more so under the effect of revelations of intrusion or violation of this private life." The movement of digital crowds, from a closed social network to more community networks, is still timid, but it could well shape the foundations of a "new paradigm in social networks," she believes. A paradigm in which billions of humans could find themselves in a diversity of networks according to their tastes, their values, their tolerance to intrusion, their community interest... Like socialization in non-digital universes, in other words. \*\*\* Private space: not always problematic Confidentiality is surprising. For the federal privacy commissioner, Jennifer Stoddart, the socialization that is developing under the tutelage of Facebook is far from being a bad thing in itself. "Private companies have always regulated privacy," she told Le Devoir. "That's not a problem. In fact, we can be happy that this infrastructure for communication is provided by an American multinational. It's reassuring, because of the democratic principles defended by the United States." Nevertheless, like her colleagues from other countries, Ms. Stoddart says she is keeping an eye on such an empire that regularly faces criticism when it comes to privacy and censorship. "Facebook generally handles complaints diligently and in accordance with our recommendations," she said. "But it's also a company that innovates, that changes its structure regularly and that must be monitored very closely, which is what we do."

## ###ARTICLE\_START### ID:830

Patrice Bertrand, President of the National Council for Free Software (CNLL), President of the Open World Forum 2012, Founder and CEO of Smile. Roberto Di Cosmo, Professor of Computer Science at Paris-Diderot University, Director of the Initiative for Research and Innovation on Free Software (IRILL). Stéfane Fermigier, President of the Free Software Thematic Group of the Systematic Paris-Region competitiveness cluster, Founder of Nuxeo and Fluenzo.

## ###ARTICLE\_START### ID:831

CHICOUTIMI - Geomatics is now part of the lives of many citizens who use their GPS system to know the route to follow or to allow boaters to know their position on a body of water. It is in this spirit that more than 300 people are expected, today and tomorrow, at the 3rd edition of the VisionGéomatique 2012 conference, at the Le Montagnais Convention Centre. The event, organized among others by the Geomatics Centre of the Cégep de Chicoutimi, is being held under the honorary presidency of Carl Côté, president and partner of Groupe Nippour and Solutio globale informatique. According to Josée Dallaire, director of the Geomatics Centre, for the first time the conference will welcome participants from the Association de géomatique municipale du Québec, as well as the Quebec chapter of OSGeo-qc, an organization that develops Internet mapping applications using royalty-free software. Ms. Dallaire said she was very proud that the symposium was enriched by the participation of these organizations since they contributed to raising the profile of the event. Mr. Côté pointed out that geomatics is above all a decision-making tool that allows urban planners to plan the development of new neighbourhoods and surveyors to create cadastral maps of residential, commercial or industrial land. "The goal of our symposium is to build a bridge between newly developed technologies and users. We want urban planners who participate in the symposium to be able to see what new innovation will allow them to influence their work," said Mr. Côté. Among the participants, the Régie de gestion des matières résiduelles du Lac-Saint-Jean will present the expertise developed for planning collection routes, which could allow other cities to benefit from this experience. Sharing knowledge For Ms. Dallaire, the world of geomatics has an interest in sharing its knowledge and moving projects forward more quickly. The event program includes the participation of some fifty Quebec speakers, including five of international stature, and some forty exhibitors. Among the speakers is Nicolas Vila, a geomatics development engineer working for the Tales Group. During his career, Mr. Vila has also worked for the European Space Agency using software developed for NASA, thus serving as a bridge between the two international scientific organizations. Mr. Vila mentioned that, generally speaking, Canada has an international lead in geomatics due to the organization of its territory in a cadastral system. This system is about to be implemented in certain African countries where nothing exists in terms of territorial organization. Dvilleneuve@lequotidien.com

## ###ARTICLE\_START### ID:832

The Notman House on Sherbrooke Street in Montreal is about to be converted into the Maison du Web. The OSMO Foundation, which is leading the project, is looking to raise the last few hundred thousand dollars to complete the planned budget of seven million. An online fundraiser (crowdsourcing) launched last week has already raised $25,000 of the $100,000 requested from the communities. Deadline: October 31. Already in "beta" mode since February 2011, the Maison du Web offers spaces to young web entrepreneurs and hosts events related to the new technology community -- hackathons, meetings of young companies with rapid growth potential (start-ups), launch of new projects. "It was a catalyst," says Alan MacIntosh, co-founder of Real Ventures and a member of the OSMO Foundation. "We saw that there was a demand for it, that the community -- people who work in the mobile and virtual world of the Internet -- lacked physical space to share ideas, meet people, find partners, learn what's new, rather than discovering it a month later (or too much) later." In 18 months of "pilot" activities, the Maison du Web hosted some 125 events and 10,000 industry players: entrepreneurs, investors and Montreal students attended. A place for work, exchanges and networking, the Maison du Web aims to be an "accelerator" of Quebec-style technological innovations, rather than an incubator, says Alan MacIntosh. "The idea is not to protect them [people and their ideas], but to immerse them in the real world as quickly as possible," he said in an interview. "The Facebook generation is much more open, ready to share what works and what doesn't, rather than working in secret; it's the market that will decide whether it will work or not." OSMO for osmose, but also for "opensource Montréal" and "operating system," to make the Maison du Web a moving campus where experiences and expertise are exchanged. The Maison will not house permanent "tenants," but rather teams staying for three to six months, the time it takes to bring projects to life. Founder Fuel invited about ten young Canadian companies who worked on their project for 12 weeks, hoping to join the ranks of Foursquare and other Instagrams. The adventure is also the subject of a Web-reality series launched Monday in collaboration with Jobboom. Renovation work The former property of renowned Canadian photographer William Notman, listed as a historic monument in 1979, has been virtually abandoned for over ten years. Projects for condos and a hotel to replace it all fell through in the 2000s. The Foundation repainted the main residence for its activities, but the small building complex requires major renovation work, which will be carried out as soon as the budget is finalized. The three levels of government have already committed to paying $1.7 million, in addition to a loan of $4.3 million from the Business Development Bank of Canada and Investissement Québec. The private sector has promised nearly $1 million. The sum will be used to acquire the 19th-century property and renovate it so that it can occupy not just a third, but all of its surface area (over 3,700 square metres). The call for tenders has already been issued. Sid Lee Architecture and Pelland Leblanc Architects have signed the plans. Built in 1844-1845, inhabited by the photographer from 1876 until his death in 1891, the house then housed the Sisters of Sainte-Margaret, who built the adjoining hospital. The OSMO Foundation wants to connect the two buildings with a glass walkway and open a café in the semi-basement with a green roof to recall the immense gardens that bordered the neoclassical-style residence, now located in the heart of downtown Montreal. Discussions are also underway with the McCord Museum to showcase William Notman's photography collection. The Maison du Web will open in late spring 2013, if all goes well.

## ###ARTICLE\_START### ID:833

CHICOUTIMI - More than 300 participants from all over Quebec are expected for the 3rd edition of the visionGÉOMATIQUE conference involving more than sixty simultaneous conferences as well as three international conferences on October 17 and 18 at Montagnais. Presented by the Centre géomatique du Québec and the Centre collégial de transfert de technologie du cégep de Chicoutimi, the event will touch on several fields as diverse as municipal management, imaging, augmented reality, security, web 2.0, the environment, land management, the "open source" world, drones, mobility. Note, among others, the presence of Nicolas Vila of the Thales Group based in Toulouse and a computer engineer who developed a technology for a NASA project. Mr. Vila will give a conference on Thursday, October 18, entitled NASA WorldWind and OpenSource technologies in the service of geomatics and space. In addition, some thirty corporate booths will be made available to visitors who will also be able to participate in a business networking activity, presented by Mapgears, at the Pulperie de Chicoutimi under the theme of Oktoberfest. The organizing committee has set up a carpooling platform for all those who wish to travel to the event in an environmentally friendly manner.

## ###ARTICLE\_START### ID:834

Tuesday, October 9 Treaty Vote on the text of the European budget treaty limiting the structural public deficit to 0.5% of GDP and creating the structure responsible for monitoring this limitation. European Union Council of Finance Ministers (Ecofin) in Luxembourg. IMF Annual summit of the International Monetary Fund (IMF) and the World Bank in Tokyo (until the 14th). Wednesday, October 10 Surcouf Review by the Lille commercial court of the group's takeover bids. Women Women's Forum, in Deauville (until the 12th). SNCF Recruitment forum for the Ile-de-France region organized in Paris by the SNCF. Thursday, October 11 Expatriation International trade forum on expatriation and international mobility, at La Défense. Reserved for professionals. Sanofi Central works councils (CCE) for at least four branches of the Sanofi group, including research. A reorganization project threatens more than 900 jobs by 2015. PSA The Secafi expert firm, mandated by the central works council (CCE) of PSA Peugeot Citroën to investigate the financial health of the group and its strategy, must submit its initial conclusions. Design Closing of registrations for the student drawing competition in Aquitaine, organized as part of the 2012 Escales du design. The competition is open to students whose training organization is located in France and French-speaking countries. Heritage Investment Forum. Paris, Palais des congrès de la porte Maillot. 150 exhibitors, 60 conferences (until the 13th). Innovation INP Innov', organized by INP Toulouse on its campus, an event dedicated to research, innovation and industrial partnerships. Textiles CETI International Forum, organized by the European Center for Innovative Textiles as part of its inauguration (registration required). Lille Métropole. Digital Open World Forum 2012 (until the 13th), in Paris, the first global forum bringing together supporters, pioneers and entrepreneurs of free software. Technicolor The court must rule on the liquidation of the Thomson Angers factory, a subsidiary of Technicolor. Beekeeping European Beekeeping Congress in Agen (until the 14th). Friday, October 12 Paris Wedding Fair, Espace Champerret (until the 14th). Saturday, October 13 Philately Specialized associations are mobilizing for the Stamp Festival in 118 cities in France. Preview release of several special stamps on the theme of fire, public events. Free admission (until the 14th). Monday, October 15 Nobel Announcement in Stockholm of the Nobel Prize in Economics. Transport Payment of transport tickets by mobile phone comes into service in Nantes. Roma Presentation to the Senate of the draft resolution to request the lifting of transitional measures blocking access to the labor market for Roma. FAO Session in Rome of the FAO Committee on World Food Security (until 20th). 16th, World Food Day. Tuesday 16 October Petroplus Hearing of the Rouen Commercial Court on the future of the Petit-Couronne refinery (Seine-Maritime) in receivership. Internet Broadband World Forum 2012 in Amsterdam (until 18th). OECD World Forum on "Statistics, Knowledge and Policies", held in New Delhi, India (until 19th). Finance Act Start of the examination of the draft finance law (PLF) for 2013 and the draft social security financing law (PLFSS) for 2013. Mediterranean Mediterranean Economic Week held in Marseille (until 21st).

## ###ARTICLE\_START### ID:835

The Centre Pompidou website (1) is getting a makeover. Given the disastrous interface that until now served as an online showcase for one of Paris's leading cultural institutions, we could only do better. So, no more flashy monochrome and navigation hell! Launched on Thursday, the virtual Centre Pompidou now welcomes you with its classy video magazine that lets you see the program at a glance - but that's not the main innovation. Intuitive, sober, based entirely on free software, integrating social networks and public participation... the transformation is spectacular. The new platform is not only aimed at potential visitors, but at anyone interested in modern and contemporary art. "The goal is not to create a virtual museum that would only be a copy of what everyone can see, but to show what is not seen, the reserves, the knowledge, the skills," insists Alain Seban, the president of the Pompidou Center. A resource center, therefore, in open source, which is an approach diametrically opposed to the Google Art Project and its museum tours with on-board cameras. All the content produced by the museum will be accessible to the public (nearly 100,000): documentaries, archives, recordings of performances and conferences, interviews with artists and curators, and soon, catalogs. Reproductions of the museum's 75,000 works will eventually be just a click away, as well as the files of nearly 6,000 artists. All this using "semantic Web technologies," promoting "serendipity." Understand: the Internet user can "navigate by meaning" from a simple keyword (names of artists, works, writers, but also colors, materials, concepts, etc.), deriving from a work to an artist via a literary movement, a conference; but also contribute by adding links, information. Twelve million euros will be invested over four years to carry out the ambitious digitization program. In addition to the online store, smartphone applications and digital editions are planned, the revenues of which should make it possible to maintain free access. (1) www.centrepompidou.fr

## ###ARTICLE\_START### ID:836

Where to find $1 billion to compensate for the abolition of the health tax? The task seems daunting. However, by digging into the government's finances, our journalists have unearthed a bunch of ineffective, costly or downright useless measures. Here they are. BUSINESS AID $3.4 billion per year Businesses pay taxes on the one hand and receive financial assistance from the government in the form of subsidies and tax credits on the other. Tax credits and other tax holidays cost the public treasury $3.4 billion in 2011. Quebec spends twice as much as Ontario on business assistance. Even businesses agree that there are significant savings to be made in these expenses, which have increased by an average of 4.4% per year since 2006. Hélène Baril TAX CREDITS FOR SPORTS AND ARTISTIC PRACTICE An expense of $47 million per year The PQ has promised two refundable tax credits of $500 for parents who register their children aged 5 to 16 in sports or artistic activities. Reserved for families whose annual income is less than $130,000, each of these credits will give back approximately $100 per child. A useless measure because it will not make these activities more accessible: if you cannot afford to spend $500, the possibility of recovering $100 is not going to change the situation. Ariane Krol TUITION FEES TAX CREDIT Pay later During negotiations with students last spring, the government proposed limiting tuition fee increases by reducing the tuition fee tax credit, which students can claim several years after the end of their studies. Student federations were in favour of this and would have even liked to go further and cancel the increase completely. Tax expert Luc Godbout of the Université de Sherbrooke told La Presse Affaires that limiting tuition fee increases by reducing the tax credit would free up $136 million according to 2010 data for the government while promoting access to education for the poorest. They do not necessarily have the means to pay more while waiting for tax credits later. La Presse Affaires TAX EXPENDITURES Cuts where it hurts less There are savings to be made on the tax expenditure side, that is, deductions granted for various reasons. The Quebec section of the Canadian Federation of Independent Business believes that this would be less damaging to the economy than a tax increase. It suggests reducing tax credits for investments in labour-sponsored funds and those granted to union dues. Another proposal: taxing lottery and gambling winnings, a measure that, on its own, would allow the government to collect $400 million per year. Hélène Baril INFORMATION TECHNOLOGY The example of France By renewing computer systems and licenses that cost it some $2.6 billion, Quebec would be paying up to 10 times too much for its IT infrastructure, according to the most recent studies on the subject. French Prime Minister Jean-Marc Ayrault is the one who says it: following conclusive experiments within the French civil service, he has just published a dozen simple directives based on the systematic use of free software. According to him, they will make it possible to "divide by 10 the technological operating costs" of France. This seems verifiable: Cyrille Béraud and his SME, Savoir-Faire Linux, recently completed an IT project for just under $500,000 in Quebec City. Initially, the Public Service Council estimated its cost at $5 million. "The factor of 1 to 10 will not be universal, but it is a ratio that we observe in a generalized way in several cases where we switch to free software," he assures. According to this calculation, Quebec would therefore have on hand a potential saving of $2.3 billion by reviewing the IT management of its ministries. Alain McKenna, special collaboration ELECTRICITY More than 500 million to save Hydro-Québec could save more than half a billion annually by stopping buying energy from private producers that it does not need. These are supply contracts awarded to paper mills such as Kruger and Resolute or guaranteed purchases from developers of small hydroelectric power plants and wind farms. Hydro could also save the compensation of 200 million per year that it pays TransCanada Energy for not using its Bécancour gas plant, given that this energy will be needed in winter now that the closure of Gentilly-2 is official. Hélène Baril PHARMACEUTICAL INDUSTRY Controversial compensation The “15-year rule” is a measure to support the pharmaceutical industry that stipulates that Quebec pays patients for the original version of a drug for 15 years, even if cheaper generic versions appear on the market during this period. The cost of this measure has exploded by nearly 600% and should reach $174 million this year, according to government figures. However, most researchers agree that the costs of the rule probably far outweigh its benefits today. The 15-year rule was designed to encourage pharmaceutical research, but has not prevented the exodus of large research laboratories from the province in recent years. A month ago, the Institut de recherche en économie contemporaine published a study stating that Quebec could save $1 billion per year by reviewing its drug purchasing policies. However, these conclusions have been questioned by other researchers. Philippe Mercure FONDS DE SOLIDARITÉ FTQ Maintain the tax advantage The tax credit paid to new investors in the Fonds de solidarité FTQ is 15% at the federal and provincial levels. A few years ago, this credit was reduced from 20% to 15% by the two governments. A further five percentage point reduction would save approximately $67 million per year, half of which would go to Quebec. The FTQ Fund would still retain a tax advantage with a 10% tax credit. Francis Vailles QUEBEC DELEGATIONS AND OFFICES ABROAD Costs that are exploding Last year, Quebec paid approximately $3.1 million for its general delegation in Brussels, and nearly $1 million for its office in Barcelona. It also has offices in Paris, Munich, London... as well as Vienna and Atlanta. In total, Quebec has 28 offices and delegations around the world. From 2003 to 2009, the average operating cost was $45 million. The following year, the cost rose to $55 million, an increase of nearly 30%. The sum was to be approximately $55 million this year. That represents nearly half the budget of the Ministry of International Relations ($115.9 million for 2012-2013). When the Action démocratique du Québec criticized these expenses, Premier Charest was furious. Nearly half of Quebec's GDP comes from exports, he pointed out. As for the increase in budgets, Minister Gagnon-Tremblay attributed it to exchange rate fluctuations and rent increases abroad. La Presse Affaires GENERATIONS FUND A superfluous contribution The Parti Québécois has committed to abolishing the Generations Fund and using its kitty to directly reduce the debt. By March 31, the debt will be approximately $5.5 billion, if Quebec allocates all the amounts provided for in the budget tabled in March. The then Minister of Finance, Raymond Bachand, planned to allocate the $718 million collected in water royalties and the return of nearly $200 million expected from the Caisse de dépôt et placement on the approximately $4.3 billion already deposited there as of March 31. The Caisse seems well placed to deliver these millions. Mr. Bachand had also planned to allocate the $300 million surplus accumulated in the Territorial Information Fund to the Fund this year. This required an amendment to the law, which was not adopted. Mr. Marceau is free to allocate this surplus or part of the royalties to other purposes. Rudy Le Cours PRIVATE SCHOOLS Tuition fees, bis By reducing subsidies to private schools by 4% (about $100 per child), Quebec would save $22 million per year. According to several economists, such an increase would be too small to affect private school attendance and swell the ranks of the public sector. It would therefore be a net inflow of funds taken from people who can afford it. Francis Vailles Call for all Cuts? New taxes? What would be your solutions to balance public finances? Let us know your suggestions at lpa@lapresse.ca

## ###ARTICLE\_START### ID:837

In a booklet entitled Sociétale démocratie: un nouveau horizon, which has just been published in France by Ligne de repères, Thierry Jeantet expresses his wish to see the Occupy movement and that of the indignant transform themselves so that they do not amount to a simple flash in the pan. To achieve this, activists must switch to action mode and undertake initiatives. Certainly, some commitments will have to directly affect politics, but this activism must also involve social economy entrepreneurship, warns Mr. Jeantet, that is, entrepreneurship linked to companies with shared responsibilities and results. A type of entrepreneurship that "corresponds to an expectation," he assures in a telephone interview from Greece, where he was attending the board meeting of an insurance cooperative. "There is an innovative business model that must be promoted, at the very moment when many political, union and social actors are looking for this model and have not all understood that it already exists and that it has already largely proven itself." On the eve of the International Summit of Cooperatives in Quebec, Thierry Jeantet hopes that light will be shed on "the real forces of the social economy, which are much more powerful and much better organized than is generally said." He recalls the results of the Global300 study, conducted by the International Cooperative Alliance (ICA). It is estimated that the 300 largest cooperatives together generate a turnover of 1,600 billion dollars, equivalent to the GDP of the country in ninth position among the world's economic powers. Moreover, in his latest essay, Thierry Jeantet argues that social economy players must stop being considered, or even considering themselves, as "a crutch of capitalism" or "a spare wheel to balance the problems of social cohesion". Rather than confining themselves to supporting roles, these cooperatives and mutual societies must dare to take the lead and establish themselves as essential economic players. "I think that the social economy also needs to strengthen its own resources. It has large cooperative banks and large mutual banks in its ranks, on almost every continent. They could certainly work more together to finance the international development of the social economy. This probably means that new financial vehicles must be invented and that the social economy has a duty to innovate." Also, the Internet could work in favor of the cooperative movement if it does not miss the boat, believes Mr. Jeantet. "The organization of civil society in the form of associations, cooperatives and mutualists can be facilitated by these new technologies," he observes. The opening up to free software, for example, stimulates this concept of cooperation, which is currently spreading in agriculture through free seeds. Web platforms also encourage loans between individuals and the "peer-to-peer" loan market. It is now possible for lenders and borrowers to conclude agreements without going through a bank. Cooperatives and mutuals, which have already created systems of shared private property, therefore have everything to gain from banking on the Internet to develop. In addition, the Internet and social media are accelerating this transition in the organization of work, within companies, from a vertical hierarchy to a lateral or transversal design. "This is already a habit of the social economy, which is used to bringing together different actors and making them work in a more horizontal than hierarchical way. The democratic functioning of cooperatives, mutual societies and associations has been moving in this direction for a long time." Collaboration 2.0 The new generations, growing up in this form of collaboration 2.0, are moreover increasingly conditioned to work in this way. "I personally think that this is an opportunity for the social economy, because it goes in the direction of its model." Also, the social economy would really revalue the work of employees, according to Mr. Jeantet, while the current system, "which makes the unproductive rich richer and the productive poor poorer, is finding its limits. The value of work that we are trying to bring back into the spotlight is only a smokescreen praised by those who do not work but who speculate," he criticizes in his latest book. However, he specifies in an interview that "the wage gap in the cooperative world, compared to equivalent traditional companies, is on average much narrower." Discussions of a democratic nature, then well-established rules for a fair distribution of surpluses promote this equity, both among employees and, in some cases, among consumers. In the last year, the Mont-Blanc Meetings have undertaken several steps to raise awareness among world governments about the social economy. As part of the Rio + 20 conference, for which they had a formal pass, they sent a letter to 194 heads of state. This letter included twenty proposals related to five major social economy projects. Thierry Jeantet expressed his disappointment, like most representatives of civil society. He felt that the text adopted last June was "vague, without commitment and sprinkled with a few sympathetic statements," with the social economy being neglected, like several other concepts. "We didn't let ourselves get discouraged for a second," says Mr. Jeantet. The event organized by the RMB within Rio + 20 piqued curiosity and attracted attention, particularly among Latin American governments. Since then, a new awareness campaign has been launched among the 194 States, while the RMB prepares to intervene in the development of the sustainable development objectives for 2015. An ongoing dialogue has also been opened with international bodies, including the UN. While he admits that the cooperative movement is asserting itself, rallying and organizing itself more since the financial crisis of 2008, he warns that we must "be careful, because all of this must be consolidated. There is, in my opinion, still a lot of work to be done. We must not give up, but we feel that we are at a turning point. We must take advantage of it." Collaborator

## ###ARTICLE\_START### ID:838

TELEPHONY In Finnish, jolla means a small but sturdy boat. "A boat of modest size, but which is agile, and which resists in the storm", summarizes the Finnish Jussi Hurmola, CEO and co-founder of the start-up whose headquarters are in Helsinki. Currently, the company employs only fifty people, but plans to have double that by the end of the year. The subject of much speculation since its creation, Jolla clarified its ambitions last Tuesday. In a press release, the start-up announced that it had just raised 200 million euros by creating an alliance in Hong Kong with the "main players in mobile telephony". If Jolla refuses, "for the moment", to reveal the names of these partners, it does not hide its desire to impose its future smartphone on the Asian market. "This is surely the region where we will have the most opportunities", estimates Jussi Hurmola. The company's founders, Jussi Hurmola and Marc Dillon, both worked at Nokia, the Finnish group, former world champion of mobile telephony. More precisely, they had contributed to the development of a mobile operating system called "MeeGo". But Nokia abandoned this technology in favor of Microsoft Windows. So, the two engineers decided to leave, taking MeeGo in their suitcase. This system being "open source", open to contributions from the community, Nokia cannot assert intellectual property rights against the start-up. "We are in open dialogue with Nokia, in a fairly neutral relationship. There are no conflicts between us", promises Jussi Hurmola. The Ferrari of smartphones Jolla is to officially present its new operating system, Sailfish, based on MeeGo, on November 21 and 22, at a forum on high technologies in Helsinki. "Then, at the end of December, we will present our smartphone", indicates the CEO of Jolla. The device is expected to be marketed in spring 2013, in Europe and Asia. "Our goal is to sell 100,000 in the first few months. And to reach a million after a year or two." While Jussi Hurmola prefers to remain discreet about the characteristics of this phone, analysts promise that it will be a kind of Ferrari of smartphones. Thus, the high-tech specialist Ewan Spence writes in Forbes magazine that "its price will be higher, Jolla will sell fewer phones than the others. But as Ferrari shows, quantity does not always count, because some people also want to own something desirable and unique."

