**OVERVIERW**

A  **computer**  is a device that can be  [instructed](https://en.wikipedia.org/wiki/Computer_programming)  to carry out an arbitrary set of [arithmetic](https://en.wikipedia.org/wiki/Arithmetic) or [logical](https://en.wikipedia.org/wiki/Boolean_algebra) operations automatically. The ability of computers to follow a sequence of operations, called a [*program*](https://en.wikipedia.org/wiki/Computer_program), make computers very applicable to a wide range of tasks. Such computers are used as [control systems](https://en.wikipedia.org/wiki/Control_system) for a very wide variety of [industrial](https://en.wikipedia.org/wiki/Programmable_logic_controller) and [consumer devices](https://en.wikipedia.org/wiki/Consumer_electronics). This includes simple special purpose devices like [microwave ovens](https://en.wikipedia.org/wiki/Microwave_oven) and [remote controls](https://en.wikipedia.org/wiki/Remote_control), factory devices such as [industrial robots](https://en.wikipedia.org/wiki/Industrial_robot) and [computer assisted design](https://en.wikipedia.org/wiki/Computer_assisted_design), but also in general purpose devices like [personal computers](https://en.wikipedia.org/wiki/Personal_computer) and [mobile devices](https://en.wikipedia.org/wiki/Mobile_device) such as [smartphones](https://en.wikipedia.org/wiki/Smartphone). The [Internet](https://en.wikipedia.org/wiki/Internet) is run on computers and it connects millions of other computers.

Since ancient times, simple manual devices like the [abacus](https://en.wikipedia.org/wiki/Abacus) aided people in doing calculations. Early in the [Industrial Revolution](https://en.wikipedia.org/wiki/Industrial_Revolution), some mechanical devices were built to automate long tedious tasks, such as guiding patterns for [looms](https://en.wikipedia.org/wiki/Loom). More sophisticated electrical machines did specialized [analog](https://en.wikipedia.org/wiki/Analogue_electronics) calculations in the early 20th century. The first [digital](https://en.wikipedia.org/wiki/Digital_data) electronic calculating machines were developed during [World War II](https://en.wikipedia.org/wiki/World_War_II). The speed, power, and versatility of computers has increased continuously and dramatically since then.

Conventionally, a modern computer consists of at least one [processing element](https://en.wikipedia.org/wiki/Processing_element), typically a [central processing unit](https://en.wikipedia.org/wiki/Central_processing_unit) (CPU), and some form of [memory](https://en.wikipedia.org/wiki/Memory_(computers)). The processing element carries out arithmetic and logical operations, and a sequencing and control unit can change the order of operations in response to stored [information](https://en.wikipedia.org/wiki/Data). [Peripheral devices](https://en.wikipedia.org/wiki/Peripheral) include input devices (keyboards, mice, joystick, etc.), output devices (monitor screens, printers, etc.), and input/output devices that perform both functions (e.g., the 2000s-era [touchscreen](https://en.wikipedia.org/wiki/Touchscreen)). Peripheral devices allow information to be retrieved from an external source and they enable the result of operations to be saved and retrieved.

**History of Computer**

The first microprocessor appeared on the market in 1974. A year later, it was used to build the first microcomputer, called Altaïr: the microcomputer was born, it was 22 years ago.

The Altaïr, and the first machines that followed, sold a few thousand copies to individuals passionate about computers who could not afford to afford hours of mini-computer in timeshare. A year later, machines (such as the Apple II) appeared which already had all the functions of a real computer, and whose companies became the main users in the early 1980s.

In Micro-Computing, the technique advances to a train of hell, while the cost remains practically constant. This is due to the progress of the integrated circuits (the number of transistors which are written on a double chip every two years approximately), and peripherals (in fifteen years the capacity of hard disks has been multiplied by a thousand). The market followed: in 1987, the turnover of the microcomputer exceeded that of all the other sectors of computers combined. About 3 million Macintosh and 60 million PCs will be built worldwide this year. The world's installed base of computers includes about 250 million microcomputers and servers, 300,000 workstations, tens of thousands of mini-computers, and 2,000 large machines. The fantastic growth of micro-computing is intimately linked to the rapid development of information in our society and to the ever-increasing digitization of this information. But this growth was not without pain: in the mid-1980s, a crisis shook micro-computing, and many companies disappeared. Who remembers Atari Corp., Computer vision, Commodore, Eagle, Osborn, Mohawk Data Sciences and Visual Technology? Of the 14 memory makers of that time, only two survivors remain today ...