## ###ARTICLE\_START### ID:839

Manufacture anything and everything from our living room, with a simple click? What if each home was transformed into a micro-factory equipped with a machine the size of a microwave, capable of creating objects, food or human tissue (yes, really) on demand, from plans available on the Internet or from digital files that we have lovingly designed ourselves? For the youngest, the miracle machine would make a chocolate cake in the shape of Titeuf, for the uncle, unique sneakers, and for grandpa, a new set of dentures. Science fiction? The fantasy of an idle geek? "On the contrary, a horizon that is entirely achievable thanks to 3D printing!" replies the current buzz. A sign of the times, the very serious The Economist sees it as a "third industrial revolution" underway. Chat: at 12pm today, Monday, October 1st, ask Coralie Schaub your questions: 3D printing, the new industrial revolution Bikini by Amelia Agosta and Natasha Fagg seen at 3biggg Strate. Concretely, the principle of a 3D printer is similar to that of a basic printer. Controlled by a computer on which an object has been drawn, the device deposits material, layer after layer, until the object in question appears. Like a cart that goes back and forth to reproduce a text on paper. The only difference is that the "ink" used is a material (most often plastic, but also metal, ceramic, concrete, etc.). In itself, this technique, called stereolithography, is not new. It is even twenty-eight years old. "The first patent was filed by the Frenchman Jean-Claude André in July 1984. Followed a month later by that of the American Chuck Hull," recalls Alain Bernard, professor at the Ecole Centrale de Nantes and pioneer in the sector. History will remember the second, who created his company, 3D Systems, which became a heavyweight in three-dimensional printing: 2.2 billion dollars (1.7 billion euros) on the New York Stock Exchange. A priori, therefore, nothing new. Why is 3D making such a big impression today? For Georges Taillandier, president of the French Rapid Prototyping Association (AFPR), "the new thing is not the technology, but the multiplication of its applications thanks to digital technology and the Internet." Originally, 3D printing was imagined to manufacture prototypes quickly and cheaply, a boon that the industry seized upon. But as the technology improves and its price drops, it is increasingly used to "print" finished products. The Japanese firm Fasotec offers 3D ultrasounds. "This will soon be its major function," predicts American consultant Terry Wohlers, a leading specialist on the subject. "To date, Boeing has installed more than 22,000 parts produced by 3D printing in its planes. Airbus is also working on it. The process is not profitable for mass-producing large, simple objects, but lends itself wonderfully to limited series and small, complex parts." Hearing aids, orthopedic implants, dental crowns are already machined this way. Architects print models, engineers print racing cars... Drone. With its "additive manufacturing", layer by layer, the printer uses only the useful material and leaves no waste, unlike the somewhat silly machine tool, which drills and cuts into the mass. The products are stored in digital form and no longer physically, with even more savings to be made. The 3D file can be modified to make ever-different parts. And print articulated objects in one piece, others containing moving parts in increasingly sophisticated materials. Not a day, lately, without the announcement of an exploit. Wow, a violin made of imitation wood polymer with a pleasant sound! Gee, a two-meter drone flying at 160 km/h! Blimey, soon a complete telephone, electronics included! Wow, beating heart tissue, printed in human cells! Crazy, this Japanese company that sells you a resin replica of your unborn baby. Yum, an artificial steak! Peter Thiel, historical administrator of Facebook, bet between 250,000 and 350,000 dollars on the start-up that is trying the experiment... Adapters for iPhone sockets from Shapeways While waiting for the delights of the printed T-bone, we can already lick our lips at the magnificent promises announced by the democratization of 3D printing. Because it is now accessible to SMEs and individuals. Printers are available on the market for less than 400 euros. Far from the 15,000 euros (and up to more than a million) to pay for an industrial version. As a result, 23,265 "personal" machines (under 4,000 euros) were sold in 2011 worldwide, according to the latest report by Terry Wohlers. A jump of 289% over a year. Most of them ended up in middle schools, high schools and universities. It is also thanks to the university that 3D is becoming more democratic. The RepRap, an open design and open fabrication machine - based on the open source computing model - was designed at the British University of Bath to be able to "replicate" itself by creating... another RepRap. More than a tool, a political vision. "Fab labs". After sharing music, it's time to share tangible things. "The community is a great vector of innovation, because everyone improves the object," rejoice the founders of the young Parisian company CKAB. The latter applies the precept by perfecting the machines of MakerBot, a New York company that has become a leader in open source 3D printing via the sharing site Thingiverse. Starting in the United States, the maker movement, these fans of "do it yourself", is spreading. In the fab labs, these digital manufacturing laboratories open to the general public, there is an air of mutual aid, the idea of offering everyone the means to make the object of their dreams. Of reappropriating the production tools. An ideal of autonomy, almost subversive. Replicator 2 printer from MakerBot (which is not open source) Down with stores full of standardized products made in China, glory to craftsmanship 2.0! Because among the hopes raised by 3D printing, there is also the very fashionable one of relocating production. A holy grail in these times of stagnation. Barack Obama himself sees it as a form of salvation. Announcing, in mid-August, the creation in Ohio of a research center dedicated to additive manufacturing, he was enthusiastic: "This institute will ensure that the industrial jobs of tomorrow are no longer in China or India, but here, in the United States." So, will everyone soon be "serial printers"? Wait a minute. "It will take more than five years to get out of the niche market. Cost, speed and printable materials are the three main factors slowing the mass adoption of 3D printing by consumers," cools the Gartner firm. "The materials cost 50 to 100 times more than those used for plastic injection molding. And we can only print about 200 materials at the moment, which is very few compared to the thousands available," says Terry Wohlers. For example, it is currently impossible to use leather, wood or textiles, even on professional machines. As for the final result of personal machines, it leaves something to be desired, with a very limited choice of materials (basically, plastic or... plastic) and surfaces that are less smooth than those produced by a mold. Printing an object takes half an hour per centimeter (it would take 775 days for a life-size Eiffel Tower). Another problem: 3D risks becoming a legal quagmire. How can intellectual property law be applied if everyone makes copyrighted trinkets? Especially since, as 3D scanners become more sophisticated, we will all be able to scan the latest Barbie with our smartphone and copy it immediately. Mattel will appreciate it. So some people are worried: will the lobbies kill disruptive technology like the music majors have crushed Napster? Suspense. Articulated model "Petunia" by Macouno (Shapeways) In the meantime, nothing says that Mr. and Mrs. Average will have the capacity and patience to machine their coffee maker or their sex gadget using computer-aided design (CAD) software. However, the obstacle is already being overcome. Some smart people have smelled the vein, who are launching into online 3D printing services. Created in 2009, the French company Sculpteo is playing in this field at the international level, facing the American company Shapeways. The user can download a 3D file on the site. He also has the possibility of personalizing a model designed by professional designers. The object is then printed in a workshop in the Pyrenees and delivered by post. For now, it's mostly jewelry and gadgets: iPhone cases or mugs featuring your best profile, sculptures of your apple... A new Frenchie on the market, 3biggg hopes to make a splash by allowing you to print a child's drawing in three dimensions. You send the scribble, and hey presto, a graphic designer models it and 3biggg sends you the corresponding statuette. Mother's Day every day! "Tableware." But "3D service" companies are already looking further ahead. "We want to be the PayPal of 3D printing," proclaims Clément Moreau, the co-founder of Sculpteo. In short, just as the American PayPal monopolizes online payments, the French company wants to dominate 3D production on the Web, via general public portals. "We can imagine Habitat launching a customizable tableware manufacturing service or Orange doing the same for mobile phone cases," anticipates the boss of Sculpteo. Who is enthusiastic: "3D printing is inevitable and will change the world. Not so much through personal printers, which are a great game but are only a game, but through the production of small series in small workshops." Vases offered by Sculpteo A telling sign, "big business" is taking the subject very seriously. Jeff Bezos, CEO of the online sales giant Amazon, has invested in MakerBot. "I could see Apple or Google getting interested in 3D printing," confides Terry Wohlers. When the semiconductor industry emerged in the 1960s, no one knew where it would go, but many guessed that it would become huge. It's the same for 3D printing, which will revolutionize many sectors. Researchers are even working on printing medicines or houses!" As long as this process is not used to tinker with a real gun on the corner of your table... Oops, darn, we are being told that a guy has just successfully carried out the experiment in the United States...

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Why a digital minister? Do we need a new structure when the current norm in public administrations, given the state of finances, is to focus on efficiency? This is the first question that came to mind when I read in La Presse this wish of several entrepreneurs and consultants, namely that Ms. Marois appoint a digital minister in her government. No one can deny that we have shifted from a post-industrial society to one of knowledge and information. Digital technology is present everywhere in our lives and this change has enormous impacts on all spheres of our society. Culture, work, health, governance, digital technology is disrupting everything, our economy and our way of life. And the government must play a driving role in facilitating this transition to digital technology. However, it would be "burying our heads in the sand" to claim that Quebec has successfully transitioned to digital technology. Since 1995, we have lost count of the number of reports that have indicated to the government the (digital) path to follow and that are now shelved. From Parizeau to Charest, no government has shown any real desire to jump on the digital bandwagon, with the delays that we are experiencing today. POLITICAL STRUCTURE But to go from there to wanting to create a new structure? Political, moreover? What if we eliminated part of the political factor precisely by appointing not a digital minister, but rather a Chief Information Officer (CIO) who, like the Auditor General or the Public Protector, would report to Parliament and not to a minister or even to the Prime Minister. Unlike a digital minister who would only benefit from marginal political weight, the Chief Information Officer would have all the powers to intervene in all ministries in order to impose a guideline that would be that of the common good and the interest of the State. Unlike a "politician", he would therefore benefit from the neutrality, independence and impartiality necessary to assume his function. Thus, a Chief Information Officer would have all the latitude necessary to impose (or not) free software in relation to the common good and the interest of citizens. Similarly, he would be the one who would enact good practices regarding the disclosure of data from different ministries in an open format. In short, the CIO would be the one who would develop, without any external influence, policies on information management and who would make the government a model to follow. AGENTS OF CHANGE Obviously, politics has its place. In their mandate letter, a prime minister would tell his new ministers that they must be agents of change and that digital technology is now a priority for this government. Culture, work, health, economy, governance, a so-called "digital" government would have all the latitude possible to shift civil society once and for all into the information society, without forgetting anyone, however. By giving back to politics the place that is theirs, and to the DPI that of managing the digital transition of the State without any influence, this would also contribute to avoiding the formation of a future Charbonneau 2.0 commission.

## ###ARTICLE\_START### ID:841

"We don't transport illegal material, but I defend free downloading. In Guatemala, there are no books. If I want a philosophy book in French, I won't find it, so I go to a digital book sharing site and download it," Renata Avila, a 30-year-old Guatemalan woman I met this week during the bus stop in Buenos Aires, told AFP. Renata and her companions began a journey of some 8,000 kilometres in early September, which has already taken them to Uruguay and Argentina, before stops in Paraguay and Chile, for a planned duration of five weeks. Teresa Sampere, a 31-year-old Spaniard, told AFP that she wanted to repeat the first journey of the "LibreBus", made in 2011 in Central America (Costa Rica, Nicaragua, Honduras, El Salvador and Guatemala) at the initiative of the two young women. The idea is to defend "freedom of expression on the Internet, the freedom to share open educational materials, free software" of rights, as well as issues related to the defense of the environment, explains Beatriz Busaniche, a 42-year-old Argentinian who coordinates the stages in her country, at the foot of the bus. In Buenos Aires, the bus was opened to the public, allowing them to have access to digital books, music ready to download, as well as a scanner to digitize books without damaging them. This tour comes at a time when an Argentinian judge requested on September 12 that a trial be held for "violation of intellectual property" against the three creators of the Argentinian website Taringa!, a social portal for sharing content. This is the first trial held in Argentina concerning the intellectual property of musical, literary and cinematographic works. At the beginning of the year, the American justice system decided to close Megaupload.com, an emblematic and controversial platform for direct downloads on the Internet.

## ###ARTICLE\_START### ID:842

In the early 60s, the scopitone appeared, a reel-to-reel jukebox that was the ancestor of the video clip. These filmed refrains laid the foundations for a new genre based on the encounter between video and music. In the digital age, where sounds and images are nothing more than a whirlwind of bits, audiovisual shows have become increasingly sophisticated, propelling old-fashioned "sound and light" into the new millennium. Ancestral illusion techniques are combined with high-tech, magic lanterns and video mapping, laser shows and holograms, robotic sculptures and augmented shadow theaters for immersive experiences where all the senses are solicited. Pantomime. In the digital phantasmagoria department, the Coachella festival in California stunned the audience on April 15 by resurrecting the murdered rapper Tupac via a (fake) hologram that was larger than life, while the Japanese band SIRA-O are taking their cyberpunk variety show to Europe for the first time, a sort of Kraftwerk on speed mixing electronic music, calibrated pantomime and visual effects (currently on tour in Germany). To get an idea of the state of the art, go to Nantes on Tuesday at the aptly named Scopitone (September 18 to 23), which, in addition to its electro evenings, offers a digital tour in six locations in the city, with a certain number of works presented for the first time in France. To discover: MOL, the holographic projection of the Japanese aesthete Ryoichi Kurokawa, who will work with digital matter live, or the robotic performance of Cinétose, which activates steel plates above the spectators' heads, shaking up the usual spatial references. More intimate, the miniature theater The Icebook, mixing pop-up books and video projections, or the abstract eruption of the Icelandic volcano revisited by Joanie Lemercier, from the AntiVJ collective, figurehead of this "post-VJ" culture with 1024Architecture. The latter are in the process of putting the finishing touches to their performance, Crise (after their previous opus Euphorie, sic), which will be presented, in Créteil, to open the Nemo festival, THE rendezvous for audiovisual live performances, which will celebrate its fifteenth anniversary at the end of November (with Monolake and Underground Resistance among others). Scopitone serves as an appetizer for the electro tour de France in October. curiosities. First, head to Rennes, for the Cultures electroni[k] festival, where we find the AntiVJ and the visual artist YroYto in a sound-image coupling with the dirty rock of the trio Cheveu. Then Pau, where the Accès(s) festival is interested in new electronic luthiers and digital craftsmen adept at DIY, with an exhibition devoted to the Russian pioneers of "graphic sound", Generation Z, designed by Andrey Smirnov, from the Theremin Center in Moscow. Experiments that have influenced artists like the German Derek Holzer who will present his Tone Wheels, or tone wheels converting images into sound. In Aix-en-Provence, it is the troublemakers of the Gamerz festival who will once again shake up the bourgeois city with installations and performances devoted to games (video, but not only) and their diversions. Among the curiosities, My Computer Starts Smoking, where a PC smokes a hookah according to the temperature variation of its processors; or an urban symphony based on "prepared cars". The festival also gives pride of place to collaborative practices, hosting in particular a Peertopeertopeer evening, whose motto is "bring back your links". While many festivals explore the illusionist potential of these technologies, Mal au pixel strives to dispel this smoke and mirrors and to show a less glamorous side, that of surveillance networks. The event, which focuses on the culture of "do it yourself" and open source practices, invites hacker artists to the Gaîté Lyrique in Paris at the end of October, whose works question this culture of transparency. Such as Memopol II by the Estonian Timo Toots, a panoptic machine which will, from the visitor's identity papers, collect and display personal information collected from databases and the Internet. Rather than being victims, Mal au pixel suggests taking part in a workshop to identify and intercept surveillance camera feeds. In his 1981 manifesto, What Are We Watching?, Antoni Muntadas asked the public, with their retinas fixed on the TV screen, to ask themselves this question. In the age of the Internet, the proliferation of screens and transmitters, it remains relevant. Starting on October 16, the Jeu de Paume is dedicating a retrospective to the Spanish artist, a pioneer of multimedia art, who has worked for forty years to highlight the visible and invisible systems of power in our information society.

## ###ARTICLE\_START### ID:843

Tired, scared, pissed off (delete as appropriate), you've decided to leave Facebook. Yes, again. Yes, finally. First of all, it's not easy: Facebook does allow you to suspend your profile, but you have to dig deep into the site's help to finally find the deletion form. Next, leave Facebook to join which social network? Twitter seems the most appropriate, but posting photos of your newborn there would be #suicide. LinkedIn and Viadeo, the social networks dedicated to the world of work, are no better suited to the story of Saturday's costume party, the one where Julien, dressed as a hot dog, broke his ankle singing "ça fait rire les oiseaux et danser lesécureuils" (It makes the birds laugh and the squirrels dance). You can always try the newcomer among social networks, Best of All Worlds, but the place is as exclusive as Vincent Bolloré's yacht and is currently only accessible by invitation. Unthink, then, the anti-Facebook network launched in October 2011? Sorry, it died in early August. The best alternative could ultimately be Diaspora, a decentralized network that allows its members to store their data (personal information, photos, etc.) wherever they want. Its creators have just offered its infrastructure to the community this week on the principle of open source. A sort of Facebook by and for the people, which unfortunately has a cap of 400,000 users at the moment.

## ###ARTICLE\_START### ID:844

To operate its search engine and its various applications, the American giant relies on thousands of computer servers around the world. These strategic installations, which are barriers to the entry of new competitors, are also technological challenges. Like technology companies, Google has its dark sides. While the mathematical algorithms that make its search engine excellent are jealously guarded secrets, there are a lot of unknowns surrounding the gigantic computer centers that the American giant has around the world. And for good reason, without these "farms" of computer servers, Google could not deploy its application services (including cloud computing) everywhere (or almost) on the planet. These infrastructures are so strategic that Google designs and assembles all of its computers, which run on the Linux operating system (free software). Because, in addition to the computing power needed to run its own applications, the company uses computer servers to store its data and that of its customers. Google therefore also has "industrial" know-how in the assembly, connection, security and management of computer servers. But where are Google's factories? It is impossible to get an official answer. According to the American press, Google has more than 900,000 servers worldwide. According to experts, this would be two to three times more than its main competitors. As for their location, it is also subject to speculation. While the Google site lists eleven data centers installed mainly in the United States and Asia (and two in Europe), their number would in fact be two to three times greater. These installations are expensive: more than 600 million dollars (478 million euros) for the Dalles site in Oregon and nearly 300 million dollars for the Changhua site in Taiwan. Energy costs Setting up a data center requires a stable location (outside of seismic or mountainous zones), large (for the one in Taiwan, Google bought a 15-hectare plot of land), and it is also necessary to guarantee a powerful electrical infrastructure, capable of powering the machines and ensuring their cooling. The result is huge energy costs, regularly denounced by environmental protection associations. This is why Google has launched (with great fanfare) a vast environmental plan aimed at reducing the consumption of its server farms and its energy footprint. "We are the only Internet company to have eliminated our impact on the climate since 2007 and our data centers consume 50% less energy than traditional data centers," assures the company, which specifies that a third of its consumption comes from renewable sources. According to the New York Times, its energy expenditure is equivalent to the consumption of 200,000 homes each year...

## ###ARTICLE\_START### ID:845

The “do it yourself” tech craze has a new avatar: gardening. Two young Texans, Will Bratton and Samuel Bagot, are proposing to simplify the life of the amateur (and organic) gardener with an automated, remotely controlled greenhouse. “A lot of people have the space to garden but they don’t have the time,” laments Will Bratton, who dreams of everyone “freeing themselves from centralized production” and having healthy food. “People will only have to focus on the essentials: planting, harvesting and eating.” Their project, Horto Domi, has received more than $11,000 through the Kickstarter fundraising platform, which hosts many DIY projects. This money will be used to distribute the plans and instructions for the third version of the greenhouse, so that everyone can build their own dome. The philosophy is that of open source, that is to say maximum transparency for the widest possible distribution and improvements made by the user community. New sensors to better control the parameters of the garden are already in development. The inventors are even imagining several greenhouses connected to each other for more massive and diversified production. Once the greenhouse is built, the amateur gardener only has to feed the earthworm bin with his peelings or manure (which provides better results). "The idea is original. But we can assume that this project was developed by specialists in electronics rather than in agronomy. I wonder about the control of fertilizer inputs, which can depend on the crops for example," explains Philippe Caillard, director of the National Center for Horticultural Promotion (Maine-et-Loire). It will also be necessary to pay attention to the thickness of the soil to be able to plant carrots or the height of the roof for tomatoes.

## ###ARTICLE\_START### ID:846

The invention of writing (with agriculture) allowed us to emerge from caves to create cities and states, that of printing (with the use of fossil energy) led to industrial and democratic societies. Digital technologies will change our societies as much as writing and printing, but how? For a more hierarchical, unequal, violent society, subject to the dictates of the wealthy, or for a more collaborative society that respects each individual and the planet? These are political choices that citizens can influence, even provoke. There is no shortage of signs of the evolution in the first direction thanks to digital technology: control of marketable knowledge by multinationals (ACTA conspiracy on the use of patents and copyright), financial speculation, media centralization, loss of privacy. Politicians are responsible for this through the laws they vote under the influence of acquired positions, lobbies or the alibi of economic orthodoxy and security. Responsibility shared by poorly informed citizens who let them do it. But there is also an evolution in the other direction. To understand, we must become aware of the nature of digital technology, which reduces the cost of copying and storing information of all kinds to almost zero, allows their instantaneous circulation without limit, and involves the use of an artifact, software. On the one hand, it paves the way for sharing, collaboration, transparency; on the other, it authorizes control via the mastery of standards and software. One of the issues of the current campaign is corruption. To combat it, we can legislate or investigate, but also rely on transparency. There is an international movement, which digital technology allows, open data, the objective of which is to give citizens the means to participate in the management of public resources. It is recognized by our government, why do we hear so little about it in the media? Without campaigning for Anonymous or the Pirate Party, there is nevertheless a powerful and affordable way to revolutionize political morals and practices in the direction of citizens' aspirations. Another issue is public spending. There is a lot of free software developed using a proven sharing model that avoids costly monopoly rents while ensuring the sustainability of access to "digital heritage". This is known in government and political parties, but since citizens are often unaware of it, the economic impact remains hidden and changing software is considered too difficult: general silence. And yet our future freedom depends on software and standards. Thus, our schools and our government should only use standards and free software, the educational and sustainability objectives require it, the medium and long-term savings justify it, but this would open the door to a free culture which, by promoting local activities, would hinder the field of powerful multinationals and their profiteers who inundate us with "indispensable" gadgets and fun, obsolete as soon as they are released. Daniel Pascot is a full professor, Department of Organizational Information Systems, Université Laval. He is also the president of Facil (Facil: for the collective appropriation of free computing). He speaks as a citizen. \*\*\*React to the comments of our guest blogger on the blog Elections 2012

## ###ARTICLE\_START### ID:847

Parkinson's disease is degenerative and devastating. Treatments attack the symptoms, delaying the inevitable end for its 6.3 million victims worldwide. The increase in life expectancy suggests a surge in this pathology. Doctors and laboratories are groping. Patients are sinking. No treatment can cure the disease. To better understand the disease, it would be necessary to be able to test treatments more quickly, and to do so, benefit from large samples of patients. A dream in this period of crisis for States and pharmaceutical groups. A project in good and due form for Max Little, researcher at MIT (Massachusetts Institute of Technology) in applied mathematics. "Today, we do not know how to help Parkinson's patients, in particular because we do not know how to read the evolution of symptoms. We do not have the accessible and easy means to monitor this objectively. » Max Little opened the conference with a promise that you only hear at TED: soon diagnosing Parkinson's disease and tracking its progress will be, literally, as easy as a phone call. And practically free. He is one of the "TED Fellows", these high potentials with ideas bigger than an ocean, identified and invited by the organization. In his early forties, Max Little thinks like a huge processor. He talks about his work, the application of mathematics to speech disorders, with rare patience. Pedagogical, jovial, he is not a theoretician hiding in his tower of equations. His humility and pragmatism are astonishing. His research began in 2003 during his PhD (research doctorate) at Oxford. He believes that mathematics can help us better understand the voice. "I was looking for a field of application. I became interested in dysfunctions. For example, how can a surgeon who operates on vocal cords - particularly after cancer - know, objectively, that he has succeeded? Max Little launched into clinical analysis, worked with doctors, published, created algorithmic models. In 2006 in Toulouse, during the International Conference on Acoustics, Speech and Signal Processing (Icassp) on electronics, acoustics, speech, he was approached in the corridors by an Intel researcher. The firm was working on tools to monitor the development of Parkinson's disease. One of its founders had invested a good part of his fortune since he knew he had the disease. Specifically, Intel researchers recorded the voices of fifty patients, once a week, for six months. But they didn't know what to do with the data. A godsend for Max. Intel challenged him, organized a blind test. With the help of his system, he had to identify the patients. He responded with 86% reliability. "The voice is the result of coordination of the larynx, diaphragm, vocal cords, tongue and lips. In a Parkinson's patient, this coordination is impaired. The voice has rigidities, weaknesses and tremors. It is a good marker of the disease. It is possible that it is even one of the first functions affected. I am not yet sure, but, in any case, Parkinson's is detected by the voice, even at a very early stage." Max Little works from recordings. He applies a battery of algorithms (300!) to transform a sound signal into a number. "We look for about ten data that characterize your voice, such as the regularity of the vibration of your vocal cords, the amplitude of movement of your lips. And then we use "machine learning" (autonomous machine learning) to link this data with concrete information, such as the presence or absence of the disease, its severity. » The field of questions opens: what are the causes of this pathology? The populations at risk? How to optimize treatments? To answer them, research needs a large sample: "The methods used to diagnose and monitor diseases are far too expensive. For Parkinson's, you have to go see a neurologist. The test lasts twenty minutes, but it costs $300 [in the United States]. To confirm the disease, the doctor has to try a treatment. About a month later, if the symptoms get worse, he will say that you have Parkinson's. It is long and complicated to diagnose, as for knowing what stage of the disease you are at, forget it! We need a simple, low-cost tool, to be distributed as widely as possible for an objective and rapid response." And, according to Max Little, this tool is the telephone, used by five billion people. Ultimately, he wants to create an application that will allow anyone to carry out a diagnostic test from home or to monitor the evolution of symptoms. He launched a special call for donations at TED: "We need to collect 10,000 votes to build our sample. The idea is to identify problems that could lead to misinterpretation (interference on the telephone line) and define the optimal test (duration, frequency). And then we want to be sure to look at the right criteria." The Parkinson's Voice Initiative has already collected 6,200 contributors in one month. "But I really need your readers to call us," he concludes with a smile. To be able to participate, simply call 02-49-88-05-76, whether you have the disease or not, and answer the questions. The test is anonymous and free. For Max Little, is fortune within reach? That's not the goal. "The idea is to make this technology accessible to everyone, individuals and laboratories alike. We are thinking about the best way to do it: should we or should we not partner with the free software movement to establish a free application on the iPhone? Get closer to the pharmaceutical companies so that they use it and lower their research costs? Our goal is to accelerate the discovery of a treatment. Today, it is no longer just a question of money, but of access to data. " This mathematician wants to revolutionize diagnosis and accelerate the treatment of neuronal diseases. Astronomical sums are at stake. He works on the voice. His is clear, his reasoning limpid. He is sure to succeed. We want to believe him. At his word.