At the beginning of the 1990s, the home computer became a reality, at least in the United States. Over the past two years, the number of American households equipped has reached a ceiling of around 40%. In France, widely dispersed figures are cited (5 to 15%), but everyone agrees that the home computer market is starting.

The first microcomputers were isolated machines. But there was a rapid need to share common resources, be they data or hardware: so networks were born. In small "peer-to-peer" networks, each machine can be both a client and an information server. Large networks, on the other hand, require a dedicated server. It is a machine more muscular than a microcomputer running, and operating under a multi-tasking and multi-user operating system (Unix for example). The domestic microphones themselves do not remain isolated: in the United States, half of them are equipped with a modem. The largest of all networks is the Internet: several tens of millions of microcomputers are connected to it.

In the second half of the 1980s, there was a need for more powerful single-computer computers than microcomputers (for graphic applications in particular). Thus, the workstations were born, operating under Unix. The Unix world (servers and workstations) has developed parallel to the PC world, but with different characteristics. Each manufacturer has its own version of the Unix operating system, and there are almost as many platforms as manufacturers. More segmented, the market is also much narrower than that of microcomputers, but costs are much higher, and margins are much more comfortable. Sun Microsystems was the most successful company in this area.

**Actual Situation of Computer**

Technological advances are accelerating considerably in the 1990s. Today, Micro-Computing is growing at a pace very fast. With the miniaturization of the hardware components, we are talking about Nano-technology.

Now let's see what our current computers are capable of. Many steps have been taken by computer science, but there are still many obstacles to overcome. The main advantage of the current machine is the speed of processing and the accuracy of the calculations. A computer can be used to take stock of its revenues or to perform faster ranking tasks that would otherwise be long and tedious. Now more and more accessible due to very precise research methods. The computer can classify and manage data of all kinds. It can also be used as an agenda. This is why financial management programs and data ranking have appeared among the first. The main problem with these programs is their Incomplete character. A function that a person might need is not necessarily integrated into the program. This makes some people reluctant to use this software. The computer is also a very good creative tool. Nowadays, the power of the machines makes it possible to perform photographic retouching, to create three-dimensional images quickly and to compose music. The greatest advantage is that a beginner can easily embark on creation without Have a prior knowledge. Of course, such a machine brings great consequences on society. The worker is affected by these changes. His productivity is accelerated. However, due to the rapid evolution of computing, it is constantly forced to adapt to new systems, to learn new languages. This can create tension in him. However strange it may seem, many people seem to be able to cope with this kind of constraint as if it were the stimulus that motivated them. Given the possibility that they are able to fulfill themselves faster and more perfectly Tasks, they give the best of themselves, surpassing themselves in skill and efficiency. Everything happens as if their aim was no longer to fulfill what they were asked to do, but to face and overcome constantly renewed difficulties. The repercussions of the appearance of the computer are also very great at the social level. This machine has indeed profoundly changed interpersonal relationships. The risk of passing the computer before these relationships becomes more and more real. The computer can therefore promote isolationism. Fortunately, as we will see later, communication between computers could provide a solution to this problem. But it is becoming more and more alarming to ask what the exponential development of the computer will lead us to. Will it be beneficial or not? For our part, we believe that it will be beneficial in the long term. Indeed, the mistakes made will be repaired over the years. It may be necessary to wait for centuries before we can live in the computerized society that we imagine. Neither the computer nor the human being is ready for that. Let us now see what the computer lacks, apart from intelligence, so that it can support a computerized society. First, the information kept by the computer is not immune to malicious eyes. Anyone can penetrate the defenses of the machine with a little effort. Fraud and spying techniques are easier to improve than ways to prevent them. The security of information is therefore precarious because the computer can not recognize the right person from the wrong one. Nor are the data safe from voluntary destruction. Data carriers are not protected against significant changes in conditions such as decreases and temperature rises. They are even more vulnerable to floods or fires. Deliberate sabotage is another factor in data loss. If the destroyed data has not previously been saved, dramatic losses may occur. Another shortcoming of the machine is the treatment of human errors. The computer can perform some checks, but errors can still slip. The human is not perfect and it is not immune from errors. Of course, a small error can sometimes have catastrophic consequences. It can be very difficult and time consuming to detect. Errors can occur at both the software and hardware levels. We therefore conclude that the computer is not yet ready to become the main element of the company. It must undergo many improvements and modifications.