## ###ARTICLE\_START### ID:848

Through regional groups of tinkerers and new technology enthusiasts, Quebec is slowly falling under the spell of "economy 3.0," an economic model that places high-speed Internet, open data and free technologies at the heart of regional and rural development. Economy 3.0 is a term recently put forward by the World Bank. It was born in response to the effects of the relocation of the manufacturing sector. A factory that deserts a village leaves thousands of skilled workers without jobs. Economy 3.0 is when these workers use their expertise for the benefit of the community. It is a celebration of the common genius, this garage tinkerer on which much of the culture of new technologies in general and Silicon Valley in particular is based. Except that it goes further: some see it as the birth of a new form of social organization that could revitalize these regions where industrialization has only just passed through. On August 25 and 26, the Montreal Maker Faire will be held at the Olympic Park, a mix of conferences, exhibitions and workshops that illustrates this phenomenon well. Many tinkerers will come to present their creations, under the theme of "do it yourself" (DIY). Originating in California, the Maker Faire movement has existed for about five years. In Montreal, curious visitors will see 3D printers, robotic systems and other high-tech objects made at home. "The arrival of high-speed Internet in rural areas allows for a different economic development, based on cooperation between different sectors of activity. What exhibitions like the Maker Faire demonstrate is that with a relatively small investment, communities can experiment with technology in order to meet their needs and stimulate the local entrepreneurial spirit," explains Marc-Olivier Ducharme of Communautique, a non-profit organization that wants to encourage citizens to take ownership of technologies. A "patentaire" economy Earlier this year, Mr. Ducharme founded EchoFab, a project aimed at creating, among other things, a very low-cost automated irrigation system that could suit both urban green roof owners and farmers looking for an affordable, cutting-edge solution. At the end of the project, EchoFab will create an online tutorial explaining how to make this system yourself. This is another example of economy 3.0. There are other examples in Quebec and around the world, grouped under the name FabLabs, "small-scale digital fabrication laboratories" supervised by the prestigious Massachusetts Institute of Technology (MIT). While Maker Faires are large-scale exhibitions intended for the general public, FabLabs are aimed more at those who want to get involved. "As factories move to other countries, the idea is to reclaim manufacturing sites for local purposes," explains Mr. Ducharme, who cites the example of the city of Detroit, deserted by the automobile industry, but where a social economy made up of tinkerers and tinkerers has gradually emerged. "Detroit has a huge mass of workers with very good technical knowledge from the automobile industry. The economic downturn has forced people to look at their situation and the notion of the common good differently," he adds. With open source technology, FabLabs and Maker Faires, this is the kind of thinking that is coming back into fashion all over the world. Quebec, where the manufacturing sector is suffering while the technology sector is thriving, is no exception to this trend.

## ###ARTICLE\_START### ID:849

Even before Premier Jean Charest officially launched the call to vote on September 4, the two co-spokespersons for the left-wing party, the symbolic red square pinned to their bodices, presented their slogan, "Debout." This word is broken down into five themes: free education, protection of natural resources, electric transportation, dignified retirement and independence for Quebec. "It's a short word but full of meaning," said Ms. David. "Debout comme du bois d'boute, debout comme tous les ceux qui n'a pas abdicait," she added, even calling Quebec "rebel." Because of the values it conveys, Québec solidaire believes it can expand its parliamentary team, which only includes Amir Khadir (Mercier). About fifteen ridings are in the sights of the small party, which claims to have ambitions outside Montreal. "If Québec solidaire does not claim to be able to form the government, it is necessary in the National Assembly. If a single Québec solidaire MNA has managed to make a name for itself, imagine what we could do with a team of two, three or more!" said Ms. David, who herself is running for office in Gouin, a riding held since 2004 by PQ MNA Nicolas Girard. Québec solidaire, which is in its third election campaign, has received little more than 8 or 9% of voting intentions in recent polls. Despite everything, Amir Khadir believes that voters can choose "hope." According to him, if Quebecers were only concerned with voting based on the formation of a government, "there would be no progress and we would still be with a Duplessis government." Within ten days, Québec solidaire intends to present the financial framework of its commitments. "We have the right to dream, but we also know how to count!" Françoise David said. Furthermore, the so-called "national" tour of the two co-spokespersons is limited to eight events. In addition, the party has launched a new website built on free software.

## ###ARTICLE\_START### ID:850

In the small office of her apartment, Sacha Leroy regularly consults the forum of the association site Lesarnaques.com, of which she is the lawyer. Consumers share their grievances there when they feel they have been cheated: phone paid for but not delivered, after-sales service that does not respond, problem with an access provider, a real estate agency or a wedding ceremony organizer... They are all the more numerous because registration is free. Twelve people moderate their opinions, deleting exaggerated or outrageous comments, and take charge of organizing mediations, always free of charge, with the merchants incriminated. After having shunned the site, professionals had to admit that it was better to collaborate: 416 of them do so regularly. Among them Priceminister.com, Voyagessncf.com, or Lookingo.com, not to mention those who intervene occasionally. On her computer, Ms. Leroy looks to see if there are any “recurring complaints” against a particular seller. “If there are, I’ll look at their site, and first of all its general appearance. If it was designed for free using an open-source editor, I’m wary: how can the retailer buy stock if they don’t have the money to invest in the presentation?” “Drop shipping,” or selling without stock, which requires the consumer to wait for the goods for several weeks after paying for them, is a frequent reason for complaints. Sacha Leroy examines the legal notices: in particular, she checks that the sellers are registered with the Trade and Companies Register, then consults company information sites, such as Societe.com or Infogreffe.fr, to find out their registration date: “I’m wary if they’re brand new.” When there are no legal notices, she looks up the owner of the domain name on a site such as Whois-raynette.fr. "If it remains anonymous, be wary again!" Ms. Leroy then carefully reads the general terms and conditions of sale - which generally put off consumers: "If they are poorly translated, or copied and pasted, they may be foreign sites, likely to offer counterfeits." She jumps when she finds clauses such as: "The seller cannot be held responsible for his inability to deliver the product." This volunteer, who is also a union representative specializing in labor law, has carved out a nice reputation for herself in the world of fighting fraud. Headhunters sent by e-commerce sites offer her to do, for a good salary, the work she provides for free on Lesarnaques.com. It is thanks to her, as well as to the president of the association, Joël Guillon, that many police officers, prosecutors and judges know about the site: "Its representatives are highly valuable contacts for Cyberdouane and for other repressive services of the State [General Directorate for Competition, Consumer Affairs and Fraud Control, for example]", confirms to Le Monde Luc Strohmann, the Cyberdouane manager of the National Directorate of Intelligence and Customs Investigations. Xavier Dutertre, in charge of the e-reputation of the site Rueducommmerce.com, specifies that "his services always pay close attention to information that comes back on merchants considered to be a threat". He was also the first professional to agree to mediate on the forum. The same story from Groupon: "We have cancelled the sale of fake Beyblade tops following reports from customers on the scam forum", indicates its press service. Lesarnaques.com is a site feared by crooks, because it is on its forum that they are detected. "When there is a problem with an e-retailer, this is where it is first known," explains Mr. Guillon. "When we see that there are several messages concerning the same seller, we group them together. We advise their authors to send a complaint to a single authority, whose contact details we give them. Indeed, when a departmental directorate for the protection of populations receives a complaint, it does not react. When it receives twenty, or fifty, it opens an investigation," explains Sacha Leroy. When crooks realize that they are being talked about on the forum, they often register, under a pseudonym, in order to dissuade aggrieved consumers from filing a complaint. They send them messages like: "It's not worth it, it's no use, it's doomed to failure..." "When we spot them, we take their IP address and send it to the police, who send us a legal requisition," adds Ms. Leroy. Following the intervention of the Arnaques, a number of small-time scammers operating on auction sites have been arrested. One of them, for example, sold the same items for months on Leboncoin.fr: a state-of-the-art telephone, a computer, a leather jacket. He collected the money more than fifty times, without ever sending anything. The damages amount to 20,000 euros, according to the Montpellier financial brigade. Thanks to the scams, at least five sites have been closed down: this is the case for Perenoël.fr, which sold computer equipment, Multidiscount, Atecadiscount, Priceforce, and Showroom2001. Starlight Europe, a company specializing in the resale of sold-out concert tickets, is also on the list of convicts. Many Internet users who never received the tickets they paid for Johnny Halliday concerts, for example, have complained on the forum. The prosecutor of the Versailles criminal court has requested a two-year prison sentence, including one year in prison, against the operator, Alban Salim Bennacer. It is therefore an understatement to say that the site has made enemies, given that it has just celebrated its eleventh anniversary and that, according to Médiamétrie-Ratings, it received 873,000 unique visitors in May, which allows it to have advertising revenue. From July 11 to 14, it was closed, following a hacker attack "from Morocco", according to its webmaster. At the same time, it was the victim of a defamation campaign on the Web: messages posted anonymously claim that the hosts are profiteers. However, they are all volunteers. Sacha Leroy regularly receives anonymous silent calls on his private phone, even though it is on the red list. Strongmen have come to insult him at his home. Joël Guillon, the president of the association, is also threatened. "A user sent me a malicious email giving me my address and the configuration of my house", he assures. The other way to strangle the site is to repeatedly sue it. "We win them all, but the damages awarded to us are far from covering all of our lawyer and travel costs", notes Mr. Guillon. Mr Bennacer therefore requested the dissolution of the association before the Paris High Court, as well as the astronomical sum of 300,000 euros. "In the meantime, it has been the subject of compulsory liquidation, and it has no assets allowing it to pay its debts; the sums that we could have earned cannot be recovered", regrets the president of the association. Another example: the company Le Partenaire européen, which offers to ensure the dissemination of real estate sales offers on different media, brought four lawsuits, following complaints from Internet users on the forum concerning anomalies in the operation of their contract (advanced collection date). The Montpellier High Court dismissed the claim and ordered it to pay 3,000 euros, the judges having considered that the opinions published "did not exceed the right of free expression and criticism". The company appealed, before taking the matter to the Pontoise court. "We are going to ask the judges to say that there is an abusive procedure," says Mr. Guillon. The managers of Arnaques fear ending up like their little cousins at E-Litige.com: they had to close in April, victims of their success.

## ###ARTICLE\_START### ID:851

In 2010, Monty Cantsin was seen speaking in Berlin against Internet censorship at the "Freiheit statt Angst" demonstration. He was young, round and bearded. At the end of June, Monty Cantsin gave a bloody performance in a dilapidated prison in Tallinn, Estonia. He was old, thin and tattooed. "Choose alienation, call yourself Monty Cantsin!" exhorted the punk. Don't expect to unravel the mystery by going to Facebook, where profiles abound, only adding to the confusion. Because Monty Cantsin is the "open pop star", the name of an international star that anyone can adopt, put out in the public domain without instructions. "The name is fixed, but the people who use it are not", says the elegant and laconic definition. Scribble. The name began circulating in the Portland underground in the late 1970s. The city, known for its vibrant punk scene, was then the nerve center of mail art, of which David Zack was one of the most prolific exponents. The artist created convulsive collages of texts and photos to which he added his own scribbles, typed notes, before photocopying them and sending them to the hundreds of “mail” artists in the network. Zack appropriated the works of other artists, but also took their names, crediting his own work under William Blake, Leonardo da Vinci, Antonin Artaud, and so on. Rather than usurp existing identities, he one day had the idea of creating a pseudonym that anyone could borrow, digital media researcher Marco Deseriis traces in his thesis on improper names (1). That this wacky idea emerged from mail art is hardly surprising. The art of correspondence was a radical alternative to the commercial art world and the notion of authorship at the time. Objects and ideas circulated through the postal network without claiming intellectual property, prefiguring the open-source community. The alias is the result of an experiment in sound poetry, as Zack tinkered with his favorite instrument, the Xerox 3107 photocopier, and tape recorders with Lithuanian poet and visual artist Maris Kundzins. “One night, Maris started messing around with the recorder, singing songs in Lithuanian about toilets and traffic. So we decided to make Maris a pop star. But she had to be an open pop star, meaning that anyone could assume her personality.” This open pop star would be the most talented of all time, better than Elvis Presley, Frank Sinatra, Sal Mineo and even Ry Cooder all rolled into one. [...] We were babbling around with the name Maris Kundzins and out came Monty Cantsins." A name that sailed between "can't sin" and "can't sing". Proud of their find, the two friends decided to offer the name (which lost the "s") to Istvan Kantor, sending him a postcard with these words: "You are Monty Cantsin, the open pop star." A figure of the Hungarian underground, Kantor met Zack at one of his exhibitions in Budapest. "I was amazed by his way of reproducing information, sending this information and building a network. Here, it's done on the Net, but at the time, it was through the postal system. Robert Filliou called it the eternal network,” recalls the fascinated artist who joined Zack in America. In 1978, he lived for a year in the bohemian house that the mail artist opened to people passing through, and enthusiastically adopted the identity of the open pop star. The initial plan to use the Portland punk scene as a springboard failed miserably. Monty Cantsin thus made a name for himself... in the city’s convenience stores. Kantor, constantly broke, would fake cardiac arrests, wailing in Hungarian, his cronies taking advantage of the confusion to steal beers. After his early days as a deadbeat, Monty Cantsin was propelled into the role of spokesperson for a new (pseudo) avant-garde. Back in Montreal, Kantor surrounded himself with a boisterous group of young punks, artists and philosophers (Zbigniew Brotgehirn, Kiki Bonbon) to create a fictional art movement, neoism. "A prefix [neo] and a suffix [ism] with absolutely nothing in between. Neoism does not exist, except in the reactions it creates." The birth certificate took place in Montreal, on May 22, 1979, with "Monty Cantsin sits down for a portrait." Passersby were invited to sit on a "neoist chair" to have their picture taken, like so many portraits of Monty Cantsin. Conspirators. Although the neoists aped the avant-gardes, it was difficult to know whether or not they took themselves seriously. Described as an ongoing performance in which anyone could participate—“my father, the pope, the police, the terrorists—” neoism “swallowed up all the modernist ‘isms’ and vomited up the pieces,” wrote C. Carr in the Village Voice in December 1988. “Jarry’s pataphysics, Marinetti’s manifestos, Duchamp’s ready-mades, Klein’s Leaps into the Void, Warhol’s fifteen minutes, Beuys’s alchemy, Maciunas’s games—they’re all floating in the neo-soup. Neoism is the last sip of what used to be called the avant-garde. Or maybe it’s nothing.” This view was shared by some followers who saw neoism as a “radical mind game.” Neoists made experimental video, poetry, fanzines, punk, electro-pop, and industrial music. All of this was activated at semi-private parties held at the conspirators’ homes. Known as APT Fests, these moveable “6 o’clock” festivals were held in cities across North America and Europe throughout the 1980s and 1990s. They featured parades with flaming irons, free haircuts, performances, and more spectacular actions, such as standing in for a seeing-eye dog, as in Brighton, where the Neoist alliance at war with Stockhausen, the embodiment of “serious culture,” threatened to levitate the Pavilion Theatre during the concert, and made it known in the press. “Every action taken under the name of Monty Cantsin is a gesture of defiance against the order of power and proof that the Neoists are ungovernable,” reads one of their many writings collected in A Neoist Research (by NO Cantsin). Competition. In 1982, during an APT in Germany, European artists such as Pete Horobin, Stewart Home or Stiletto joined the ranks, more interested than their American counterparts in the conceptual exploration of Monty Cantsin's identity. The first schisms appeared, with NO Cantsin and antineoism. Stewart Home, editor of SMILE magazine, the organ of neoism, accused Kantor of monopolizing the identity for his personal glory and launched a competing multiple identity: Karen Eliot. In fact, the Canadian performer adopted the identity to the point of merging with it, and continues today under this name, as during the APT organized at the end of June in Tallinn. The neoist manifestos define Monty Cantsin as an "empty figure", "a copy", but also as "an artist based in Canada who invented neoism". To finance the operations of neoism, Istvan Kantor-Monty Cantsin had planned to sell his blood as an object of art. In 1985, he launched the Blood Campaign, spraying his blood on the walls of museums accused of exploiting artists. Provocations that earned him prison sentences but also recognition from the milieu. "Kantor gave Monty Cantsin a body and a face, freezing the infinite potential uses of the name," notes Deseriis. Monty Cantsin thus never really became an open pop star. "If the name emerges from the altruistic ethic of mail art, the artists behind the pop star were too egocentric to give up their name." (1) "Improper Names: the Minor Politics of Collective Pseudonyms and Multiple-Use Names", Marco Deseriis. Ph. D., New York University, 2011. [Tomorrow: Luther Blissett]

## ###ARTICLE\_START### ID:852

Google is everywhere. On screens, everyone can see it: a quasi-monopolistic polyglot search engine, unrivaled consumer mapping systems (Google Maps and Google Earth), a mega-digital library (Google Books) linked to a merchant site (Google Play), an email service (Gmail) with an interface available in 40 languages, an automatic information compiler (Google News), an online and collaborative word processor (Google Doc) and an open-source operating system for smartphones and tablets (Android). Phew! Looking away from screens may no longer be enough to escape this hegemony. Born in 1998 in a garage, like any great American technological adventure, Google decided to go out into the street and extend its offering to augmented reality. Thus was created "Project Glass", a research and development program intended to provide numerous interactive features... a pair of glasses. The glasses are thus equipped with an informative display (weather, traffic, calendar), a proprietary messaging and social networking service, a microphone and headphones, a camera, a video camera, a geolocation system, etc. "One Day", the official Google video, filmed as it should be in subjective camera, follows the very ordinary day of a young urban American through his pair of glasses. Viewed some 17 million times, this faultless journey in a world where thanks to technology everything smiles, has inevitably been the subject of parodies. Nothing works as expected in Goggle-Project Dangerous Glasses. The untimely appearance of displays (including very intrusive advertisements) ends up endangering the user himself. "Nearest hospital?" asks a message, at the same time as a very opportune medical insurance comparison tool is displayed.

## ###ARTICLE\_START### ID:853

On July 4, the European Parliament rejected, by 478 votes to 39, the Anti-Counterfeiting Trade Agreement (ACTA), negotiated in opacity by 39 countries (including the EU Twenty-Seven represented by the European Commission). Thanks to this scathing disavowal, the result of an unprecedented mobilization of European citizens, Europe can no longer ratify this agreement. Initiated in 2007, the ACTA negotiations aimed to establish a set of repressive rules on counterfeiting, under the cover of a simple "trade agreement". Cheerfully combining the fight against industrial counterfeiting of material goods and the sharing of music or film files on the Internet between individuals and non-profit organizations, ACTA is the dream text of the pharmaceutical and entertainment industries. In 2008, the leak of a draft of ACTA on WikiLeaks sounded the alarm. The confusion between fake drugs and generics endangers access to care in poor countries. Concerning the Internet, technical intermediaries (access providers but also service providers such as search engines, video platforms or social networks) are transformed into a private copyright police. Obliged by rights holders to generalized surveillance, collection of evidence and sanction of their users, they are entrusted with police and justice missions, thus circumventing the judicial authority and the right to a fair trial. The door is open to restrictions on communications (blocking of access, filtering) and serious violations of privacy. As a result, many associations defending fundamental freedoms (access to medication and free software), but also volunteers, are organizing themselves in all corners of the Internet, creating an unprecedented spontaneous and decentralized citizen movement. For four years, legal, economic, technical and political analyses of the new versions of the text (most often leaked) were developed collectively via all available communication channels: discussion lists, sites, blogs, social networks, videos, chat, forums, etc. By dissecting the European procedure, groups and individuals understood that the European Parliament was the only bulwark against Acta. The network was then massively used to raise public awareness and contact European elected representatives, particularly before each of the six decisive votes in committee that preceded the final rejection. In early 2012, in the United States, the Sopa and Pipa laws - cousins of Acta - were rejected under pressure from citizens and Internet companies. Immediately after this violent setback inflicted on Hollywood, the Obama administration launched the FBI raid against the hosting site MegaUpload. A few days later, the European executive signed Acta. This series of events sets the powder alight and brings tens of thousands of citizens into the streets across Europe, mainly in Eastern countries. The overwhelming vote of July 4 is therefore above all the victory of all these citizens, interconnected in a decentralized way, and the consecration of their democratic participation. This victory must mark the end of the all-repressive model implemented for fifteen years under the impetus, and for the benefit, of a few industries. Acta is only one episode - certainly the most odious because it aims to circumvent democratic processes and international institutions - of this war against sharing. It is part of a succession of increasingly repressive, disproportionate and dangerous measures for our fundamental online freedoms which, like the Hadopi law in France, bring no benefit to the artists they claim to defend. It is urgent to break with this logic and to reform copyright law positively, to encourage our new online cultural practices, such as sharing and remixing, rather than trying in vain to combat them. It is urgent to put the rights of citizens, cultural participants and innovators before the interests of a few rentier intermediaries. As new threats loom, the victory of citizens against Acta must resonate as a demonstration that the networked public sphere can prevail against some of the most powerful industries. The battle of Acta must serve as a model and a springboard to impose the adaptation of copyright law to the 21st century and, beyond that, a protective framework for fundamental freedoms on the Internet, in order to encourage the prospect of a freer and more open future in our democracies.

## ###ARTICLE\_START### ID:854

SHERBROOKE - Zap Estrie is increasing the accessibility of its wireless Internet network, driven by the enormous growth in the use of smartphones. Zap Estrie has just completed the upgrade of its technological platform, which now means that a username and password are no longer required to access the Internet at the various ZAP service points. This new automatic authentication approach greatly facilitates and accelerates connection to the Zap network from iPhone or Android phones, which are increasingly used in the community, notes David Cournoyer, president of the operator Quatral Solutions. "We have had a lot of requests from smartphone users. It is now easier to enter the network without a username and password," he says. "We started thinking about it and came up with this solution that was obvious." This new feature is accompanied by a change of central server that will offer more power. The interface of the non-profit's website was also changed to make it more user-friendly, Mr. Cournoyer mentioned. The possibility of changing the equipment at certain service points is also being examined to increase signal reliability. "Initially, Zap was supposed to be a supplementary service, but it quickly became a more important service for users. Cutting off their internet is almost as important as cutting off their water," he said ironically. "Changing the equipment at service points would be a third step." After five years of operation, the Zap network has more than 275 access points in Estrie. They are spread across commercial establishments, educational institutions, municipal public places and community organizations. It is used every day by several thousand people. Since its creation, Zap has used exclusively free software. The ZAP network has 80,000 users, but this notion risks falling apart with the new password-free access policy, Mr. Cournoyer pointed out.

## ###ARTICLE\_START### ID:855

On July 4, CERN, the European Organization for Nuclear Research, announced the historic discovery of a new type of particle, which could be the long-awaited Higgs boson. Michel Spiro, President of the CERN Council, reviews the implications of this event. What does this discovery represent? This is a historic moment for CERN, the particle physics community and science. It is a major step forward in our knowledge of matter and the Universe. It has been expected for so long. It is also a turning point, because we will be on the lookout for the slightest flaw in the Standard Model. Is this new particle really the expected boson? Does it have properties that could open windows into the unknown, beyond what the current model explains? We are facing twenty years of research on the Large Accelerator (LHC). Will new accelerators be necessary? We are already preparing for the future, but we do not need to decide in Europe before 2020 for a start-up around 2035-2040, because we have the LHC until about 2030. Nevertheless, research and development is needed with two major options. Either a linear electron collider to probe matter. Or triple the energy of the LHC while staying in the same tunnel and always with protons to explore new regions at higher energy. In September, in Poland, we will start the review of the community roadmap for the coming years. Now that the missing boson has been discovered, how can we convince people to continue this research? If we find no evidence that there is something beyond the Standard Model, justifying new accelerators will be difficult. However, we have other big puzzles to solve. What is the dark matter that structures the Universe made of? What is the dark energy that accelerates the expansion of the Universe? Why has matter's twin sister, antimatter, disappeared from our environment? Neutrinos also raise unresolved questions about their exact nature: are they their own antiparticle, for example? What role will CERN play? First of all, we must emphasize the key role of this organization in the successful discovery of this new particle. It is because Europeans have been able to act with consistency and consensus that we have managed to successfully complete this project. Multilateral policies are a habit in Europe and have enabled us to be part of the long term. In the future, we are considering three types of extension for the organization. We are going to open it up to other members, in Europe (Serbia, Slovenia, Romania, etc.), but also, as associates, most certainly to Brazil, India and Russia. On the scientific level, we also want CERN to take a greater interest in other related fields, such as the study of cosmic rays. Finally, we could also become European international coordinators of projects not located directly at CERN. Finally, I would like to point out that this organisation has a significant socio-economic role through shared innovation. So fundamental research has economic benefits? The companies we work with in cooling, magnetism or fast electronics techniques learn from us, because our engineers push these technologies to the limits. They gain years of research and development. We also promote the open innovation model, i.e. inventions that are not patented but belong to everyone, allowing them to be widely disseminated. Thus, the Web was born at CERN. Calculations on grids distributed throughout the world as well. Free software, even free electronics, are also at the heart of our ways of working. We hope that the report that the OECD will send us in September on this theme of socio-economic contributions will show that CERN plays a major role in boosting the global economy. What lesson can we learn from the neutrino affair, which was ultimately no faster than light? Ten or fifteen years ago, we would have kept such an announcement secret in order to solve the problem. Times have changed, and this is no longer possible because of the number of people involved and the communication systems. The situation has made the image of physics a little confusing, with some confusing the Higgs boson and neutrinos. I do not blame those responsible for the experiment. They were very transparent and called for ideas and counter-expertise. And in the end the story was able to conclude quickly. We must now navigate between two pitfalls: lack of transparency or uncontrolled leaks.

## ###ARTICLE\_START### ID:856

What musician hasn't dreamed of building their own instrument, creating their own compositions and playing them in public? Lutherie, composition, interpretation: three in one. All this is possible in a few strokes of the hand thanks to a synthesizer called Reactable, used by Björk since 2007. The instrument looks like a counter table, cylindrical in shape, one meter high. Not made to put glasses on but a kind of square, round and starry Lego. More than a table, it is a base with a luminous blue surface: a dive into the depths of electronic music. At the beginning, there is silence. A single point of light in the center of the table. Then, with the first cube placed, the bass starts. The gimmick starts. And as cubes and stars are added, a world of sound comes to life. A heart beats, connections are established. A galaxy is born. Günter Geiger, director of the company Reactable Systems, describes the genesis of the project: "Our goal was to create a visual, interactive and intuitive synthesizer. We started work in 2004, and the first prototype was born a year and a half later." The project was led by Catalan researcher Sergi Jorda, as part of the specialized music technology unit at Pompeu Fabra University in Barcelona. Initially a computer scientist specializing in sound engineering, Günter Geiger participated in the development of the audio synthesizer, based on the free software Pure Data. This academic work led to the creation of a company in 2009: from university to business, an evolution comparable to that of Google, for example. Today, the company has a turnover of 700,000 euros, including a variation of the Reactable concept for smartphones and digital tablets. The scientists focused their efforts on the ergonomics of the system. The Reactable is composed of a glass surface, illuminated by a projector. A camera detects the shape and movement of the objects placed on the table. It recognizes each module from a signature resembling a black and white potatooid, pierced with dots. The camera is connected to a synthesizer, which emits the sound and retransmits the audio information to the projector. This is how the music can be visualized on the table, in the form of sinusoids or other light signals. "We haven't invented anything scientifically," admits Günter Geiger. "We relied heavily on the work of Robert Moogs, who revolutionized the world of synthesizers in the 1970s. With operation from modules connected by cables." In the case of the Reactable, the modules are intelligent objects, of different types, that the musician positions on the table. The generators, cubic in shape, create the sound. They have a whole series of pre-recorded sound patterns that the user chooses. These patterns, which loop, can be modified, amplified, enriched by filters (square) or controllers (round or star-shaped). The objects interact according to their distance and the angles formed in relation to the center of the table. Thus, moving two objects can modify six parameters (three angles, three distances) which are instantly taken into account by the camera. Each object can be configured live on the table with icons and drop-down menus. The user thus has the power to modify or stop the sound created by an object with a simple swipe of the finger. The project took off again in early 2007. "We started to become known after posting a video on YouTube," says Günter Geiger. "This simple video created a real buzz, which allowed us to be spotted by Björk's technical team, always on the lookout for the latest innovations. » The meeting took place in Paris in February 2007. The researchers presented their first prototype. Tried and tested: Damian Taylor, Björk's musician, did a test. He wanted the instrument for the start of the Volta 2007 tour in April. The Catalan scientists took the bull by the horns. "For us, it was a real challenge: going from a prototype to a robust product, in less than two months! We didn't want to miss the boat. So we worked hard so that Björk could have the first truly playable Reactable, more stable and less bulky." Björk therefore fell in love with it and she shows it particularly in her new tour, Biophilia. The innovation continues, because she now connects her Reactable to a Tesla transformer: two metal balls above the stage that create an electric field to the rhythm of the music. So, when Björk sings, it makes sparks. And with the public, the current passes.

## ###ARTICLE\_START### ID:857

South Africa has some real achievements to its credit in the field of information and communication technologies (ICT), but it does not seem to make it a strategic axis of its development, and that is a shame. Let's start with the successes. PayPal was born from the merger of two companies, including X.com, created by the South African Elon Musk. It is better known today thanks to Tesla, which manufactures electric sports cars, and especially thanks to Space X, the first private company to be able to put a spacecraft into orbit and recover it (in May). Mark Shuttleworth made a fortune by selling his cryptography program to VeriSign. The money thus acquired allowed him to be the first African in space, to create a foundation that finances "innovative changes in society". He launched and directs Ubuntu, an open source and "user-friendly" operating system for computers. Mxit.com is a chat, payment and gaming platform with over 50 million users and now operating in a dozen countries, mostly in the Global South. Amazon Web Services was designed and developed in Cape Town by Chris Pinkham. And yet, after a week there, I came away with the impression that ICT is not a strategic priority. I take as an example what three of my interviewees told me. Pontsho Maruping, head of industrial sectors at the Technology Innovation Agency in Pretoria, leads government support for innovation in energy, mining, advanced manufacturing and ICT, which comes in fourth. “To be honest,” she explains, “I think we don’t give them more importance because we have enough capacity in other sectors to generate innovative approaches there.” » ICT is mostly valued for its cross-cutting contribution, but Pontsho Maruping acknowledges that "the coordination is probably not as good as it should be". Across the country, Walter Baets heads the Graduate School of Business at the University of Cape Town. He finds ICT "a cheap development tool with much lower entry costs than other industries". But he acknowledges that "there is not enough thinking about the use of information technology in social innovation" towards which he is trying to steer his students. In the incubator he is setting up, he wants a third of the space to be reserved for technology-focused ones - so it is not a strategic place. Andrea Bohmert heads the Silicon Cape Initiative, a start-up community in Cape Town, which naturally puts her on the side of those who regret that more is not being done. She attributes much of this lukewarm response to the fact that it is a sector that is "90% white and 90% male". For the government, it is therefore not a priority. She also notes that ICTs are rather appreciated for their role in facilitating ("enabling"), while "the priority for the government is what immediately changes people's lives. I regret it but I understand "the big picture"". She is not alone. But there is something more serious: this could contribute to reducing the country's role in Africa. The Economist recently questioned its ability to stay ahead. Nigeria, for example, relies on oil and a population three times larger. Much smaller, Kenya, for its part, clearly seems to be betting on information technology as the axis of its development. An element that will have to be taken into account more and more often in the geopolitical analysis of regions and the planet.

## ###ARTICLE\_START### ID:858

Facebook has come up with Facebook credits, which can be purchased on the site and become a virtual currency to pay securely for games or applications, even from a mobile. For a few years now, a "free" software (it does not belong to any company) has been issuing Bitcoins, which are exchanged on sites (bitcoin-central.net, for example) at around $6 each. "Some 9 million bitcoins have already been created," notes Gonzague Grandval, from the company Paymium. Few e-retailers accept this virtual currency, but Internet users sometimes use it among themselves to reimburse each other for a restaurant, a taxi, etc. Since last April, Yesibank, a French company, has come up with another currency: Yes. You earn yes by visiting certain sites, by collecting friends on Facebook and you use them to do your shopping with discounts at Virgin, Pixmania, Brandalley, etc. Example: 1,000 yes + 2 euros = 1 film to download, i.e. 60% off. AB

## ###ARTICLE\_START### ID:859

Will innovation save France, Europe and even the planet? The idea is firmly anchored in political and business discourse. The problem is that private research - which, according to the Organization for Economic Cooperation and Development, represents 51% of French spending in this area - is in crisis. "Since the 1980s, corporate research and development has been less and less efficient: projects cost more, the failure rate is increasing, explains Blanche Segrestin, a researcher at the Centre de gestion scientifique des Mines-ParisTech. In pharmaceuticals, in the automobile industry... everything is becoming more technical, more transdisciplinary, more regulated." We understand the craze, in recent years, for open innovation - in French, open innovation, collaborative or partnership research. Getting laboratories out of their ivory tower is one of the solutions put forward to remedy the failure of traditional R&D. As if the truth were elsewhere. Henry Chesbrough, a professor at the University of Berkeley in California, was spot on. By combining two fashionable words in 2003, "open" and "innovation", he could only give birth to a concept destined for success. "Bankable", as they say in this corner of the Pacific. Nine years after his "invention", this idea has been around the world several times. Surprising for an umbrella concept, which brings together very different, even opposing practices: partnerships with research laboratories, with companies - small or large, competitors or not -, the valorization of a portfolio of unexploited patents, open source and open data, equity investments in innovative start-ups, changing the culture in companies... To write her thesis on innovations for services for vulnerable people, Marine Agogué, a doctoral student at the Ecole des Mines, combed through all the literature on the subject. "To find anything and everything there. In fact, open innovation for a company is the development of contacts between its research and development department and the outside world," she sums up. Promoting what is lying around in the cupboards, and finding innovative ideas outside its own laboratories. In the eyes of business leaders, the concept is attractive. Open innovation has spread like wildfire. In 2011, 41% of large French companies said they were implementing collaborative tools, and 22% were already in the next phase, that of optimizing practices, according to a study conducted by the company Bluenove among 144 representatives of more than 60 French groups. The economic crisis is not unrelated to this sometimes brutal awareness. But it is not the only factor. "In the competitiveness clusters created in 2005, the first concrete results appeared, the players got to know each other. The other parameter is the impact of the research tax credit, which encourages companies to collaborate with public laboratories," explains Fabrice Derepas, program and strategy director of CEA LIST, a branch of the Atomic Energy Commission specializing in information systems. In their innovation support systems, public authorities all seek to get several players to work together. At Seb, we have been working hand in hand with public laboratories for over ten years. More recently, a partnership was established with L'Oréal for the design of a hair straightener. And, in 2011, the inventor of the pressure cooker launched an investment fund, Alliance, to take small stakes in start-ups present in the strategic sectors of household appliances. "We want to capture what comes from outside, not stay in our bubble. In any case, unless you have crazy research staff, it is not possible to know everything internally, to be fast while remaining innovative," explains Jean-Christophe Simon, Director General of Innovation. The latter is even setting up a website allowing him to receive proposals from individuals... "Every year, we receive around a hundred proposals of this type. The success rate is quite low, but you have to be able to answer yes or no, and to see what legal framework is possible if necessary. Recently, we integrated an invention from an individual into a multifunction machine," emphasizes Jean-Christophe Simon. A balance to be found That is what open innovation is, a mishmash of different practices. Each company adapts it in its own way, according to its culture and sector. For several years, Bombardier Transport has been working on a new electric tramway system that works by induction, called Primove. A demonstration took place in Germany at the end of May in front of a group of journalists - the federal government having invested six million euros in the project. Jérémie Desjardins is in charge of the operations: "For the technical side, we asked for help from a major induction specialist, who signed a contract with us to develop the technology," he explains. A team of forty in-house engineers took over. Gradually, they received a flood of phone calls from colleagues in other sectors - such as buses, trucks or automobiles - who were very interested in the technique... Jérémie Desjardins will remain vague on the subject, but he "often talks with major players" to set up partnerships. Always assisted by a specialist in intellectual property issues, a member of his team. Bombardier has already filed over a hundred patents on the subject... "One of the dangers is depending on partners for part of the know-how... You have to take the time to think about what you want to keep and share before committing," says Thierry Weil, professor at Mines-ParisTech. There is a balance to be found between the number, depth and duration of partnerships. "Today, open innovation players must be held accountable, it's the end of illusions, we're not laughing anymore," warns Pierre Bitard, director of prospective and innovation at the National Association for Research and Technology, the umbrella organization for Cifre contracts (Industrial Convention for Training through Research), which allow companies to finance and host a doctoral student working on a topic that interests them. In reality, open innovation as practiced by large groups has little to do with the free nature claimed by open source in software, for example. This is not the end of patents, but rather the advent of "patents 2.0", shared between several partners who divide up the expected profits in advance. "Unlike open source and open bar, open innovation is not free. We remain in a system of intellectual property. The large groups that practice it even say that they are better protected now", underlines Delphine Manceau. The director of the Institute for Innovation and Competitiveness at ESCP Europe notes another preconceived idea: "No, using open innovation does not reduce R&D expenses. On the other hand, it does allow more innovative products to be developed more quickly." Rethinking your internal organization is expensive and often requires awareness-raising operations, employee training or even the implementation of internal collaborative platforms - digital idea boxes. All to change habits: some scientists do not spontaneously want to promote what comes from outside, whether it is funding or a decisive idea. However, this is not necessarily new, says Christophe Lécuyer, a researcher at the University of California and author of a thesis on the history of Silicon Valley. "This was the system that prevailed in the West between the end of the 19th century and the 1930s." At the time, companies bought patents from inventors like Edison or Bell... Before large groups set up their own laboratories after the war. As if open innovation was ultimately a return to good old recipes. That too is in the air. p Julien Dupont-Calbo and Catherine Pétillon

## ###ARTICLE\_START### ID:860

Opensource A software is said to be open source if its code is public and reusable for free. The Linux operating system or the Open Office office suite, for example. Crowdsourcing The fact that companies use the Internet to call on everyone - experts or not - to solve problems or find new things. Creative Commons To encourage innovation, the Creative Commons association launched licenses in 2002 that allow authors to determine the rights attached to their work. Six licenses are possible, from the strictest use to the freest use. Wiki This is a website whose pages can be modified by any visitor to the site. The emblematic example is the Wikipedia encyclopedia.

## ###ARTICLE\_START### ID:861

They first met in 2005, in the Senate: sitting on the public benches, they attended, pencil and notepad in hand, the debate on a text devoted to digital technology. Four years later, they met again during the parliamentary debates on Hadopi. "We were free software activists, we were passionate, as citizens, about these issues, but we were a little disappointed by the attitude of certain deputies who were content to follow the voting instructions given by the group presidents", says Tangui Morlier, director of IT projects in Paris and co-founder, with Benjamin Ooghe-Tabanou, of the collective Regards citoyens. These observers disappointed by political life then decided to launch an activist site (Deputesgodillots.info) which follows parliamentary news while mocking Jean-François Copé's statements on the "hyper-Parliament". This first experience has a schoolboy feel, but it allows them to discover that the National Assembly website brings together a lot of fascinating information on the work of deputies. In the summer of 2009, joined by two other Internet users, they decide to open a website, this time a serious one, on parliamentary activity. "We dreamed of a toolbox that would allow all citizens to understand and analyze the life of Parliament," explains Benjamin Ooghe-Tabanou, a research engineer in Paris. We wanted to highlight the data provided by the National Assembly and the Senate." Statistics At the start of the 2009 school year, the site is ready: thanks to small computer robots that explore the National Assembly website several times a day, Regards citoyens displays data on the work of the committees or interventions in public sessions. Three years later, this observatory has become a reference: it offers statistics on the activity of political groups in terms of amendments or written questions, provides a general summary of the work of the 577 deputies and 348 senators and provides access to all parliamentary documents. The question of absenteeism is obviously one of the keys to reading the site. "The election of parliamentarians is not a carte blanche that allows them to do what they want for five years, underlines Tangui Morlier. In a democracy, it is normal and useful to follow what our representatives do." Regards citoyens therefore measures the activity of each parliamentarian - number of weeks of activity over the year, interventions in session, presence in committee, tabling of amendments, drafting of reports, written questions, oral questions. If the deputy is among the 150 most active parliamentarians or the 150 most absent, the fact is reported, but Regards citoyens refuses to establish rankings. "That would be a bit of a hasty simplification," continues Mr. Morlier. Regards citoyens, which mainly brings together computer scientists whose average age is barely over 30, denies any anti-parliamentarianism. "On the contrary, our site promotes parliamentary work," believes Benjamin Ooghe-Tabanou. "We have also created a cloud of keywords for each MP that allows Internet users to find out the substantive subjects on which this MP speaks most often and to consult the text of their speeches or proposals: this encourages citizens to take an interest in the content of legislative work. We also put online the productions of each elected official, whether they are bills, reports or amendments. Some MPs, who are very active but little-known, are also happy that we offer them a certain visibility."

## ###ARTICLE\_START### ID:862

The Charest government is depriving itself of several hundred million dollars by dealing with Microsoft to renew 500,000 computer workstations in the education sector instead of using open source software, maintains the Parti Québécois. Citing a letter signed by three computer experts, Taillon MNA Marie Malavoy criticized the Charest government for giving up savings of $450 million. However, Bill 133 requires the government to consider open source software in the same way as proprietary software, she said. Lobbying? "Is it because the government is giving in to pressure from Martin Daraîche, a former aide to the Prime Minister and current lobbyist for Microsoft Canada?" asked the PQ MNA. Martin Daraîche is a lawyer and member of the National Cabinet. He worked in the offices of former Minister Nathalie Normandeau and Premier Jean Charest. The three signatories to the letter are Messrs. Cyrille Béraud, Benoît des Ligneris and Daniel Pascot, all promoters of free software. The transition to Windows 7 (from Microsoft) will cost 904 million, they say. "Using free software would save 450 million," write the signatories of the letter submitted to the Minister of Education, Michelle Courchesne. "More reliable" Free software is free and used in several countries, including France, England, Germany, China and Brazil, specified Marie Malavoy. "They are more reliable in the face of hackers (...) There is a source of savings there that we are not going to look for," argues the MP. The Minister of Education, Michelle Courchesne, explained that the government's choices in terms of IT are made after a rigorous analysis. "All departments and agencies must, when they have to renew or develop a computer system, do an analysis of the software (...) in terms of quality, after-sales service and price," said Ms. Courchesne. On the subject of lobbying, government leader Jean-Marc Fournier recalled that the former PQ director general, Raymond Bréard, had collected the sum of $200,000 in 2002, as a lobbyist for the firm Oxygène 9, from government subsidies paid to the cultural industry. Furthermore, Cyrille Béraud is a candidate for the Parti Québécois nomination in Vimont.

## ###ARTICLE\_START### ID:863

The sky fell on Minister Michelle Courchesne's head yesterday in the House. Allegations of political favouritism and irregularities rained down on four files concerning her. The opposition parties gave the Treasury Board Chair and Minister of Education a hard time. Initially, the Parti Québécois (PQ) suspected that the dice were loaded in favour of a company that had benefited greatly from the Sports Facilities Support Program. The management of this program, worth over $360 million between 2006 and 2010, was severely criticized by the Auditor General last week. The calls for tenders required a type of product that only the company FieldTurf, whose distributors are two Liberal donors from Laval, could provide, noted the PQ opposition. "We're talking about higher costs than for NFL stadiums," protested Sylvain Pagé, MNA for Labelle. "How does the minister explain having authorized subsidies with such a discrepancy?" The projects had to meet the standards of the sports federations, Minister Courchesne defended herself, and the calls for tenders were conducted by the municipalities, school boards or organizations that benefited from them. The minister also noted that civil servants are now working to recover funds that were misused, such as for the construction of a restaurant or rental offices, for example. In a previous report, the Auditor General had also criticized the management of the granting of daycare permits by the department that Ms. Courchesne occupied. Here too, the intervention of the office in the choice of projects was at the forefront. Yesterday, PQ MNA Nicolas Girard questioned Ms. Courchesne on the granting of a 70-space permit to a family of Liberal donors in her riding, the equivalent of "an annual subsidy of $700,000 for life to her friends." "The kiss of Judas" The Coalition avenir Québec was not going to be left behind by Minister Courchesne. CAQ member Éric Caire has revived the issue of religious schools. In recent years, some of these establishments have seen their subsidies increase, despite unfavourable opinions from the Advisory Commission on Private Education, he revealed. "The minister, once again, is using her discretionary power to maintain subsidies to schools that do not comply with the educational regime," attacked the MNA for La Peltrie. Minister Courchesne assures that schools are the target of prosecution by the ministry because of their non-compliance. But she was not able to assure that these are the ones targeted by MNA Caire. The CAQ member does not believe that the confidence reiterated by Premier Jean Charest in Ms. Courchesne bodes well for the latter. "If I were Ms. Courchesne, I would start to get scared," he said. "When the Prime Minister gives you the Judas kiss, he keeps his word." Finally, the PQ MNA for Taillon, Marie Malavoy, drew a parallel between the savings the government could make by adopting free software and the tuition fee crisis. Is Quebec's favourable bias towards Microsoft products "because the government is giving in to pressure from Martin Daraîche, a former collaborator of the Prime Minister and current lobbyist for Microsoft Canada?" asked Ms. Malavoy. Departments and agencies now have an obligation to consider free software in the development of their computer systems, retorted Ms. Courchesne.