**Perspectives of evolution**

When the computer is perfectly perfected, its benefits will be countless. However, it will be necessary beforehand to avoid many pitfalls so that our society does not become a real hell.

The computer will offer increased individual comfort. It will therefore be possible to make purchases while staying at home. Work can also be done at home, avoiding the loss of travel time. The latter will also be more interesting due to the fact that any repetitive and annoying task will be entrusted to a computer.

The computer will also revolutionize education. Learning will be completely different from what it is today. The computer will free the memory of the child from a multitude of things it does not have to do: everything that is routine, easily formalizable, everything that can be stated in "hard language. ". When we account for all the materials in which computers could intervene, there is little that man must take on his own. Little in quantity, but much in importance, and especially the sense of the beautiful, the just, the good, all the values ​​that a true intellectual perversion gives for "outdated" and which, contrary to what one imagines, are not innate but, on the contrary, they learn a great deal, hard. And certainly not with machines, but with real masters.

There will be more and more free time. Leisure will then occupy a more important place in our lives. Imaginary journeys will be possible among other things. As these techniques already exist, they are likely to be affordable for everyone in the future. The interaction between the person and the virtual world will increase considerably. However, in order to reach such a world, many obstacles must be avoided.

The greatest trap constitutes too great a centralization. This would allow the State to exercise absolute control over each person. Expenditure, habits of life, work and even intimacy would be disturbed by an abusive centralization. Freedom would be violated. Another trap in which, in our opinion, we have already fallen is the specialization of tasks. Specialization constitutes ghettos whose harmonization cannot be effected by means of serious crises. It creates boundaries between different sectors of the economy. Versatility on the contrary allows for local adjustments.

Proper use of the computer would allow versatility, as this machine could decrease the knowledge needed to perform a job. The biggest trap of all, in our opinion, is to be dominated by the machine, to adapt to its nonhuman language. Some people do, thinking to dominate the computer.

However, exactly the opposite happens. The power to decide, to make choices and emotions, feelings are the characteristics that make us superior to all machines. Loss of these characteristics would be a serious mistake. So we cannot say with certainty that we are on the right track. The Internet can however make us believe. This network of networks is a grouping of countless computers connected together. There is no central power, therefore no possibility of total supervision. The Internet is also a set of services gathering the World Wide Web, FTP, e-mail, newsgroups. Internet was born because of the war. The military wanted to create a network that could still function in case of partial destruction. The ancestor of the Internet is Arpanet. The National Science Foundation (NSF) was born. The modem then allowed a connection to the Internet at home via a telephone line. The network of networks became commercial and accessible to all.

However, the Internet is not perfect. The main problem is speed. The modem and the telephone line are not fast means of transmitting or receiving a large amount of information. Fiber optic could however solve this problem. Unfortunately, its price is not yet affordable enough. Another problem is the security of the information transmitted.

Coding can provide a solution, but the computer that receives the data needs to know how to decode it. The possibility of computer virus transmission is also a major gap in the network. Many pitfalls remain to be avoided to be able to live without hassles in a computerized society. Fortunately, the Internet gives us hope that we are on the right track.

**Conclusion**

The rapid evolution of the computer proved through its history leads us to believe that it will continue to accelerate over time. This is due to the fact that the current computer is not perfect and could not be used as such as a central element of a fully computerized society. When this evolution is over, the benefits to mankind will be great if we succeed in avoiding the pitfalls that will reach out to us. In our opinion, the Internet proves that we are on the right track. However, the computer can increase a central power. It would therefore be necessary to study what disasters this centralizing power could bring in order to try and foresee them and save the world. On the other hand, the computerized society could bring countries closer together. The high speed of communication will eliminate physical distances between people on the planet. This can even prevent some wars and conflicts. However, it will take time before this happens.

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