## ###ARTICLE\_START### ID:864

Michelle Courchesne, Minister of Education and President of the Treasury Board, At the end of March, as the student movement against the tuition fee increase was taking off, your government approved a vast plan to migrate all computer workstations in the government and health and education organizations to software from the multinational Microsoft. Your services estimated the cost of the migration at $1.4 billion. It involves 738,000 workstations, including nearly 500,000 workstations for education. The cost of this project for the education sector alone is estimated at $904 million. The additional revenues anticipated by the tuition fee increase for the 2012-2017 period total $964 million. So, in fact, the increase in tuition fees for the period 2012-2017 will essentially cover expenses - recurring and without added value - in migration costs and software licenses, which are imposed on you by a foreign multinational. However, for the most part, the software necessary for workstations, collaboration and more generally for the education of students from primary to university is available free of charge on the Internet: it is free software. We, heads of companies specializing in free software, professionals and experts in new information and communication technologies, affirm that the use of free software in the education sector, instead of "proprietary" software, would allow savings of more than $450 million and would cover half of the increase in tuition fees. We do not only want to affirm that the use of free software is perfectly adapted to the context of education, but also that it is desirable since the values of sharing, community, ethics and transparency specific to free software are also those that our education system wishes to convey. Free software will free Quebec from the control that multinationals exercise over our information systems, will strengthen the expertise and export capacity of Quebec companies, and will contribute to building the economy of the future: the knowledge economy. The future of our culture, the arts, knowledge, the vitality of our language will be determined by our ability to collectively appropriate new information and communications technologies. This starts with education. Freedom, work, collaboration, sharing and transparency are the values at the heart of the development of free software in the world. These values meet those of young people today. Without claiming that this proposal could resolve the current crisis that Quebec is going through, we remain convinced that a proposal to reduce the increase in tuition fees by 50% could contribute to its resolution. Benoît des Ligneris, Ph. D., President APELL, Professional Association of Free Software Companies Cyrille Béraud, President FQCIL, Quebec Federation of Free Software Communities and Industries Daniel Pascot, President, Facil, for the Collective Appropriation of Free Software

## ###ARTICLE\_START### ID:865

The organizers immediately set the tone: "We are betting on the survival of journalism." On Wednesday morning at Paris City Hall, Xavier Vidal-Foch, president of the World Network of Editors-in-Chief, opened the News World Summit, three days of conferences on the future of the press (Libération, May 30). Train. Some rather gloomy observations, first: "Advertising revenues are, as everyone knows, in sharp decline in traditional media, especially for newspapers," described Martha Stone, who heads the World Newsmedia Network, a non-profit association. The dizzying fall in the main source of funding for newspapers is not the only constraint: we must also accommodate an aggressive digital transformation. "The consumption of information is changing day by day," notes Jim Roberts of the New York Times. "We must not miss the train: we must adapt and experiment constantly." Another alarm: "With some exceptions, traditional media are failing to attract, retain and monetize their digital audience," notes Jim Chisholm, a media specialist. However, we are beginning to see what tomorrow will bring. According to a McKinsey study revealed at the summit, 80% of media will be consumed on digital media in 2020, compared to 50% in 2007. "Digital is the only way forward: younger generations will not return to paper," says Eric Hazan, associate director at the French office of McKinsey & Company. And with record penetration rates in developed countries (reaching 90% in the United States in 2015), smartphones have become "the leading digital reading media." For the media, "having a mobile strategy is now mandatory." A godsend. The sacrosanct tablet is not far behind: according to the study, we read 25% longer on tablets than on smartphones - a godsend for advertisers. To the point that the president of Metro International, Per Mikael Jensen, believes that within five years, as soon as cheap models exist, his group will "give away free tablets" to its readers. So is this summit group therapy for a sector in crisis? More of an energetic mix of ideas from the world's top researchers. Data journalism, live blogging or curation: a report on the most heard keywords under the crystal chandeliers of Paris City Hall. Data This is a new form of storytelling: data journalism offers the formatting of journalistic work, which is based on numerical data, thanks to Web tools. Faced with the explosion of open data - free access to tons of public data - we need data journalists. Because few individuals have the time to put up with millions of poorly indexed PDF files. This is first of all the role of the data journalist: to swallow this data and spit it out in an intelligible way. Data journalism can provide a service to the reader (the BBC budget calculator). Or go much further: for example, the Russian site RIA Novosti has developed an application to count protesters. The tool, developed based on mathematical models, has made it possible to prove that the official police counts were wrong. A sine qua non condition for data journalism: newsrooms must be restructured and room made for programmers and designers. "It offers immense possibilities for storytelling," rejoices John Daniszewski of the Associated Press. "It's what allows us to differentiate ourselves from others, to have added value." Data journalism can become a powerful traffic generator. Above all, it can help rebuild the reader's trust in its media. Users Usage changes, and so does vocabulary. Today, we say "user" rather than reader, and "content" rather than article. But how do you attract these reader-users? How do you retain them to please advertisers? "You have to go and find your audience, invite them to your meetings, interact with them," suggests Benoît Raphaël (Le Lab, Le Plus...), particularly via social networks. You also have to know your Internet users well. Hire web analysts, for example, so as not to be interested only in the quantitative aspects of user statistics. And avoid "targeting", i.e. adapting your editorial line according to the articles best indexed on search engines. "Certainly, you increase your traffic in the short term," acknowledges Matthieu Llorens, of AT Internet, a company that studies web audiences. "But in the long term, your readers are disappointed and your media loses credibility." The Echos website has understood this well: every day, the team of the economic daily receives a report by email, with the list of the most read articles, the most shared, the requests of Internet users... "We use this data as a site management tool, but also to help the team take ownership of it", explains François Bourboulon, the editor-in-chief of LesEchos.fr. Guardian A synthesis of all the good ideas, a generator of initiatives, The Guardian presents itself as a model to follow. For a year, the British daily, in debt and in the process of restructuring, has chosen "Digital First": digital is now the priority. The paper daily, for its part, is becoming a cold, analytical newspaper. At the head of the newspaper for seventeen years, Alan Rusbridger, a promoter of "open journalism", has set in motion a real cultural revolution in the editorial office: "No journalist works only on paper anymore", says Joanna Geary, editor-in-chief in charge of digital developments. At the forefront of data journalism (see their work on last summer's riots), a team at the Guardian is currently working on the Miso project, an open source platform that will offer the media simplified data formatting tools. The Guardian also promotes participatory journalism, particularly through its "Newslist", an online agenda that allows Internet users to access the list of subjects that journalists are working on, with the possibility of interacting with them. "You have to constantly have a desire to test and learn," advises Tanya Cordrey, also in charge of digital. "You don't necessarily need to set up big, expensive projects. Sometimes, small changes and a spirit of innovation are enough." Advertisers Overall, advertising revenue from digital is still much lower than that from paper. But local advertising and mobile advertising should be the two mainstays of tomorrow. For the moment, half of the local advertising market goes to the big players on the Web (Google, Facebook). "Only a quarter of local advertising goes to newspapers," laments Martha Stone, executive director of the World Newsmedia Network, an association that is considering the future of the sector. User statistics and geolocation on mobile devices should succeed in attracting advertisers' interest. "The more you know about your users, the more you can ask advertisers to pay," assures Per Mikael Jensen (Metro International). In the meantime, you have to be creative. The CNN site, for example, does not hesitate to set up advertising campaigns linked to editorial content. For example, a banner and a promotional video for a watch that works according to a mechanism invented by Leonardo da Vinci, next to an article... on a Vinci exhibition. "It allows us to move forward without compromising ourselves," affirms Peter Bale, vice-president of digital editions for the channel. For the reader, the important thing is transparency," provided that you clearly indicate who paid for what. Live Widely encouraged by the many major news stories of 2011 - Fukushima, Arab Spring, etc. - the use of live blogging has exploded in newsrooms around the world. In France, many news sites, including Libération, live blogged the debates and voting days of the recent presidential election. This form of storytelling - short texts enriched by links, videos, photos, analyses or comments from Internet users posted in real time - has the major advantage of drastically increasing the audience of your site. Provided that several criteria are met. For the reader to be caught up in the live blogging thread, the event must be a major event. Journalists' posts must adopt "an accessible and direct style, on a single, clearly identified subject," advises Mary Hockaday, head of the BBC Newsroom. It is also necessary to combine the immediacy of live blogging with the added value of writing: graphics or testimonies from correspondents in the field, for example. And Mary Hockaday is sure: "Writing a single good sentence requires as much know-how as writing a long story." The challenge is to find a way to monetize this new type of content and to capitalize on these increases in traffic. Local The cocktail of social, local and mobile information (the famous acronym "SoLoMo" of blogger Loïc Le Meur) is not yet completely conclusive, because of the discretion of hyperlocal advertisers on the Web (read above). A notable success is that of the Examiner.com sites, which emerged from the San Francisco Examiner after the paper was discontinued, and have found their economic model. The sites involve thousands of amateur journalists, who write about their city, their neighborhood, and who are paid by the number of page views. According to Leonard Brody, president of Clarity Digital Group, the parent company of the Examiner sites, "We have created a content production machine. It is more powerful than a traditional social network!" Another initiative of this kind is that of the Hamburger Abendblatt in Germany, a subsidiary of the Axel Springer group. The "Mein Quartier" project began with freelance reporters, chosen for their good integration into a Hamburg neighborhood. With the aim of "intensifying local coverage," explains Felix Bellinger, director of applications at Axel Springer. "Mein Quartier," accessible via an iPhone application, has since been extended to the entire editorial team. "The project quickly had a lot of success, in terms of traffic but also in terms of revenue. We managed to target a new audience, and to attract new advertisers." Curation Originally, curation was the work of the curator, the curator of a museum. But the word has recently left the museum to settle, and permanently, on the Internet. With a very specific meaning: the enhancement of content with Web tools - links, photos, videos, sounds... A sort of digital, creative super-edition, which allows articles to be better readable, and better visible, particularly thanks to sharing tools. "Being a content producer is not enough: you have to guide the content," insisted Krishna Bharat, the creator of Google News. Curation must be a fundamental step. Curation "improves the understanding of the article: we can, for example, integrate all its sources and allow the reader to delve much deeper into the article," says Jim Roberts, deputy editor-in-chief at the New York Times. Curation allows, particularly on tablets, a much more complete reading experience than the traditional article. To be thrown into the Internet's oblivion, therefore, these ten-foot-long articles written in 6-point font, without photos, without videos, without links...

## ###ARTICLE\_START### ID:866

A synthesis of all good ideas, a generator of initiatives, The Guardian presents itself as a model to follow. For a year now, the British daily, in debt and in the midst of restructuring, has opted for "Digital First": digital is now the priority. The paper daily, on the other hand, is becoming a cold, analytical newspaper. At the head of the newspaper for seventeen years, Alan Rusbridger, a promoter of "open journalism", has set in motion a real cultural revolution in the editorial office: "No journalist works only on paper anymore", says Joanna Geary, editor-in-chief in charge of digital developments. At the forefront of data journalism (see their work on last summer's riots), a team at the Guardian is currently working on the Miso project, an open source platform that will offer the media simplified data formatting tools. The Guardian also promotes participatory journalism, notably through its "Newslist", an online agenda that allows Internet users to access the list of stories that journalists are working on, with the possibility of interacting with them. "You have to constantly have a desire to test, to learn," advises Tanya Cordrey, also in charge of digital. "You don't necessarily need to set up big expensive projects. Sometimes, small modifications and a spirit of innovation are enough."

## ###ARTICLE\_START### ID:867

He says he made his decision "on a whim, a roll of the dice": "It sounded like a challenge, like a battle against oneself and with the institutions," he notes on his blog (Davduf.net). On May 10, David Dufresne joined the French Pirate Party (PP), "thirty-one years to the day after an old worker had taken me in his arms at the Bastille. He was crying, I was 13 years old." Proposing to fly the Pirate Party banner during the legislative elections on June 10, David Dufresne began by introducing himself in the email he sent to the PP: "French by birth, I have been living in Montreal for over a year. I have a long history as an Internet user, which began in 1993, with one of the very first online webzines (La Rafale). I am notably at the origin of the Independent Web Manifesto, with my friends from Mini Rézo, creators among others of the free software Spip. I am a documentary filmmaker and the Pirate Party adventure tempts me (...). I have just published a book on the so-called "Tarnac" affair (Tarnac, general store, at Calmann-Lévy). In other words, like the PP, the Internet and justice are two of my major concerns." A young shoot of the Swedish PiratPartiet, born in 2006, the French PP is launching its first real electoral test by presenting candidates for the legislative elections: so that the digital revolution and new uses rhyme with transparency, direct democracy, free circulation of knowledge and protection of individual freedoms. "Politics, certainly. But pirated, hacked, chopped up," says David Dufresne, substitute for Pierre Mounier, professor of classical literature campaigning for digital humanities and PP candidate in the 20th arrondissement of Paris. TRADITIONAL JOURNALISM IS OVER FOR HIM Reading David Dufresne's latest and superb opus, Tarnac, magasin général ("Le Monde des livres" of March 2), one understood that traditional journalism, as he had practiced it for a long time (at Libération, I-Télé then Mediapart), was over for him. "This job that I had loved so much, this Tintin-style journalism, as it had become, I no longer believed in it"; no to "urgency, haste, efficiency, following", he wrote at the end of three years of investigation into the political and media construction of the Tarnac "affair" (the sabotage of SNCF lines, then the indictment of a group of young far-leftists for "criminal association with a view to preparing a terrorist act"). After this book, whose form was strongly inspired by his web documentary Prison Valley, co-directed in 2010 with Philippe Brault, "going wild was the only reasonable solution," he noted. Now living in Quebec, he has immersed himself in "a new web-narration" of long duration co-produced by Arte and the National Film Board of Canada - after having been the project manager, with Sébastien Brothier, of a huge Web file around the documentary series "Manipulations, une histoire française" for France 5. "He's a cat with nine lives!", comments his old buddy Silvain Gire, now at the head of Arteradio.com. Someone who burns his ships behind him so as never to go back. He's a geek, an archivist, an encyclopedist, borderline obsessive (on punk rock, the situationists, rap, the Internet, etc.), but also capable of letting go of everything. » ANYTHING BUT A ROCK'N'ROLL STYLE Punk, jokes Silvain Gire, "he was more of a 'straight edge' type" (no tobacco, no alcohol, no drugs); rocker, "although he had been in this environment for a long time, he has anything but a rock'n'roll lifestyle"; in short, "funny and warm, but the opposite of cool!" Pushing to the point of psychological analysis, Silvain Gire concludes: "A real tortured person, very demanding, which is both a quality and a fault. Already, when he was changing, at 14, live on the microphone of a free radio station, he criticized the critics of Rock & Folk; and very seriously! He has a great deal of anxiety running after him, the demon of letting go that he runs away from at all costs. He always has to be on the move! » In fact, David Dufresne has just invested in a new "temporary autonomy zone" (a concept from the philosopher Hakim Bey): the web documentary. "We are living," he explains, "a period of one, two, three or ten years where we can reinvent ourselves every day, since this territory is still fallow." And if he misses his little Harley in Montreal, he finds a culture "turned towards the future" that suits him, he assures us. "It's the most complete adventure here, for me, my wife and my three children, but I've always been uprooted. When I was little, I spent my life moving. Oddly enough, the Internet is really my home."

## ###ARTICLE\_START### ID:868

To take your mind off things after a very dark start - the death of the traditional article, whose obituary was delivered by two American journalists with great strokes of "curation" and "user experience" - the second day of the News World Summit 2012 of the Global Editors Network (GEN) in Paris (Libération of May 30), presented a birth announcement: that of live-blogging, which is booming in newsrooms. Largely encouraged by the many major news stories of 2011 (Fukushima, Arab Spring, etc.), the use of live-blogging, composed of short texts enriched by links, videos, photos, analyses or comments from Internet users, exploded last year. In France, all the newsrooms, including that of Libération, went live-blogging to comment on the debates and election nights of the presidential election. But for this form of online and live storytelling to work, a certain method must be followed. "It is better to live-blog, with an accessible and direct style, on a single, well-identified subject," says Mary Hockaday, head of the BBC Newsroom. For several months, the BBC has been accompanying its online video broadcast with a live-blogging thread. According to Mary Hockaday, if the live broadcast covers several themes, then the audience decreases and "only those crazy about hot news remain". It is also necessary to combine technology, immediacy "with [its] added value": graphics, testimonies and analyses from correspondents in the field are used to enrich the live broadcasts. Physical proof of the interest in this tool, the journalists in charge of social networks and live broadcasts will be, literally, at the center of the future BBC newsroom which will soon be moving. And Mary Hockaday is sure of it: "Writing a single good sentence requires as much know-how as writing a long story." Because the lifespan of a well-done live-blogging can go beyond the live broadcast time. For example, the Figaro.fr feed on the TV debate between the two rounds was consulted nearly forty-eight hours after it was produced, assures the site's editor-in-chief, Ingrid Vergara. "Graphics, links, analyses... This amount of added value paid off for several days." On condition that it is used sparingly: live blogging, to be a "very powerful editorial" tool, requires an important event, a major news story. "We are not here to fill in the gaps." Vice-president of one of the two most widely used live blogging tools, ScribbleLive (the other being Coverit Live), Kate Fairhurst points out that we are only in the early stages. Always with this question: "How to monetize content? How to generate advertising revenue?" ScribbleLive is closely interested in content syndication and advertising sponsorships. Monetization is precisely at the heart of a new tool presented at the conference: the Live Desk, developed by a laboratory of journalists (Le Monde, The Guardian, BBC...), and sponsored by Google, on which it is possible to integrate advertising banners. It also allows interactions with Google, with the Flickr photo hosting and sharing platform, to gather content from other editorial offices, and to customize its feed. This free, open-source tool, currently in alpha version, should be usable by all editorial offices from September.

## ###ARTICLE\_START### ID:869

Paris, one evening in May. The Pirate Party, which is running legislative candidates in almost all of the capital's constituencies, has managed to fill the Lavoir moderne parisien (LMP), an associative performance hall in the Goutte-d'Or district. The organizers are smiling: at the previous meeting, there were very few of them. This time, the supporters wanted to meet in real life, and not just on the Internet. The Pirates are at home here, because Hervé Breuil, founder of the LMP, is their candidate for the 17th constituency. On the walls hangs the proud Pirates' banner - bright purple, with a black P in the center in the shape of a ship's sail, evoking the pirates of yesteryear... Upstairs, around sixty activists - mostly men, young, educated and white - are divided into "campaign workshops": media, social networks, feature articles, leaflets and posters, events. Then they get to work, in a joyful and studious atmosphere. Created in 2006 by a group of Swedes close to "Pirate Bay", a large illegal music and film download site, the Pirate Party has spread throughout Europe. The Pirates are the spiritual heirs of the libertarian hackers of the 20th century, who dreamed of establishing the complete free circulation of culture and knowledge on the Internet. Unlike the hackers, however, the European Pirates have chosen the path of legal political action, within the framework of democratic institutions. Their success is spectacular in Germany, where, since the fall of 2011, they have won between 7% and 9% of the votes in four regional elections, and have 45 seats in the assemblies of the Länder. Boosted by the German example, the French Pirates have decided in turn to try their hand at electoral adventure. In keeping with their legalistic approach, they adopted a program of reforms that could be implemented without disrupting society: legalization of non-commercial sharing of cultural products, the right to anonymity for Internet users, limitation of the duration of copyright, prohibition of abusive patents, opening of all databases created with public money, transparency of political institutions, ensured by the Internet... At the beginning of the year, with barely 200 members, they threw themselves into battle - without experience, without allies, without premises, and without money: the party lived on membership fees - 10 euros per year on average - and on the income from its online store, which sold caps, T-shirts and flags. Many candidates would have to run a "zero euro" campaign, and would ask voters to print their own ballot papers, which could be downloaded from the Internet. However, thanks to its blogs, collaborative sites, Web-TV, teleconferences, and also Facebook and Twitter, the party managed to urgently recruit a hundred candidates, and as many substitutes, spread throughout France - including 42 in the Paris region. At the same time, the number of members increased by nearly fifty per week. Now, it was necessary to go and meet the voters. The party would have the right to broadcast campaign spots on television, but this was not enough. For Paris, through discussions on the Internet and "in real life", activists organized mini-demonstrations, picnics in squares, a fair on the Pont des Arts... Despite its limited resources, the party worked, because it had a fairly homogeneous hard core: a group of young computer scientists with a wise and orderly appearance, integrated into the business world, who projected an image of seriousness and competence. Maxime Rouquet, 26, an engineer specializing in video games and co-president of the party, is one of the few to have electoral experience: in 2009, he ran in Yvelines under the Pirate label during a by-election, and obtained 2% of the vote. This year, he is a candidate in the same constituency. Like many of his comrades, Maxime Rouquet got involved in politics in reaction to the avalanche of these laws with barbaric names, Dadvsi, Loppsi, Hadopi, aimed at repressing Internet downloading, or strengthening police surveillance of the network: "When I discovered that in France you risk three years in prison and a fine of 300,000 euros because you shared a cultural work with a friend, I understood that society was on the wrong track. » The same goes for Stéphanie Geisler, 26, a software designer for an insurance company, who coordinates the Ile-de-France section and is running in the 7th constituency. Her goal is not to take power, she simply dreams of seeing one or two Pirates sit in the Assembly, to help other deputies understand the challenges of digital technology: "I followed parliamentary debates on this subject and I discovered that there is a big skills deficit." However, the Pirates are not blind technophiles: "We are against video surveillance," recalls Maxime Rouquet, "against the recording of citizens, against automated financial transactions that aggravate stock market crises, and especially against electronic voting machines: voting by computer will always be opaque, and fraud always possible." The Pirates are trying to alert public opinion to the imperfections of the new Internet voting system set up for French people abroad. Of course, the leadership's legalism is not unanimous, and the party already has a more rebellious minority. Joseph Paris, 27, a former member of the Revolutionary Communist League (LCR), filmmaker and member of Kassandre, a collective of directors "who have chosen to freely share one or more of their films using free licenses," would like the Pirates to also be able to assume their name: "We must pirate, or at least allow ourselves to run afoul of the law, when it is legitimate." Joseph Paris believes that a good sabotage would perhaps be better than a too-sober campaign: "If our candidacies were invalidated, it would trigger a media buzz, and a movement of solidarity." Maxime Rouquet responds simply: "If we are banned, we will have lost everything." The second part of the Pirates' doctrine is more timeless: the establishment of a regime of direct democracy, based on citizen participation at all levels - an old utopia, finally made possible by the Internet. To set an example, the party has set up a hybrid governance system. At the top, we remain in the classic: the direction is ensured by an administrative and political council, seconded by a national council, which coordinates the action of the local sections. On the other hand, the content of the program is entirely established by the base: each proposal of a member is debated on the Internet - sometimes excessively -, then voted on in general assembly. The French Pirates have adopted the Anglo-Saxon concept of "liquid democracy": each activist gets involved as they wish, at their own pace, in the areas of their choice. Liquid Democracy is also the name of a free software created by the German Pirates, which the French will adapt: it allows grassroots activists to submit a project on the Internet, to debate and amend it in real time, then to vote on it immediately. The theme of direct democracy has attracted another type of activist, less digital, and less young. Thomas Watanabe-Vermorel, 32, a schoolteacher in the 19th arrondissement, is the Pirate candidate for the 6th constituency. He has set up his office at the Les Pirates bar on Rue Oberkampf: "The boss is cool, he immediately agreed to welcome me." In front of the terrace, Thomas Watanabe-Vermorel has parked his ship - a plywood cart, whose shape and mast vaguely evoke a pirate ship, where he piles up his campaign material. He admits that the official program, which is very focused on digital technology, does not "excite" him. On the other hand, on the reform of the political system, he is inexhaustible: "We must break the monopoly of these politicians who are MPs for decades in a row. Banning the accumulation of mandates is not enough, we must limit their number over time." He also dreams of introducing a new ethical rule: "An elected official must not have the right to say anything." When he is caught red-handed lying, he must become ineligible." The Pirate Party has also welcomed a contingent of disappointed Greens. Pierre Mounier, 42, a literature teacher, had long campaigned there: "For me, the priority was to do politics differently, in a less hierarchical, more participatory way. But the Greens have thrown all that out the window." This year, he abstained from the presidential election, and for the legislative elections, he is running as a Pirate candidate in the 15th constituency. He has kept intact the ideals of his youth, but in the short term his strategy is based on the balance of power: "We must make the people of the PS understand that if they refuse to listen to our demands, we will be an electoral threat." Other Greens are testing dual membership. Jérôme Micucci, 41, is a Pirate candidate in Paris while remaining a "cooperator" with the Montreuil Greens. The Pirates know that they will be pushed to take a position on major economic and ecological issues. Some have already taken up a project from the "indignant" movement: the "life income", a universal allowance that would be paid indiscriminately to all humans. Moreover, the program will naturally be enriched, as the party welcomes new members from more diverse backgrounds. The Pirate Party will then face its real growth crisis, and the task of its leaders risks becoming more complicated: how to become more generalist without falling into the right-left divide, which the pioneers of the movement had declared obsolete?

## ###ARTICLE\_START### ID:870

More free software for lower tuition fees. The three associations of IT professionals involved in free software decided to join forces yesterday to encourage Minister Michelle Courchesne to consider this type of application to partially resolve the current social crisis. According to them, the potential savings related to the use of these products in the vast plan to rejuvenate the public service's IT equipment could reach $450 million and thus reduce the increase in tuition fees planned by Quebec by 2017 by more than 50%. In an open letter addressed to Minister Courchesne and published today in the Idées page of Le Devoir, as negotiations with the student movement resume, the group emphasizes that this way out is a double win. It would free the state from the influence of the American multinational Microsoft, which with its Windows 7 should get the lion's share of the expenses related to this plan to replace government software, while giving "new generations the tools to shape and build the Quebec of tomorrow." "Ms. Courchesne said she was interested in all the solutions that would reduce the bill paid to students. Here is one, not insignificant and that provides half the solution," summarized yesterday Benoît des Ligneris, president of the Association professionnelle des entreprises en logiciel libre (APELL). Last March, the Charest government approved a vast plan to migrate 738,000 public service computer workstations to Microsoft's Windows 7 software, a software that is said to be proprietary and linked to costly user licenses that free software does not have. The total bill, by 2014, is estimated by the government at more than $1.4 billion, including $904 million for updating the 500,000 workstations in the education sector, emphasizes the group of free software advocates. "The introduction of free software in the education sector, as elsewhere, is not just an economically efficient solution," commented Cyrille Béraud, president of the Fédération québécoise des communautés et industries du libre (FQCIL), who recently announced his entry into politics under the banner of the Parti québécois (PQ). He is running for the nomination in the Vimont riding in Laval in anticipation of the next elections. "The values supported by free software are based on freedom, work, transparency, sharing and collaboration, elements that curiously correspond to the values supported by the student movement and Quebec society at the moment." For several years, free software, whose use is not subject to operating licenses and whose free access to its programming codes allows for more flexibility, has been widely promoted within public administrations all over the world. It is accompanied by a reduction in government IT bills and ensures the construction of more secure IT environments that are less dependent on products from a single source, its defenders believe. By considering this solution as one of the elements of the way out of the crisis, Ms. Courchesne could therefore, believes Daniel Pascot, president of the Association pour l'appropriation collective de l'informatique libre (FACIL), do much more than "resolve the current conflict." "It will allow Quebec to free itself from the hold of multinationals on our information systems" while "strengthening the expertise and export capacity of Quebec companies" and, as a result, "contribute to building the economy of the future: the knowledge economy," he explained.

## ###ARTICLE\_START### ID:871

Open letter to the Minister of Education and Chair of the Treasury Board, Michelle Courchesne. At the end of March, as the student movement against the tuition fee increase was taking off, your government approved a vast plan to migrate all computer workstations in the government and health and education organizations to Windows 7. The cost of the migration has been estimated by your services at $1.4 billion. It concerns 738,000 workstations, including nearly 500,000 workstations for education. The cost of this project for the education sector alone is estimated at $904 million. The additional revenue anticipated by the tuition fee increase for the 2012-2017 period totals $964 million. Thus, in fact, the increase in tuition fees for the period 2012-2017 will essentially cover (recurring) expenses in software migration and licensing fees, which are imposed on you by a foreign multinational. However, for the most part, the software required for workstations, collaboration and more generally for the education of primary, secondary, CEGEP and university students is available free of charge on the Internet: it is open source software. Possible savings We, heads of companies specializing in open source software, professionals and experts in new information and communications technologies, affirm that the use of open source software in the education sector, instead of proprietary software, would allow savings of more than $450 million and would cover half of the increase in tuition fees. We do not only want to affirm that the use of free software is perfectly adapted to the context of education, but also that it is desirable since the values of sharing, community, ethics and transparency specific to free software are also those that our education system wishes to convey. Free software will give new generations the tools to shape and build the Quebec of tomorrow. It will allow them to appropriate modernity and build a freer, fairer and more prosperous Quebec. Free software will free Quebec from the control that multinationals exercise over our information systems, will strengthen the expertise and export capacity of Quebec companies, and will contribute to building the economy of the future: the knowledge economy. Values of youth The future of our culture, the arts, knowledge and the vitality of our language will be determined by our ability to collectively appropriate new information and communications technologies. This starts with education. Freedom, work, collaboration, sharing and transparency are the values at the heart of the development of free software in the world. These values correspond today to those of the youth of Quebec. Without having the pretension of thinking that this proposal can resolve the current crisis that Quebec is going through, we remain convinced that a proposal to reduce the increase in tuition fees by 50% could contribute to its resolution. BENOÎT DES LIGNERIS President of the Professional Association of Free Software Companies CYRILLE BÉRAUD President of the Quebec Federation of Free Software Communities and Industries DANIEL PASCOT President of Facil, for the Collective Appropriation of Free Software

## ###ARTICLE\_START### ID:872

Opensource, Arduino board, captcha, wePrOn: if these barbaric-sounding terms don't mean much to you, you're probably a n00b (uninitiated), and you're welcome to Toulouse this weekend. Not far from the Canal du Midi, in the huge premises of the artistic collective Mix'art Myrys, the third edition of the Toulouse Hackerspace Factory (THSF 3.0) is taking place. For three days, the space is once again transformed into a giant lab run by coders, artists and enthusiasts. With a leitmotif: do it yourself, close to the philosophy of the place, self-management. Neutrality. Born thirty years ago in Germany with the Chaos Computer Club, the hackerspace phenomenon was imported to France with the TMP Lab, which is participating in the event. The other sharing volunteers come from Spain, Italy, Belgium and even the United States. "Basically, we're an artistic squat; Hacking is not really our culture, explains Renan Le Quémener, employee of the Mix'art collective. Tetalab [a Toulouse hackerspace founded in 2009, editor's note] came to us a bit by chance: we wanted to organize a festival on dance and digital arts, they made us an offer. Here, we are already in the do-it-yourself, do-it-together, refusal of consumption." With nearly 3,000 m2 of warehouse, Mix'art Myrys is the ideal playground for establishing connections between technology and art, digital arts and tinkering. Marc, a network engineer, is also a member of Tetalab. And organizer of the THSF: "To say that you really own an object, you have to be able to take it apart, repair it, add new functions to it. When an engineer adds an LED system to a coffee machine, some artists are very interested." The central theme of this year's THSF: neutrality, a principle promoting a free Internet, without priorities for flows or content. A crucial issue for Tetalab, at the origin of Tetaneutral, a network parallel to the Web. "Labobyrinth". On the program, workshops (creation of your own musical instruments or sex toys), conferences (legal hacking, Internet and freedoms). For the artistic part, concerts of course, with rock and "electro-bidouille", like that of the Barcelonans Filastine or the American performer Moldover. The opportunity also to venture into a "labobyrinth" of the five senses, to listen to household electrical music machines... And to discover the work of the French branch of the Graffiti Research Lab, which presents a graffiti robot. Also to follow in streaming on the Internet.

## ###ARTICLE\_START### ID:873

Every day, humanity produces 2.5 quintillion (10 to the power of 30) bytes of computer data. This production is growing so fast that it is estimated that 90% of all information ever created was created in the last two years. Today, companies are proposing to exploit this mountain of information in order to optimize business processes. Welcome to the era of "big data". Already, this phenomenon of "volume data" has taken Silicon Valley, in California, by storm. It is the fault of the Internet: Google, IBM and Facebook have to sort through a huge amount of data almost instantly. They have discovered that they have a gold mine on their hands. Provided that they structure all this information well. "Big data applies to all industries, but Silicon Valley is the first to tackle it, especially from a technical perspective: at the beginning, the idea was to create a system for distributing this data between several processors," explains Félix Giguère-Villegas, founder of Big Data Montréal, a group of specialists that organizes bimonthly conferences to raise awareness of the phenomenon among businesses, IT professionals and Quebec schools. Big Data Montréal also has a small challenge to overcome: with the emergence of cloud computing, it is no longer just large companies that can create big data systems. SMEs too. This creates a strong demand for specialists, but few in Quebec are proficient in the tools. In fact, the phenomenon is so recent that neither the ETS nor any specialized school offers training on the subject. "In Montreal alone, I see dozens of job offers every month. It's certain that the first school that offers training in big data will see its graduates' first salaries increase significantly. Companies are fighting over them," assures the young Montreal software engineer who currently works for Mate1.com, a dating site that, as you might guess, focuses on processing large volumes of data to help people find their soul mate. Security, video games... Internet forums, Facebook, Twitter and digital imaging are all sources of information that can be exploited by big data processing tools. Most of them revolve around the open source software Hadoop, to which is added a complete range of data exploration tools. Data exploration, or data mining, is not new in itself. It is the volume of data being studied, which has exploded in recent years, that makes the phenomenon more powerful than ever, making it one of the most promising growth vectors in the short term for IT. IDC estimates that the value of big data activities will increase from $3.2 billion in 2010 to $16.9 billion in 2015. Promising applications All areas of business can benefit from it: the security of a business can be strengthened by the live analysis of video feeds from surveillance cameras. Online video games from studios such as Electronic Arts benefit from real-time calculation and distribution of traffic on servers. "It's simple: big data increases the chances of innovation and optimization in business. On the other hand, it is an emerging technology for which everyone, from very large IT service providers to young tech startups, sees promising applications. It is clearly the next big IT wave," assures Dan Vesset, research director for IDC. To contact our collaborator: alain.mckenna@lapresse.ca

## ###ARTICLE\_START### ID:874

Mathematicians are stubborn people. One of them, Timothy Gowers, a Fields Medalist and professor at Cambridge (UK), declared on his blog that he had boycotted Elsevier, one of the three major scientific publishing houses, for years. His statement snowballed and today 8,000 professors and researchers have signed a call for a boycott. Why this unusual action? New information technologies have profoundly changed the publishing of scientific articles. Today, the articles we write are ready for publication. Gone are the days when manuscripts had to be laboriously formatted, especially tables, formulas and figures. Free software like LaTeX allows anyone to produce an article that passes all typographical standards. The articles written by large collaborations have been filtered by several internal review committees and read by several hundred researchers. When you receive the proofs of the journal, you have to be careful: often the changes made introduce more typos and other errors than those they were supposed to correct! The problem is that researchers provide journals with a lot of free work: articles are sent for free, and you even have to pay if you want certain figures to be printed in color. The "referees", these researchers who proofread the articles before publication and judge their scientific quality, work for free. The same goes for the members of the editorial boards of the journals. The reasons for the boycott of Elsevier are analyzed in detail in an article available (for free!) on the site ArXiv:1204.1351. They are due first of all to the very high price of subscriptions, which ensures significant profits: 1.12 billion dollars in 2010, or a margin of 36%. The price per page is three to six times higher than that of journals published by learned societies. Access to journals costs English universities 250 million euros, or 10% of the subsidies they receive from the State. The most shocking thing is the practices that do not comply with scientific ethics. For example, a scientific journal is said to have published 273 articles by its editor-in-chief, including 57 in the same year. He is even said to have declared that "experienced researchers are above this childish and futile procedure of peer review". This call has triggered a lively discussion on the future of scientific publications and the question of their dissemination. Who owns knowledge? Is it private property even if it was produced with public funds? Many researchers propose that publications should be open access, like Wikipedia or free software. This would resolve the issue of access for citizens (who also subsidize research with their taxes) and for developing countries. Beyond this, there is actually a broader debate about what kind of society will be based on all this knowledge and what role private interests and big business might play in it. We should be grateful to mathematicians, whom many would like to keep away from our daily concerns, for putting their foot down and starting a debate that concerns us all.

## ###ARTICLE\_START### ID:875

This is the number of times the free software VLC has been downloaded. The essential multimedia player with the icon in the shape of a construction cone, capable among other things of playing a very large number of audio and video formats, was created in an initial version in 1996 by students of the Centrale Paris engineering school. It has been accessible to the general public since 2001.

## ###ARTICLE\_START### ID:876

Madrid, correspondence - Worn gray jeans, hooded sweatshirt and sneakers, Jon Aguirre Such, 28, says he is just another "indignant" person. Not a leader: the horizontal movement does not recognize any. Not even a spearhead: all actions and positions are decided by consensus during popular assemblies. But this student with a thick black moustache, a beret often screwed on his head, has become one of the most media-friendly faces of the movement, the one who has undoubtedly best synthesized its anger and its hopes. After quoting Einstein ("We do not solve a problem with the ways of thinking that created it"), he speaks of new times, of inevitable changes, of "revolution". Throwing everything away and rebuilding everything. Politics, economics, society. "Changing the tools to change the world. » This, according to him, is the credo of the "indignant" movement that emerged in the Spain of crisis and austerity, just a year ago. On May 15, 2011 in Madrid, this architecture student, spokesperson for the Real Democracy Now (Democracia real ya, DRY) platform, led a citizen demonstration, under the slogan: "We are not commodities in the hands of bankers and politicians." Tens of thousands of people, alerted by social networks, responded to the call. And in the evening a handful of demonstrators spontaneously occupied the Puerta del Sol square, in the center of the Spanish capital, soon joined by hundreds of other campers. In a sort of self-managed village, popular assemblies became an opportunity for a crowd of anonymous people to proclaim their rage and look for ways out. Already outraged on the benches of the faculty - "All we talked about was the real estate bubble, everyone knew it was going to burst" -, Jon had learned about the protest march of May 15 a month before, by chance. "A friend handed me Stéphane Hessel's book, Indignez-vous!, and told me about it." He found himself there. A Basque originally from San Sebastian, settled in Madrid since 2003, he lives in a shared apartment and gets by thanks to the help of his parents. He dragged his feet to complete his final studies project, because "the architect's degree is no longer useful in Spain", but in 2007, he created with friends a platform for reflection on urban regeneration and citizen participation: Paisajes coulissantes ("transversal landscapes"). At the Puerta del Sol, Jon takes part in debates, works on a committee on housing, protests against bank profits and social injustice. He claims the influence of the Situationist International, which he learned about through reading The Society of the Spectacle by Guy Debord. What has happened since? After the dismantling of the Madrid camp on June 13, the movement evolves. Less visible but still present, the "indignant" concentrate on social networks. The large assemblies of the Puerta del Sol give way to one-off thematic assemblies and smaller but more concrete neighborhood committees, where neighbors organize to prevent evictions, propose exchanges of services, demonstrate against the privatization of a service or organize cultural events. The 15M also spreads to other countries and crosses the Atlantic to the United States, where Occupy Wall Street steals the show. On October 15, he initiated the first World Day of the "Indignant", which was followed by varying degrees, but which, in Spain, was a success. To those who asked him why, given that it garnered the sympathy of 70% to 80% of the population, the movement had not given rise to a political party, Jon replied, annoyed: "This question implies that society cannot organize itself, work and fight without being in a hierarchical structure to which it would be necessary to affiliate. Unions and political parties are part of the past. I doubt that they provide solutions to current problems." To those who consider that the movement is dead, he says: "In a short time, we have driven changes, such as the law on transparency, the law that limits expulsions in cases of risk of social exclusion, the delegitimization of the political system... It's not nothing!" Jon acknowledges that he has "less and less time to reconcile activism and professional life." In October, he transformed Paisajes Transversales into an association. "We mediate between civil society and the administration to involve residents in the reappropriation of their neighborhood and create social cohesion," he explains. He hopes to be able to make a living from it soon without giving up his principles, such as making his work available for free on a blog, in exchange for a comment, feedback. "It's about moving from the logic of competition that has prevailed in the capitalist model to that of collaboration." In all the demonstrations against austerity, in defense of public services or in favor of the general strike, the "indignant" gather thousands of sympathizers in their own processions, outside the unions. They continue to criticize the system. "Can we call it democratic when it limits itself to asking for our vote every four years?" asks Jon. To get out of the current crisis, the "indignant" propose to authorize the European Central Bank, for example, to lend to States instead of allowing banks to enrich themselves, to attack more tax havens or fraud, in order to make the "few who concentrate wealth in their hands" pay. But "the crisis is not only economic; it is social, political, ecological, technological. It is a crisis of values. The old paradigms of the 20th century are no longer worth anything. The social structure has changed. Internet, social networks, free software, all this did not exist only twenty years ago and allows other forms of struggle". Sure of himself, Jon predicts: "We are going to have to choose between hyperindividualism and hypercollectivism."

## ###ARTICLE\_START### ID:877

In 2002, the Danish collective Superflex made copies of Danish designer Poul Henningsen’s famous PH5 lamp, the most common fixture in Danish middle-class living rooms. The original had been modified to run on biogas, produced from organic waste, for use by populations without access to electricity. When these copies were exhibited in Sweden, the Louis Poulsen company, which makes the originals, demanded that the exhibition be closed. “We found it completely absurd. Poul Henningsen, who was a communist and who designed this lamp in 1958 for the working class, would certainly have appreciated this diversion, true to his spirit,” says Superflex. “Intellectual property, whether in the form of copyright, licenses or patents, has expanded exponentially in the last twenty years. The fundamental legal concept is "if value then right": when there is economic value, there is intellectual property. The open source movement was formed as a reaction, because this ownership of the code hindered the best possible development of software," explains Superflex. The artists have turned the formula into "if value, then copy." In Chamarande, they are offering the Copy Light installation, a participatory piece where visitors are invited to make copies of copies themselves, a cube-shaped lamp made of translucent paper on which famous designer models have been photocopied. The animated film What Shall We Do Next, by Julien Prévieux, also questions copyright in its own way. It shows a series of hand gestures, all linked to patents filed between 2006 and 2011 with the USPTO, the American Patent and Trademark Office. This chronological succession of increasingly numerous, complex and convoluted "gestures to come" coincides with the arrival of computers, laptops, touch screens, medical tools and other game consoles, machines requiring specific actions that are copyrighted even though the object does not yet exist. We watch these abstract choreographies with amazement while imagining the machine or the use that goes with it. A work that demonstrates how technology shapes our behaviors, but also raises the question of the privatization of these movements.

## ###ARTICLE\_START### ID:878

The man has just officially filed his candidacy for the nomination in the riding of Vimont, in Laval, for the next elections. He is currently the only one in the running. "The Parti Québécois is the only political party that has seriously worked on the free software issue," Mr. Béraud said yesterday during a short telephone interview. In recent years, by defending this cause in the public arena, I have become aware of the importance of free software for the development of society. It is an essential element of modernity, open-mindedness, trust and now, I want to bring this reflection to another level." Currently, Mr. Béraud is the only declared PQ candidate in Vimont. His approach is supported by François Leblanc, former chief of staff to Gilles Duceppe and influential PQ activist in the northern suburbs of Montreal. In addition to Mr. Béraud, David Laneville is vying for this seat as MNA on behalf of Québec solidaire. For now. The current elected official, Vincent Auclair, of the Quebec Liberal Party, has decided not to run for his own office. An IT entrepreneur, president of Savoir-faire Linux and current president of the Fédération québécoise des communautés et industries du libre (FQCIL), Mr. Béraud, 50, became known by denouncing in court a biased contract awarded to Microsoft by the Régie des rentes that deliberately ignored free software. He won his case. Very recently, he found himself on the front lines denouncing the awarding of a similar contract by the National Assembly that left no room for this type of software, which he believes could help develop a stronger IT industry in Quebec in addition to reducing the operating costs of the administrative apparatus.

## ###ARTICLE\_START### ID:879

Crossing paths. On Thursday, May 3, as preacher Youssef Qaradawi, star of the Al-Jazeera channel and yet another religious figure to tour the country, landed in Tunis, another type of speaker was finishing his mission: American Richard Stallman, initiator of the free software movement. An important moment for the visibility of the "free" community, very active during and since the Tunisian revolution. Stallman is "the guru of free software," enthuses the banner hanging on the stage of the Palais des Sciences in Monastir. "The goal of the movement," explained this digital hippie to the audience of young computer scientists and professors, "is that all programs, all users, are free. There are four essential freedoms: to run the program as you wish, to study and modify the source code, to redistribute exact copies, and to redistribute modified copies." The free program "develops under the control of users and by the sum of their decisions" "the proprietary program establishes a system of digital colonization, which keeps the victims divided and powerless", continues Stallman, in a worked French. And he details the "back doors" and other "baits" developed by the "privatizers": Sony, Amazon, or Windows, accused of having sold surveillance technologies to the regime of the former dictator Ben Ali. Not simply technical: "It is an ethical, social and political question", he asserts. "Alternative". In Tunisia, the use of free software has given rise to a community "whose common point is the defense of freedom", highlights Aymen Amri, member of the Hackerspace collective, which carries several "free" projects. Fabrice Epelboin teaches political science applied to the Internet at Sciences-Po, in Paris. Editor of the tech blog Read Write Web France until last year, since 2009 he has built bridges with the free community, co-founded the Tunisian Association for Digital Liberties and participated in the fight against censorship by the Ben Ali regime. "It's a very united community," he explains. "On January 6, 2011, when the authorities censored the downloading of videos on Facebook, it only took an hour to set up an alternative. This was only possible because the networks were already in place." Aymen Amri explains: "Each software, each theme has a sub-community and everyone is in contact." Well before the self-immolation of Mohamed Bouazizi that triggered the revolution, "we found methods to circumvent censorship and we talked about it on our blogs," continues the young consultant. This expertise was valuable during the revolution: attacks on government sites, detection of booby-trapped Facebook pages, etc. Freed from censorship, authorized for public action, the free software community has been in full swing since the fall of Ben Ali. "There is no other country where it is as important. The slightest hitch causes a scandal on Facebook and can lead to a sit-in, admires Fabrice Epelboin. Here, we can experiment. In France, it is already generalized surveillance." The invitation of Stallman, who has participated in several conferences and meetings of the Tunisian free software community, aimed to "promote free software, especially in this transitional period, when we need it," explains Ali Hentati, also a member of Hackerspace. In Tunisia, "Richard Stallman realized that his movement had generated a garrison of young people, completely inspired by his values. Stallman created a whole political philosophy, which is behind the Arab Spring: no leaders, no orders, no project management, but a myriad of initiatives. "This is the first translation on the ground of an online movement," says Fabrice Epelboin. "Secret." Tunisian projects are numerous: creation of a site to denounce acts of corruption, search engines for administrative documents, awareness-raising in computer science schools. Many are pushing for the administration to adopt free software. Created in February 2011, Hackerspace is looking to create similar ones throughout the country. In Sidi Bouzid, the cradle of the revolution, the collective is seeking to unite associations through online collaborative tools. "The priority is local governance. We need to act at the bottom of the scale to change the practices of people who are used to secrecy, not to publishing documents," says Ali Hentati. At the national level, the free community, joined by civil society activists, is defending "open gov": transparency and the liberation of data in administrations, ministries and especially the Constituent Assembly. Around thirty elected officials have taken up the cause. The collective has already obtained access to plenary sessions and almost all the committees. "To consolidate democracy, we know that we must move very quickly," explains Hédi ben Abbès, Secretary of State to the Minister of Foreign Affairs and defender of "open gov" within the government. Our role is limited to defining the legal framework, it is then up to civil society to step into the breach." Tunisia intends to become, he says, "a leading and innovative country in this area."

## ###ARTICLE\_START### ID:880

"Parents of boys invest four times more in computer gadgets than when they have a girl," notes Christina Haralanova. "This is a very important concept to take into account to understand the imbalance that we find later. The teenage years are a period when we have time to experiment with things, especially technology-based leisure activities. A period when we begin to know what we want to do later in life too. If we do not allow girls to be interested in computers at that time, it is not later, with studies, then career, children, etc., that they will do so. So, inevitably, these fields will remain overwhelmingly in the hands of men, at least when it comes to positions such as engineers, developers, designers. In short, the best paid ones." Sexual divisions According to some researchers, technologies create sexual divisions by imposing different roles on men and women in daily life. The divide would initially come from the socialization models of children, as well as from gender segregation in professional and domestic activities. Also, the omnipresence of the male gender would be expressed as much by the social stereotypes imposed in the domestic and professional use of machines as by the masculine language used in the fields of computer science, engineering and science in general. This masculine logic constitutes one of the main factors of exclusion of women in the fields related to information and communication technologies (ICT). It is therefore not surprising that there are so few women among developers. In 2003, in Quebec, barely 25% of computer scientists were women, and a meager proportion of 8% of computer engineers! And yet... In order to integrate into technological fields, many women have had to sacrifice important aspects of their gender identity. To have a successful career in information technology, they must know how to navigate the multiple masculine cultures associated not only with technology jobs, but also with management positions. Sacrifices that men, for their part, do not face. However, in Canada, as in most developed countries, almost half of users are women. "According to a contemporary researcher, Mavic Cabrera-Balleza, the fact that the sector of development of new means of communication is largely dominated by men, particularly those from the North, defines the quality of information circulating on the Internet and via other means of communication based on digital technologies, such as video games," explains Christina Haralanova. She points out that, in this case, "the images of women that predominate on the Internet are stereotypical, with strong sexual connotations, often sexist, and they reflect the popular image of the lifestyles of content developers. The most relevant example remains the caricature represented by the character of Lara Croft in the game Tomb Raider. » For free software! Given this observation, free software, the main theme of the studies conducted by Christina Haralanova, holds a very special place. In order to guarantee certain induced freedoms of users, open source computer programs (or software) allow free use, study, modification and duplication with a view to its dissemination, technically and legally. "Despite the freedoms of use of free software, the rate of women who invest in the development of free software only represents a small percentage, regrets Christina Haralanova. However, there is an obvious link between free software and feminism. It is part of the same fight: because, through these programs, we can fight for women's freedom and freedom of speech. Because, given that the source code is open, that everyone can see it, analyze it and modify it, there can be no bad surprises, particularly on the question of respect for privacy. Take the example of lesbians in a Muslim country where homosexuality is criminalized, the researcher continues. Using regular software that is full of spyware, or even signing up for Facebook, would be very dangerous for them, because the authorities could track them. By using secure and verified free software, they are sure to be able to meet other women, as well as send and share information online without taking excessive risks. "Thus, as a model of participatory open design, free software has the potential to circumvent power relations in society, to reduce the difference between experts and non-experts, between developers and users, between developed and developing countries, between rich and poor. "Feminist criticism aims to denounce all kinds of inequalities in the world," adds Christina Haralanova. Applied to the field of technologies, whether we are talking about use or design, feminist approaches help to combat inequalities not only between men and women, but also between majority groups and minority groups, between dominant classes and dominated classes. » \*\*\* Contributor

## ###ARTICLE\_START### ID:881

This dashboard, which will, to begin with, document contracts and projects related to the renewal of the administration's IT equipment, will subsequently be extended to the infrastructure programs of the Ministère des Transports (MTQ), announced the President of the Conseil du trésor, Nicole Courchesne, before affecting all government activities. The announcement was made yesterday at a press conference in Quebec City during the unveiling of Henri-François Gautrin's report on digital governance. "This is a step in the right direction for building an open and transparent government," said Ms. Courchesne, emphasizing that this Dashboard of the health of government projects - that's its name - had been created with open source software, a form of software that is not linked to royalties paid to multinationals, such as Microsoft. "In the United States, this tool has been in place for a long time and it allows for cost reductions. When this information [on the progress of projects] is public, there are tightenings [in management] that take place," she added. Broadly speaking, this citizen monitoring tool will find its place at the heart of the access portal to all public government data that Quebec is proposing to set up as of June, thus responding favourably to one of Mr. Gautrin's recommendations. The dashboard will assign colour codes (green, orange, red) to projects in progress, but will also detail the schedule, the amounts allocated, the names of the firms concerned as well as those of the officials responsible for supervising the spending. The Minister of Transport should announce in the month of May, specified Ms. Courchesne, his support for this tool for disseminating government information. The shift towards transparency The Project Health Dashboard confirms the government's favourable response to the Gautrin report. The document calls on the public administration to bring its mission into line with modernity by encouraging transparency, collaboration and citizen participation through digital technology and social networks. It also makes 32 recommendations to the government, which Ms. Courchesne says she accepts en bloc. Quebec has even committed to implementing them within a year. In addition to a single access portal for non-personal data from the government, the report led by MNA Gautrin also calls on the government to induce a cultural change throughout the administration in order to promote the dissemination of information and data produced by the government, encourage collaboration between ministries and public agencies, stimulate the creativity of civil servants, and also the participation of citizens in the exercise of democracy and public debates. The report, whose conclusions were presented in Le Devoir for the first time last February, also calls on Premier Jean Charest to set the tone for this reform in a statement on this project to "steer his government towards Web 2.0." He also invites citizens to express their need for government data and to use it to improve public services. "This is not a technical project," Mr. Gautrin summarized yesterday, "but rather a social project that will change the relationship between citizens and the government." This digital adventure, which confirms the objective of "providing a modern public administration," will also be done at "nearly zero cost," the two elected officials specified, with the reform mainly based on a change in internal culture. "We already have the human resources who manage this information. Now we have to make sure that everyone is working in the same direction to make it accessible." For Québec ouvert, an organization that has been campaigning for several months for an open government, the official unveiling of the Gautrin report yesterday, as well as the government's attitude toward it, was described as a "vision with potentially historic repercussions." However, the group invites Québec to make this openness a reality by encouraging standardized data formats and ensuring that for certain organizations it does not simply mean opening a Facebook account. Quebec will give itself one year to ensure this "transparency deployment." The health, transportation, public security, education and natural resources sectors should be the first to reveal themselves.

## ###ARTICLE\_START### ID:882

In Milan, the design "fiera", which always begins with parties, flirted with the grotesque at the Kartell brand evening. When Philippe Starck, then Lenny Kravitz - yes, he dressed the Starck "Mademoiselle" chair in fur!!! - arrived, iPads and iPhones stood up to photograph the two stars who could not be distinguished in the crowd. Everywhere, eyes are replaced by these prosthetics. At the 51st Salone del Mobile, which was held from April 17 to 22, we were bathed in a cloud of bling-bling and all the cables of technology, with the iPad as guest star. It is grafted to the latest connected lamp from the Flos brand, D'E-light, designed by the same Starck. But it was also the first show without Berlusconi, under the austerity regime of Mario Monti. The event, in this context of crisis, turned to the search for new economic models of production. Cushions. All the major contemporary furniture companies have scaled back their frantic quest for new products. At the Rho-Pero exhibition fair, the brands have instead communicated on their know-how. Vitra is reissuing Jean Prouvé's icons, Kartell is dissecting the history of its flagship seats, Flos is relighting its star lamps. But the Mattiazzi company is making a name for itself with the impeccable Medici wooden armchair by the German Konstantin Grcic (opposite page). As new products are rare, armchairs and sofas are changing colors, or are adorned with armies of cushions. At Edra, the Brazilians Campana are reviving the Cipria armchair with chic fur. In town, in the Off lounge, from palaces to industrial wastelands, the Danish fabric company Kvadrat has brought together young international designers. They designed a harmony of cozy furniture, including the star yurt Welcome, from the Mermelada Estudio in Barcelona. Ikea, the Swedish international glutton, presented its PS 2012 (Post Scriptum) collection in the Lambrate district: at the head of the gondola, the colorful openwork metal seat by Wiebke Braasch, at 149 euros. Sawaya & Moroni represented the Meteo-Out chair from 2011, simple as a thread, by William Sawaya who designed a new one, Feifei, in plastic, more sculptural. Do it yourself. Along the streets, we come across the airy Flyknit shoe by Nike, the Gran Ragu tomato sauce can reinterpreted by the designer Stefano Giovannoni, or the car brand Audi which participated in the development of the R8 Ultra Chair. Designed by Clemens Weisshaar and Reed Kram, this seat will be tested by 4,000 people, whose morphologies will be recorded, to end up with a perfect seat. But in this baroque circus, it is the recurring question of self-production that has emerged everywhere. This temptation of "Do it yourself" was already tested in 1974 by the Italian Enzo Mari with "Autoprogettazione". He gave customers plans for furniture that could be made by anyone, using standard wooden boards. At the Triennale, Belgian designers summed up the new context of this very DIY approach well: the economic crisis, environmental protection, the Internet and Opensource, the digital 3D printer, the defense of a new craft against industry. With a desire for more humanity by creating mini-communities. We find these principles at the exhibition of the Domus magazine, "The future in the making", at the Clerici Palace. Markus Kayser's project, "SolarSinter" (2011), is affirmed there: the exploration of glass production in the desert, between solar energy, sand and 3D printer. On the big show side at the Science and Technology Museum, the British Tom Dixon staged "Most", or the short cycle of the digital revolution, to make a chair live. More humbly, the student Gaspard Tiné-Berès, from the Royal College of London, makes his own Lasso shoes, the French company Sculpteo 3D prints complex table pieces like the mesh cup of Normal Studio. And the designer George Sowden creates his company (read below). There are many alternative paths to follow, and many illusions too. Because DIY and roots self-production will not replace the designer, his ideas, his innovations, his commitments. What if design was hanging by a thread? As illustrated by Andrea Mancuso & Emilia Searra from the Moco Loco gallery in Lambrate, with Analogia, a digital line drawing of living room furniture. But these are concretely made in 3D in space, with threads surrounded by black wool. An illusion of the senses.

## ###ARTICLE\_START### ID:883

It is 2:30 a.m. in San Francisco, 5:30 a.m. in Boston, 11:30 a.m. in Paris, 8:30 p.m. in Sydney. It is February. A few hundred activists are chatting on AnonNet, the messaging server of Anonymous, a global and informal movement of Internet pirates. On a temporary channel, a small group is preparing to attack Uschamber.com, the site of the United States Chamber of Commerce, in solidarity with illegal music and film download sites being prosecuted by the American justice system. The mission is to send millions of fake connection requests, which will saturate the targeted server and make it inaccessible. To get the team to work in unison, the channel administrator recommends that everyone listen to the song I Am a Pirate, by rapper YT Cracker, on repeat. Then he gives the ritual command: “Fire!” » To send massive requests simultaneously from a regular PC, special software is required, which is not commercially available. The "Anons", as they call themselves, mainly use LOIC - "low orbit ion cannon", a term borrowed from the video game Command & Conquer. LOIC is effective, but does not hide the Internet addresses of users, who risk being detected. One participant recommends downloading a more secure version, but many ignore it. While firing, the attackers encourage each other, talk about other things, leave, come back, argue. A small group tests the effectiveness of the attack by measuring the traffic of Uschamber.com from different points of the globe - from the United States to Australia, and from Portugal to Sweden: "Here, it slows down. Great. Oh no, missed, the traffic starts again. Fire!" » 2:37: Mission accomplished, the site is no longer accessible from the United States: "Dropped!" 2:44: Uschamber.com becomes accessible again thanks to the help of European servers. The channel administrator then suggests launching a massive attack. 3:00: Fire at will. 3:01: This time, the target is out of service. For the fighters, it's time for recreation: "I'm going to get a pizza. - I've been sitting here for 19 hours straight. I need to sleep." Suddenly, everyone leaves the channel, which vanishes without a trace. To become an Anon, some believe that all you have to do is find a funny nickname and participate in an attack. But for most activists, the commitment goes deeper. Anonymous are the spiritual heirs of the American libertarian hackers of the 1990s, who dreamed of imposing on the Internet a regime of complete free circulation of all types of information and knowledge, without worrying about copyright, intellectual property, or collateral damage. Their successors in the 2000s took up these principles and adopted their mode of action: spectacular computer hacking. At the same time, these young people - mostly boys, and almost all American - created an original subculture, which is the true backbone of the movement: an Anon is not necessarily a seasoned hacker but he must speak their obscure jargon, understand their jokes, have their musical references. And also master their graphic code, because the cradle of Anonymous is an image site. In 2003, a 15-year-old New York high school student, Christopher Poole, opened an English-language forum dedicated to manga based on the model of the Japanese site 2chan (channel 2). Assuming the lineage, he named it 4chan. Very quickly, 4chan received a flood of images of all kinds, which had nothing to do with manga. To put away the unclassifiable ones, Chris Poole created a separate section, named /b/. This is where the most insipid children's drawings, the crudest erotic images, the most bloodthirsty graphic deliriums were piled up in bulk. The fusion of this magma gave birth to the "/b/ style", at once innocent and perverse, serious and childish, rational and absurd. Everything is allowed on 4chan, because visitors can remain incognito. When an Internet user sends a file without indicating a name, the server automatically adds a signature by default: "Anonymous". Thousands of users thus end up with the same signature, which becomes a pseudonym in its own right, then the sign of belonging to a community. The "Anonymous" phenomenon was born. The first "hacks" signed by Anonymous were schoolboy jokes: they hacked the website of the Association of Epileptics, which began broadcasting high-pitched sounds and zigzagging images, the aim being to provoke an epileptic seizure in visitors... But, in 2007, things changed. An activist came across a video showing the actor Tom Cruise giving a speech praising the Church of Scientology. Amused, he posted it on the Internet. Immediately, the Scientologists made it known that the video was protected by copyright and that anyone who distributed it would be taken to court. A priori, the "Anons" had nothing against Scientology, but the use of copyright as a weapon of censorship was experienced as an intolerable aggression. They launched a counter-offensive called "Operation Chanology". They hack Scientology websites, create parody posters and videos, orchestrate a campaign of telephone harassment, denounce the financial practices of the Church. In the heat of the moment, they organize street demonstrations via the Internet in front of the offices of the Church of Scientology in several cities. Their favorite slogan: "Oh, shit, the Internet is here!" But to remain anonymous, a pseudonym is no longer enough, you have to hide your face. They then decided to wear masks bearing the image of Guy Fawkes, the Englishman who tried to blow up the London Parliament in 1605. No problem getting them: they were merchandising products, sold everywhere to accompany the launch of the Hollywood film V for Vendetta (2006), whose hero is a masked superman, fighting against a totalitarian government... At this time, the key concept of the Anonymous philosophy appeared: the "Lulz", a term derived from the abbreviation LOL (laughing out loud). "For the Lulz" means "just for fun", but always at someone's expense, to provoke, with a hint of malice. In order to codify their doctrine, Anonymous published a list of "35 rules of the Internet". Most of them are inside jokes, but some are telling: "Rule #15: The more beautiful and pure something is, the more satisfying it is to corrupt it." Lulz gives all the rights, including the right to contradict oneself at any moment or to reason illogically. To explain their mode of operation, Anons speak of a "Hive Mind", a "hive mind", like bees. If an Internet user regularly visits the movement's sites, he will instinctively know what he must do the day he decides to participate in an action. Decisions are made without a vote, by "approximate consensus", after often very disjointed debates. Some activists are more active or more creative than others, but to date, no leader has emerged: as soon as a member tries to take credit for an action or to set himself up as a spokesperson, he is brutally put in his place by the group. From 2008, the Anons stepped up their fight against the Hollywood majors, guilty of wanting to "kill" music and film sharing sites. That said, the Anons did not try to understand the role of patents and copyrights in their entirety, nor to imagine a counter-theory. In this sense, they were not "political". Rather than preaching, they set an example by donating all their intellectual production to the community (sounds, images, texts and especially software, from which they could have profited). Everyone has the right to seize this data, provided they do not use it to make money. At the same time, Anonymous decided to address world opinion directly: press releases on Twitter, leaflets on Facebook, videos on YouTube, masked demonstrations... The public discovered their official motto, heavy with veiled threats: "We are anonymous. We are legion. We do not forgive. We do not forget. Prepare for our arrival.” The video comments are spoken by a text-to-speech software that produces an artificial voice that becomes the signature of the movement. The language is very formatted - a pompous style, a content without nuances: “The legal concepts of property, expression, identity, movement and context do not concern us, because they are based on matter. But here, there is no matter. We are a sovereign nation.” In 2010, a new actor established itself in force on the Net: WikiLeaks, which divulged masses of secret documents from the United States government. To hinder its operation, American credit card companies decided to block its transactions. Immediately, the Anons joined forces with WikiLeaks and launched retaliatory raids against various financial sites. Despite internal resistance, the politicization of the movement accelerated: some Anons even associated themselves with the "Arab Spring" by helping young rebels from the Maghreb and the Middle East to thwart Internet censorship. It was a minor incident that pushed the Anons towards more radical actions. In February 2011, the computer security company HBGary Federal announced that it had identified about thirty activists, including about ten "leaders", and that it would alert the FBI. The Anonymous were stung: HBGary claimed that there was a hierarchy within the movement - the ultimate insult. In retaliation, they hacked the company's servers and stole a large amount of sensitive data. Caught in their own trap, HBGary's leaders tried to negotiate the return of their files, but the talks failed and the Anons published the company's secrets on the Internet. Shortly after, a group of experienced hackers joined the movement and started doing pure hacking: taking control of servers, stealing data, blocking networks, vandalism... To keep up with tradition, they called themselves "Lulz Sec" (Lulz Security). Their first target was Sony, guilty of having locked their game consoles to prevent the installation of free software and pirated games. The Japanese company would lose a lot of money in the affair. In the process, Anons attacked the American television channels PBS and Fox, publishing false articles on their sites. This would provoke an internal debate: Anons claimed that the media could be targeted like anyone else, others believed that they should not be attacked. Firstly because blocking information was contrary to the principles of the movement, and secondly because Anonymous needed their help. The supporters of the objective alliance with the media seem to have won, because now the AnonNet channels display a warning: "Don't attack the fucking media, period!" At the same time, the Anons are getting a taste for intruding into the real world again. In August 2011, they intervened in a conflict between the management of BART, the San Francisco subway, and an association that wanted to demonstrate to protest the brutality of the subway security guards. In order to prevent the demonstrators from coordinating their action with their mobile phones, BART decided to cut off the relays in the subway stations. For the Anons, this measure was an unforgivable crime: they hacked into BART's servers and organized new demonstrations in the subway. Then they attacked the BART manager who had decided to cut off the phone relays: they managed to find naked photos of him, in the company of another man, and posted them on the Internet - the Lulz is merciless. Deeply affected, the manager had to go on long-term leave. At the end of 2011, a new escalation: Anons penetrated the servers of Stratfor, an American company working in intelligence and "counter-terrorism". They stole the credit card numbers of Stratfor's customers and tried to use them to send donations to NGOs, such as the Red Cross or Care. Anonymous also stole nearly five million confidential documents from Stratfor, and transmitted them to WikiLeaks, which published them in February. A victim of its success, the movement may be changing its nature. It became a brand, which, in turn, was hacked in all directions. In Europe, environmental and leftist activists called themselves Anonymous and carried out actions unrelated to the Lulz spirit. As a price of fame, social science researchers took over the movement. Gabriella Coleman, an anthropologist at McGill University in Montreal, has written several essays on the subject, including Our Weirdness Is Free (www.canopycanopycanopy.com). While she notes that Anonymous, unlike libertarian hackers, has "no enduring philosophy, no political platform, no defined trajectory," Coleman says it has grown far beyond the Internet and established itself in American society as "one of the most adept and effective political operations of recent years." Its success, she says, comes primarily from its ability to "feed on the deep disenchantment with the status quo." It does not need to offer a utopian vision or a program of reform, because it offers a "principle of hope" that is both vague and all-encompassing. In fact, its message is contained in its mode of operation: encouraging Western youth to "abandon individualism in favor of collectivism." On the other hand, "the general orientation of Anonymous often remains opaque, even to those on the inside." The reputation of the movement is such that a small informal message has uncontrollable repercussions. In February, during a discussion on AnonNet, a participant proposed launching an attack against the DNS (Domain Name System) servers that manage the system of addresses on the Web on a global scale. Nothing less than to blow up the Internet. The activist named his project Operation Global Blackout, and announced its launch for March 31. Many of his comrades were skeptical, but the managers of the DNS servers took the threat very seriously. They alerted the media and managed to convince a few large companies to donate several million dollars urgently to improve the defenses of their servers. On March 30, they triumphantly announced that they were ready to face the storm. In fact, on the 31st, no one attacks the DNS servers... The "global blackout" was a fake, just for the Lulz - or to deceive the enemy, until next time.

## ###ARTICLE\_START### ID:884

QUEBEC - After several months of online consultations, the working group on social media and the government is proposing that Quebec make all data from its departments and agencies available on a single portal that would be under the jurisdiction of the Institut de la statistique or the Bibliothèque nationale. La Presse has obtained the report from the committee headed by Liberal MNA Henri-François Gautrin. The report proposes that Quebec do everything possible to provide high-speed Internet throughout the territory. It also proposes that it ensure that "the cost of Internet access remains reasonable." The report recycles the findings of previous studies that revealed, for example, that 78% of Quebec Internet users use social media such as Facebook, Twitter or blogs. These figures represent an increase of 41% for 2010. This is no longer the preserve of the youngest, since two out of three Internet users aged 45 to 54 use these media. In the 55 to 65 age group, it is one in two Internet users. Free software The G2.0 report is silent on the debate around free software. It proposes that the government make greater use of social media to "stimulate and facilitate employee collaboration in the various departments". Jean Charest should affirm his desire to bring the Administration to Web 2.0 and to create an "open government". Mr. Gautrin and the PQ's Sylvain Simard spent the week in Paris to participate in a forum on "e-government". The voice of citizens Government data should be used freely, but Quebec would retain "its right of paternity". Social media should be integrated into all government communication strategies, and there should be provision for "citizen feedback management". Quebec should set up a "citizen forum" managed by the Secretariat for Government Communication. The employer should "empower" employees and trust them in the development of tools for web 2.0. Also, Quebec should "take appropriate measures" to protect its identity on social media.

## ###ARTICLE\_START### ID:885

Co-scientific director of the Digital Art Conservation (1) conference held on 24 and 25 November at the Ecole supérieure des arts décoratifs in Strasbourg, as part of the European project, Anne Laforet is the author of the book le Net art au musée, stratégies de conservation des oeuvres en ligne (Editions Questions théories, L>P). The works are threatened in their current forms, but they are not all sensitive in the same way to the passage of time. This depends on the (relative) "solidity" of their digital materials, or on the question of whether they can have different technological updates while being the same work. Unlike other artistic forms, the sustainability of a digital work must be taken into account from its creation. The conservation of digital art is also a good testing ground for archives that are subject to the same technological obsolescence. Not necessarily, because some works are intrinsically attached to a sociotechnical context, and lose part of their meaning (or even all of it) if they are updated with more recent technologies. In addition, some obsolete materials are maintained by communities, as in the case of retro-gaming, which allows for a better longevity. In parallel with the implementation of conservation strategies, we must imagine ways of showing works that take into account different relationships to time while avoiding what emerges is that the work "does not work". Yes, even if it remains relative. Free software, open formats, open hardware, allow us to bypass commercial strategies that can greatly affect artistic production (for example, Director was a major software for creation in the 90s and early 2000s in particular, and it is almost no longer used). Since the specifications of these elements are shared and documented, it is easier to envisage reconstructions. Free licenses make works potentially more accessible and more sustainable. I find Igor Stromajer's gesture fascinating. In fact, we invited him to the November conference to talk about it. The ritual he established (removing one per day), the documentation of the works he made before deleting them, the possibility for some of them to download their content, have made it possible to make his works accessible again. Even if they have disappeared materially (at least for the moment), they are inscribed in a memory, a sort of orality. Online works need to be accessible, otherwise they are nothing more than a pile of dead files instead of being available for activation. (1) www.digitalartconservation.org

## ###ARTICLE\_START### ID:886

Quebec - The renewal of 738,000 personal computers in the Quebec public administration is a perfect opportunity for the government to "reduce its dependence on Microsoft" and make huge savings thanks to free software, believes the PQ opposition in the National Assembly. Marie Malavoy, research critic, and her colleague Sylvain Simard, critic for the Treasury Board, demanded yesterday that Quebec take advantage of "the extraordinary opportunity to make a prominent place for free software." La Presse revealed yesterday that Quebec was about to give the green light to a series of calls for tenders for the renewal of the computers, most of which run on Windows XP. Microsoft will no longer offer technical support for its platform in two years. With Microsoft's expensive licenses for Windows 7 and the most recent version of its Office suite, the cost of the migration will reach $1 billion for Quebec. This time, the plan is to designate a handful of organizations to plan two separate calls for tenders, one for their central system, the other for "light" office workstations, where software like Open Office would have a better chance of qualifying. Insufficient The door left ajar by Quebec, with its pilot projects, is not enough, believes Ms. Malavoy. "The Act respecting the governance and management of information resources of public bodies and government enterprises, adopted in June 2011, stipulates that the government must evaluate solutions from free software in the same way as Microsoft products. If the government wants to be in line with its own law, it must seriously consider the option of free software in its plan to renew IT workstations in the public service," stressed the MNA for Taillon. "The Treasury Board, which has been given the mandate to carry out this call for tenders, has the opportunity to make significant economies of scale by turning to free software. With an estimated average cost of $2,000 per computer workstation, the total bill will ultimately amount to more than $1.4 billion! The government must behave responsibly and study all possibilities in order to opt for the most economically efficient solution," added his colleague Simard. Like the spokesperson for the "free industries" in Quebec, Cyrille Béraud, they note that "most Western democracies have begun in-depth debates on the place of free software in their state infrastructures. Quebec is clearly behind many European countries and even some Canadian provinces. The government must react promptly so that Quebec takes the path of free software and reduces its dependence on Microsoft products."

## ###ARTICLE\_START### ID:887

"What makes a festival like this one is the team and the encounters," Claude Chamberlan, co-founder and proud director of the Festival du nouveau cinéma, tells us. A formula that may seem simple, but which has nevertheless proven itself. We have to go back to 1971 to witness the birth of what was then called the Festival international du cinéma en 16 mm. This completely crazy project, by Claude Chamberlan and Dimitri Eipidès, aimed to offer a place and a space for films that were only looking to be distributed. It started at the Musée des beaux-arts for this festival, which already presented the films of Werner Schroeter, Frederick Wiseman and Werner Herzog. After welcoming Marguerite Duras the previous year, in 1982 for the 11th edition, the festival, which now bears the name Festival international du nouveau cinéma, invited Forcier, Wenders, Schroeter again, Morrissey and many others. In this edition, a new section is dedicated to video, an innovative form of expression. Jim Jarmusch is there with 31 minutes of Stranger Than Paradise... We celebrate the 20th anniversary of the festival in 1991. Feature films and short films, videos, everything is there, and even the first two episodes of a legendary TV series: Twin Peaks, by David Lynch. Ten years later, the more the years go by, the more the programming diversifies, and, for its thirtieth anniversary, the festival celebrates with Wim Wenders. Today, at 40 years old, the festival has already welcomed the greatest directors from around the world. It now has a professional component, OpenSource, and a new section, Focus Québec/Canada. Once its sustainability is assured, nothing prevents the festival from celebrating its 50th, 60th and even 80th anniversary! After Le Parallèle in 2001 Already the winner of a Grand Prix du Conseil des arts de Montréal in 2001 for the founding of Cinéma parallèle, Claude Chamberlan is proud to win this award in 2012, which honours the Festival du nouveau cinéma: "We always wanted to serve filmmakers and their vision first, by presenting films in 16 mm. Then came 35 mm and video, films and often formats never shown in traditional festivals," explains Claude Chamberlan. The festival succeeds in reaching a very diverse audience, and this has been true since its creation. "We wanted all of this to be very accessible to everyone, and people feel that they are welcome. There is no absolute truth about how to distribute films, but it remains essential to show these works and for it to serve as a meeting place. Like a family reunion... Broken, but necessary." When he looks to the future, Claude Chamberlan hopes to have a year-round presence and collaborators all over the world and also in Quebec. When fiction becomes science Nicolas Girard Deltruc, general director with Claude Chamberlan, has been collaborating with the Festival du nouveau cinéma since 2005. Before landing in Montreal, he worked at MK2 in Paris and the Toronto Film Festival. Nicolas Girard Deltruc closely observes the development of new technologies and the evolution of platforms for distributing "moving images." In this two-headed direction, Claude Chamberlan is the content specialist: he is the one who selects the films. For his part, Nicolas Girard Deltruc considers himself the container specialist: "My job is to see how to orient and organize things so that the festival adapts according to the evolution of the environment. What makes us strong is our flexibility and our adaptability." If there was a time when independent films had difficulty finding a distributor, today, with the Internet, television and cell phones, it is the opposite. Anyone can make a film, distribute it and anyone can watch it, but you still have to find that film, and that's where the challenge of organizing a festival lies. "Today, with all the production, it's like opening the door to the Library of Babel to someone; they'd be completely lost. To avoid wasting time, you need a guide," explains Nicolas Girard Deltruc. A must-see No matter what form it takes, a festival will always be a must-see. It's a place where spectators can discover and exchange, share this collective experience. What will all this look like in 10 years? "Maybe we'll be in a 360 room, with people in the middle watching the film around them. Or it will be a completely round room with a film that will unfold in the center in computer-generated images or holograms." The technical possibilities are numerous and they always have been. We must not forget that cinema was invented by engineers and that it was artists who took hold of it. Nicolas Girard Deltruc looks at what is currently being done at MIT, in Berkeley: "We showed films to guinea pigs, we repeated and repeated the sending of images and, thanks to a scanner, we were able to go and search for the images in the guinea pigs' brains. It's a little frightening because, in this way, we can go from the immersive to the intrusive," Nicolas Girard Deltruc worries and marvels at the same time. On the other hand, we learn that we have also succeeded in restoring sight to the blind: we realized that certain nerve endings in the tongue are directly connected to the part of the brain that visualizes images and passes them directly to the optic nerve. A camera already exists; it takes light, transposes it all into electrical impulses, which the body is able to capture through the tongue and make reappear in the brain... We are here, these technologies exist and we are both fascinated and worried. Often, it is the artists who are the first to tame the technology: "Companies that develop such projects often have content problems. They then do business with artists who they ask to develop a project to make a demo. This happened with the first Apple touch screens: before they were on the market, we saw them in Minority Report," recalls Nicolas Girard. At the Festival du nouveau cinéma, we are already preparing for the next forty years. But we never forget that, "in cinema, it is first and foremost the subject that makes us think and confronts human beings with their questions. The medium does not matter. Since its invention, cinema has been a way of taking a step back, it is a tool." \*\*\* Contributor to Le Devoir

## ###ARTICLE\_START### ID:888

Libéo announced the acquisition of Infoglobe, a firm recognized for its expertise in the world of open source software. "Infoglobe is a company whose expertise is valuable and sought after. It therefore retains its own identity, while offering a complement to Libéo's strength," says Joé Bussière, CEO of Libéo. The acquisition of Infoglobe allows the two teams to collaborate: Infoglobe's 20 employees will work in concert with the approximately 35 members of the Libéo team.

## ###ARTICLE\_START### ID:889

How? By entrusting the Treasury Board with the supervision of calls for tenders that are being prepared to be launched by the various government departments and agencies, including those in the health and education networks, in order to ensure that they respect the spirit of the provincial law on the governance and management of information resources, but also that they make room for free software, Le Devoir has learned. This vast “post migration” project, including the replacement of computers and computer software, should leave the government with a bill estimated at $1.4 billion spread over two fiscal years. In the process, Quebec also intends to completely review the structure of its computer equipment and networks in order to make its equipment less dependent on a single family of products, in this case those of the American multinational Microsoft. And this, in anticipation of the next migration planned for 2022. Free software The office of the Minister responsible for Public Administration and President of the Treasury Board, Michelle Courchesne, explains that this decision was made in order to respond to the many criticisms made by defenders of free software in recent months. According to them, Quebec, while regularly stating its intentions to make more room for free software in its IT environment, regularly lets public bodies make contrary decisions, to the benefit of Microsoft. The government also wants to ensure that the calls for tenders launched for this market of more than $1 billion are consistent with its law, which now stipulates that in IT, solutions resulting from free software must be evaluated on an equal footing with Microsoft products. The opposite was deemed illegal by the Superior Court of Quebec in 2010 at the end of a trial between the company Savoir-Faire Linux and the Régie des rentes du Québec (RRQ). A call for tenders targeting only the products of the American computer giant had then triggered the legal action. The free software players contacted yesterday by Le Devoir did not wish to comment on this government migration plan and on the supervision envisaged by the Treasury Board, preferring to "wait and see". For several months, the question of the government's IT dependency, as well as that of free software, the use of which is not associated with costly licenses, has regularly surfaced in the wake of the ongoing debates on the modernization of the State's mission, on the transparency of computer data or on the construction of a digital democracy. Invited to reflect on the idea of governance 2.0, MP Henri-François Gautrin is also preparing to recommend to Quebec, in a report whose broad outlines were presented by Le Devoir at the end of February, to make a priority of computer data produced "in free formats". According to the information obtained, a school board from Beauce, the Commission for the Protection of Agricultural Land and the Commission for Health and Safety at Work (CSST) will open the ball for these calls for tenders supervised by the Treasury Board.

## ###ARTICLE\_START### ID:890

The Charest government will give the green light for thousands of computers in the health and education ministries and networks to migrate to the new version of Microsoft Windows 7. A contract worth more than $1 billion, but a missed opportunity to make huge savings, say free software advocates. Little room for free software The Treasury Board has just informed all departments that they will not be able to renew their computers in isolation. They will have to participate in the general migration and submit calls for tenders that the Treasury Board will coordinate. The transition to the new version potentially leaves a tiny place for free software - they will have a chance to qualify in a few "pilot projects", but nothing is certain for the much less expensive "open" formula. Quebec is forced to go through a call for public tenders. Last year, the Court ruled illegal the approach of the Régie des rentes, which renewed its Microsoft licenses without tenders. Currently, the ministries and networks use Windows XP software. To change the computer equipment, significant sums are at stake. The costs amount to nearly $2,000 per workstation, and there are more than 600,000 of them in the entire Quebec public administration - a jackpot of $1.128 billion, according to a document obtained by La Presse. The equipment represents 10% of the operation, the license 19%, but the "migration", or support and training, totals 71% of the bill. Thanks to this call for tenders, the government "wants to reduce its dependence on a single supplier, on a particular environment". The departments have been advised not to renew their licenses and to wait for instructions, explains the office of Michelle Courchesne, head of the Treasury. In some organizations, the Treasury, the Commission de la santé et de la sécurité du travail and the Commission de protection du territoire agricole, there are plans to split the call for tenders: one part would concern the organization's central system, the customer database, for example, and the second, the "light" systems, that is to say the workstations on which we only do office automation, for example. Free software would be in a better position to win the call for tenders for these positions, it is expected. Reaction Cyrille Béraud, president of the Fédération québécoise des communautés et industries du libre (FQCIL), is cautious. "Once again, we have to give the runner a chance, but it's been many times, we despair," he says. Politicians have often committed to opening up to free software, but when we talk to civil servants, we understand that everything will migrate to Windows 7." He has few illusions. Without a more muscular decision, ministries will continue to renew their Microsoft licenses for the operating system at high prices.

## ###ARTICLE\_START### ID:891

QUEBEC - The Quebec Liberal Party's Youth Commission (CJPLQ) is considering periodically reopening the Labour Code, opting for free software, amending the Canada Health Act and asking the Quebec Court of Appeal to rule on the unilingualism of Supreme Court judges. "These resolutions will be submitted this weekend to the members of the Youth Commission assembly," explained the group's spokesperson, Philip Proulx, yesterday. The approximately 200 members of this assembly will meet in Saint-Jean-sur-Richelieu. If they are accepted, there will be one final step. All youth wing activists will then have to vote at the annual convention in August. The Youth Commission is partly inspired by the health positions of the Coalition avenir Québec (CAQ), which is proposing fee-for-service funding. It does not want to abolish the current recurring funding. But it would accompany it with another mode of financing based on activities. The young Liberals also seem to want to promote diversity in health. However, they choose their words carefully. They suggest "starting a dialogue" to amend the Canada Health Act to ensure "more flexibility" in the financing of the network. This would be done "while respecting the principle of universality," they assure. The unilingualism of two judges of the Supreme Court of Canada also concerns the CJPLQ. It proposes requesting a referral to the Quebec Court of Appeal to rule on the constitutionality of this situation. Last fall, the Charest government adopted a decree that will promote licensed software, which the Parti Québécois denounced. The CJPLQ proposes a "shift toward free software" in the government apparatus. In August 2010, during the lockout at the Journal de Montréal, the Youth Commission voted to amend the Labour Code to prohibit the hiring of strikebreakers who work outside the employer's offices during disputes. They are now suggesting creating an "automatic review" mechanism for the Labour Code, which would allow it to be re-examined "on a given and known deadline."

## ###ARTICLE\_START### ID:892

NETEXPLO WINNER 2009, Ushahidi.com is already an Internet legend. In January 2008, four friends, including three Kenyans - Ory Okolloh, Juliana Rotich, David Kobia - and an American - Erik Hersman - all living in Kenya, wanted to take action in their country, believing at the time that "the muzzled press does not talk about urban violence after the presidential elections", remembers Erick Hersman. "We created, in three days, a digital platform where any citizen can inform and visualize dangerous places on maps." The success was immediate. The volunteer team was then contacted from South Africa, Chad and India to develop this service. In April, the non-profit company Ushahidi - a name that means "testimony" in Swahili - was created, and the self-service ("open source") platform was launched in October 2008. Ushahidi.com is now present in 154 countries, and has been used by 22,000 citizen projects. From Gaza to Cairo, by SMS, email or video, residents of conflict zones locate places of tension. But not only. During the earthquake in Haiti or the tsunami in Japan, Ushahidi.com was widely used. Uses are invented as time goes by, such as citizen detection of electoral fraud, in Burundi or in South America. A platform is currently active in Syria, another in Libya, but, for the first time, only accessible to the United Nations and 500 people on the ground. Ushahidi created Crowdmap.com in the summer of 2010 to visualize where the platform is used in the world. On Wednesday, March 14, "Swift River" was launched to help Internet users prioritize this enormous amount of information. As for Ory Okolloh, she has just been poached by Google to manage the group's African policy.

## ###ARTICLE\_START### ID:893

It's a somewhat barbaric term for a much more convivial reality. Coworking, or collaborative work, allows a given community to work in a dedicated space that allows for openness and exchange. This is the challenge taken up by Jokkolabs since October 10, 2010. In Wolof (one of the vehicular languages of Senegal), Jokko is the superposition of "joxko" (give him) and "jotko" (join him), a way of emphasizing communication and sharing within a group. "Jokkolabs also wants to carry values that go beyond a space of creativity and innovation. We see ourselves as catalysts who support and strengthen a dynamic with stakeholders on this or that project," explains Karim Sy, founder and director of the structure. Defining itself as the first coworking space in West Africa, Jokkolabs' activities are structured between virtual online exchange and physical co-working space. Thus, Samabaat ("my voice" in Wolof) was born, a citizen platform for information, citizenship training and observation of democracy. Using Ushahidi ("to bear witness" in Swahili), a Kenyan open source technology, it allows geolocation on an interactive map of situations or incidents via text messages or directly from the Web. With financial support in particular from the European Union and Osiwa (Open Society Initiative for West Africa), George Soros' foundation for West Africa, this "crowdsourcing" (use of crowd resources) made it possible to compile and visualize on an interactive map data and testimonies during the first round of voting in the Senegalese presidential election on February 26. Inspired by the culture of free software and open source, Jokkolabs also wants, through a "FabLab" project, to stimulate innovation and a new form of industrial craftsmanship. A desire that has not escaped the giant Google, which signed a partnership at the beginning of the year with the Little Thumb of the "country of Téranga" (hospitality in Wolof) in order to promote entrepreneurship and innovation in Senegal.

## ###ARTICLE\_START### ID:894

PR2 by Willow Garage is based on an open source program that can be modified by the user to, for example, order it to go get a beer from the fridge. And it even knows how to open it... Photo DR

## ###ARTICLE\_START### ID:895

Infographic. Five centuries of robots Robothespian by Engeneered Arts. Nao by Aldebaran Robtics, should be marketed to the general public at the end of the year. Price of the creature: between 3,000 and 4,000 euros. Photo Ed Alcock. Nexidu MIT in Boston (United States), in 2009. Photo Yves Gellie. Picturetank. series "Human Version 2.0" Gilberto 2 meters and more than 100 kilos, from the Swiss Bluebotics. Photo DR. PR2 by Willow Garage is based on an open source program that can be modified by the user to, for example, order it to go get a beer from the fridge. And it even knows how to open it... Photo DR. Jaco by Kinova. This robotic arm can assist the elderly or disabled. Photo DR.

## ###ARTICLE\_START### ID:896

While finance seems definitively disconnected from reality, the artistic collective RYBN is trying to materialize, thanks to ADM 9, speculative activity live. Its market listening device - installed until March 23 at the Gaîté Lyrique in Paris - diverts three ultra-sensitive machines, to transcribe the shock waves that travel through the financial space in order to detect the warning signs of a catastrophe. A seismograph is connected to Forex, the quivering foreign exchange market. The pencil traces the eurodollar magnitude on scrolling paper. A highly symbolic value in these times of Greek crisis, where the collapse of the eurozone is regularly announced. These innocuous oscillations - heralding an imminent earthquake? - remind us that if financial flows are virtual, their impact on the economy and societies is much less so. A hygrothermograph, which usually measures temperature and humidity, here traces the gap between the selling price and the buying price of the eurodollar. To refine this perception of the stock market climate, a dot matrix printer is connected to Twitter, watching for and printing messages where combinations of keywords appear: crisis + euro, austerity + rigor... Because the flow of opinions on the microblogging service is far from trivial, if we are to believe an American university study which shows that Twitter could predict, with 90% reliability and several days in advance, the evolution of the Dow Jones, establishing a correlation between the collective mood and the value of the index. This valuable information could eventually be integrated into the algorithm which controls the amateur trading robot developed in September by RYBN, which is continuing its investigations into the opaque world of finance. Launched on the financial markets seven months ago (Libération, October 1), in the midst of the debt turmoil, people didn't think much of its future. But the robot trader managed to limit the damage and continues to speculate, selling and buying shares automatically, based on a homemade prediction algorithm. With a capital of 8,279 euros, it invests as much as it has money and tries to survive in the jungle of global finance until its inevitable bankruptcy. There is something moving and derisory in the efforts of this low-tech robot trader to stay afloat. This program, developed by artists and without the help of experts, obviously cannot compete with the increasingly sophisticated algorithms of finance professionals, pushed to their paroxysm with high-frequency trading, an ultra-fast mode of buying and selling shares (of the order of a microsecond) executed by powerful computers in automatic mode, taking advantage of stock market micromovements. A booming practice that already represents more than 35% of transactions in Europe and 60% in the United States. "What is the value of a company divided into myriads of small pieces that robots own for a few milliseconds?" asks RYBN. In this asymmetric war, the robot trader opts for parasitism by delivering the secrets of its algorithm to anyone who would like to conduct the experiment, during an introductory workshop on open source finance on March 18. This Saturday, starting at 4 p.m., the collective invites experts and academics to debate the political issues of finance with Antoinette Rouvroy, who will come to talk about "algorithmic government" or the activist philosopher Franco Berardi, author of a resounding article on "finazism". antidatamining.net

## ###ARTICLE\_START### ID:897

Serge Abiteboul, a computer science researcher at Inria - Inventeurs du monde numérique, at the Laboratoire caractéristique et révision (LSV) of the Ecole normale supérieure de Cachan, will be the third holder of the Computer Science and Digital Sciences chair at the Collège de France. On Thursday, March 8, he inaugurated his course on "Management of digital information by computer systems." Or how the Web needs mathematicians and computer scientists to help Internet users navigate the data jungle. What will be the objective of your course at the Collège de France? I would like to show that the science of data management is a research subject in its own right and is exciting. It is my field, on the border between applied research and fundamental research. We can make contributions that will have an impact in science but also in society and industry. Let's not forget that this field is at the origin of two great successes of the 20th century, databases and search engines, whose main players, IBM, Oracle and Google, are industrial giants. Everyone knows the importance of search engines, a little less that of databases. Yet we use them constantly without knowing it, by querying our bank account, a directory or an online catalog. Behind it there is often a database system that transforms our "question" into a program that calculates the right answer. Why is mathematics and theoretical computer science needed in these tasks? At each stage, we find algorithms, optimization and even theorems. For example, it was necessary to invent simple and abstract languages to allow humans to communicate with hardware (hard disks, memories, networks). These languages are based on mathematical logic. We can truly "calculate" the answers, that is to say, chain a series of logical operations on the objects referenced in the database. Processing very large volumes of data in a reasonable time is complicated. To perform the calculations of a search engine like Google's, you need very sophisticated algorithms and crazy engineering. It may not be mathematics anymore, but it is computer science of the highest order. We take advantage of the fact that a single machine does not need to calculate everything; the load is distributed among thousands of machines. When you move to these scales, it is just as fundamental to be able to verify that an algorithm calculates what you want as it is to predict how long this calculation will take. This is the field of computability theory, initiated by Alan Turing, whose centenary of birth we will celebrate this year. All this seems to work. Why keep looking? There is still work to be done! When you ask me a question, you do not use one or two keywords as you do with a search engine. And if you expect a specific historical date as an answer, you will not appreciate it if I simply give you a list of pages and say "dig into that". However, the search engines on the Web are still there and it is not satisfactory. We must build a Web of knowledge. It is also called a semantic Web. We must give meaning to the documents existing on the Web, to the services available. We must also invent systems to acquire new knowledge. How? For example, just by analyzing Internet users' requests, Google was able to predict the arrival of the flu faster than the official epidemic warning organizations. Online dating sites match their customers' profiles. Other merchant sites suggest films and books to Internet users that they might like based on statistical analyses of the data they have. Discovering the knowledge buried in the mass of information on the Web is one of the great challenges. Another is to get the millions of systems that will soon have, exchange and deduce knowledge to collaborate. These problems are complicated and economic pressure will probably mean that we will favor tinkering with solutions. I think that we will only solve them by diving into the fundamental questions and developing the appropriate theoretical tools. In any case, the problems are not only technical. For the Web of Knowledge to develop, the Web must also remain as open as possible. Are you pessimistic? We have many reasons to be pessimistic. The industry, helped by governments, is constantly changing the Web, gradually closing it down. We only have to consider the possible consequences of the Anti-Counterfeiting Trade Agreement (ACTA), which will restrict Internet users even more. The Web is too much driven by intellectual property and money. However, Web companies should understand that the real values are mainly in the Internet users themselves. Citizens must also take charge of these issues. Take social networking systems. There is nothing technically preventing us from creating a social network system like Facebook in a totally distributed way, that is to say, non-centralized. Everyone would keep control of their personal data. We need to inform and educate on these issues. We also have some reasons to be moderately optimistic. We can observe initiatives that are moving in the direction of a more universal Web, such as free software, creative common licenses (an alternative to copyright), open data. We need to continue and end up with the Web at the free dissemination, open to all, of all the knowledge and all the culture of the world.

## ###ARTICLE\_START### ID:898

He represents the marriage of the carp and the rabbit, of paper and the pixel. A profile that is perhaps too rare, well inspired by the evolution of the digital book market. If this market represents barely 1% of the sale of titles in France, it is close to 10% in the United States. A promise, then. And with his double jacket of bookseller heir to a house founded in 1907 and high-tech entrepreneur of Silicon Valley, Guillaume Decitre, 45, is throwing himself into the fight. His weapon: a digital book platform, TEA (for The eBook Alternative). Advanced virtue of this company, for which Decitre (third bookstore in online sales of "physical" books, behind Amazon and Fnac) has joined forces with the cultural and artistic chain Cultura, the online commerce group RueDuCommerce, the French company specializing in open source solutions Smile, with 100,000 euros from the National Book Center and the collaboration of the Ecole Normale Supérieure de Lyon: to offer the first open source solution for distributing eBooks. In other words, the platform can be enriched at will by web players, who will not be locked into a proprietary system. Guillaume Decitre mentions Amazon, which does not allow you to directly read books purchased elsewhere, or Apple's iBooks, which does not work on Android, etc. TEA promises an interoperable solution on all reading media and an open and shared library. All publishers will be able to offer their catalog there, and booksellers will be free to use the system, which will be rented under their name. If the bugle is sounded seven days before the opening of the Book Fair, the operational launch of TEA will take place at the beginning of April, with the first sales and reading applications for Bookeen e-readers and Android tablets, and a catalog of 60,000 titles. The HTML 5 master key (compatible with Apple and Kindle Fire) will follow in June. To embellish its advertising, TEA has split itself into an eBook reader manifesto. Second article: "Read, manipulate and access your books on the device of your choice."

## ###ARTICLE\_START### ID:899

Three letters for an ambition, "TEA": to become the party of all those who love books and want to ensure the maintenance of a plurality of players in this market. In this case, this TEA has nothing to do with the American "Tea Party". It stands for "The ebook Alternative". An initiative launched on Thursday, March 8, by Guillaume Decitre, the boss of the Lyon group of bookstores of the same name, with the brands Cultura, the Rueducommerce site and the IT services company Smile. This is the first so-called "open source" platform for distributing digital books. It will be in service from April 4. "Open source"? The term refers to the notion of openness. "We must fight against the proprietary model," explains Guillaume Decitre. In the online world, everyone must be able to choose their reading medium, their bookseller and keep the reading rights that they have purchased and which belong to them. "This platform has three objectives: to allow publishers to distribute their digital catalogue, to make booksellers digital players and to allow readers to have their digital library with them at all times, regardless of the medium (tablet, e-reader, computer, smartphone) they use. On the publisher side, TEA has already signed in France with the La Martinière, Flammarion, Gallimard and Editis groups to access their catalogue of digital books and is negotiating with Hachette. Foreign publishers are expected to follow. The National Book Centre (CNL) has granted aid of 100,000 euros. TEA is accompanied by a "Manifesto for the reader of digital books", which states that everyone must be able to "read, manipulate and comment on digital books where they want, when they want and how they want, regardless of the distributor and the reading material". Accessible on the iPad In the sights of the initiators of the project: the American e-bookseller Amazon, with its Kindle e-reader, and the giant Apple, with its iPad tablet, which offer closed models and threaten to share the digital book market. A TEA application will be available on the Bookeen e-reader from the French company Cybook, running on Google's Android operating system. In June, via an independent browser that the user will have to download, TEA should be accessible on the Kobo platform, but also on the iPad, from Apple. Only the Kindle remains a closed system for the moment, but, technologically, the Kindle Fire tablet (not yet marketed in France) should allow books to be read under TEA. Together, the groups Cultura, Decitre (8 bookstores in Rhône-Alpes, 400 employees, 70 million euros in turnover in 2011) and Rueducommerce represent 60 physical points of sale and more than 8 million unique visitors per month on the Internet. TEA aims to open up to other independent bookstores or cultural brands. In a few months, the model also plans to export to Spain and Portugal, then to the rest of Europe. To complete its global offer, the CEO of Decitre launched, on February 2, "Entrée livre" which aims to be the first community site for reading recommendations. Free, close to what Babelio does, this site allows Internet users to share their tastes. For Mr. Decitre, "the bookstore of tomorrow is not dead, but it must find the right digital paths."

## ###ARTICLE\_START### ID:900

She is a centenarian who has chosen to live with the times. And even to anticipate the future. The Decitre bookstore, founded in 1907 with a first store on Place Bellecour in Lyon, now intends to do nothing less than compete with Amazon and Google in the digital book market. An exciting battle, although, a priori, largely disproportionate. The new tool, called "Tea" - for "the ebook alternative" - is being presented today in Paris. This distribution platform has three objectives: to allow publishers to distribute their catalog, to make booksellers fully-fledged players in the digital world, and finally to give readers full latitude to manage their virtual library. At the origin of this challenge, Guillaume Decitre, aged forty-five, is first and foremost perpetuating a long family history. His father ran the company for thirty-seven years, gradually growing it: eight - and soon nine - locations are listed in Rhône-Alpes, in Lyon, Annecy, Grenoble and Chambéry. General literature bookstores, each employing between twenty and forty people, proof of their vitality. Nearly 400 people work at Decitre, whose annual turnover is 70 million euros. A true cultural SME which, via Tea and digital development, is now giving itself international ambitions. "I've been hearing for twenty years that the digital book is going to kill the paper book. In the meantime, many start-ups in Silicon Valley that claimed to organize this revolution have disappeared. Nevertheless, digital is coming and we need to develop solutions that will allow these new reading methods. And it is dangerous to rely on a few multinationals that have largely locked down the system," explains the man who took over in 2007, following his father's serious illness. At that time, the Decitre bookstore was already starting to sell books on the Internet, in addition to creating a community site for recommending readings called Entrée Livre, "a sort of Facebook for books that encourages discussions around texts." Studies in California Initially, Guillaume Decitre had distanced himself a little from the family group. Destination the United States, where he continued at the University of Santa Clara in California, a course he had begun at ESC Grenoble. Then came ten years in Silicon Valley, with activities in turn in IT, venture capital and entrepreneurship, via a start-up dedicated to mobile phone advertising. Even far from books, this combination of experiences greatly helped to develop Tea. They were several partners - including the cultural goods retailer Cultura, Rue du Commerce and the IT services company Smile - who combined their skills. "Currently, digital book offerings operate in a closed circuit: if you are an Apple iBook customer, for example, you cannot read on an Android tablet, or if you buy books protected by Amazon Kindle, you cannot read them with another digital reading solution, summarizes Guillaume Decitre. With Tea and the open source mode, we are working to allow you to read on the medium of your choice, to choose your e-commerce bookseller, while keeping control of your reading rights." Writers at the family table Guillaume Decitre remembers his first steps in the world of books well. "When I was a teenager, there was no TGV yet. So, when authors came to Lyon for a signing session, they stayed for dinner. I was able to rub shoulders with many authors like that at the family table, including Romain Gary, Pierre Miquel and Michel Serres. These meetings left a mark on me, and some writers became friends. » While the person concerned readily gives his definition of a "good" bookseller - "one who knows his stock well, and also the tastes of his customers, so as to guide them effectively" - he does not intend to play the role of prescriber for his three children. "In any case, I would have little chance of being heard! Inclinations for a particular genre or author are first provided by friends. On the other hand, I see to what extent the younger generation is taking the digital turn, and continues to read." At the start of 2012, at the time of launching this new Tea tool, Guillaume Decitre ultimately regrets neither having joined the family business, nor having left the United States behind. "The two curves have joined. In the United States, I was impressed by the ambient, entrepreneurial dynamism, by this capacity to want to lead projects of all kinds, and to innovate. From France I keep this attachment to culture, to values of freedom and openness and that it is fundamental to defend, a fortiori in this new digital world. "Our platform allows you to read on the medium of your choice and to choose your bookseller"