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STANDARDS 2004 – THE YEAR IN REVIEW

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Standards are about more than dry technical specifications. They can be the tools employed to conduct international relations and to wage great commercial battles. They can also tell us something about our own ability to agree, and perhaps point the way to a better tomorrow.

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Some stories from last year continued to be active, while others sank from sight. And, of course, many new ones emerged on a daily basis. Here is the standards news of 2004 that we think was most important, and why.

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Consortium Standards Bulletin is a free monthly electronic Journal sponsored by the Boston law firm of Gesmer Updegrove LLP. The current issue of the **CSB** and a subscription form may be found at www.consortiuminfo.org/bulletins. Questions or comments about these articles, the **CSB** or ConsortiumInfo.org may be directed to Andrew Updegrove at updegrove@consortiuminfo.org.

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EDITOR'S NOTE

LOOKING BACKWARDS (FOR A CHANGE)

In this issue we once again look back on a year of rich and varied news about standards and standard setting.

In our Editorial, we try and place that news in a broader context than merely the creation of dry specifications, noting not only the international and commercial forces at work, but also the broader social and economic implications of this important process.

In our Feature Article, we share what we believe were the most important areas of news as well as the specific stories that had the greatest significance for business, the international scene, security and our everyday lives.

In our Trends Article, we look at the news of the year in a different form, presenting a daily diary of the top news stories as they developed throughout the year.

Our next piece is a first for the Consortium Standards Journal – a recognition of those standards organizations that we believe consistently generated the most important news, and the media that provided the best coverage of it.

And finally, in the Standards Blog, we reflect on the differences between standards and conventions, and our ability (and sometimes inability) to tell the difference between the two.

As always, we hope you enjoy this issue. And if you do enjoy this **free** issue, don't forget to **Buy Your Books From Biff**. Whether you're looking for a technical book listed on our site, or simply use the Amazon link that you'll find at Biff's to buy anything else that Amazon sells, you'll be helping support this journal and ConsortiumInfo.org.

Best regards,



Andrew Updegrove
Editor and Publisher

EDITORIAL

A SEASONAL STANDARDS MESSAGE

Andrew Updegrove

What makes a good standards news story good?

Despite the fact that as many as a million standards are being maintained in the world today, much standards news would not be considered to be “hot” in any conventional sense. Which is not to say that standards are unimportant, since almost everything we buy, use, eat, and otherwise rely upon is based upon them. Still, that is not the same as saying that standards news is exciting news.

We think that’s a shame, because standards are not only important in a practical sense, but they also have many attributes that transcend mere pragmatics. As we have observed in past articles and Blog entries, we believe that the practice of creating standards goes to the very heart of what it is to be human -- and to the good side of being human at that.

After all, in what other process do hundreds of thousands of people from a multitude of nationalities, faiths and cultures meet on a regular basis to *voluntarily* agree to do things the same way, even if it means giving something up without coercion? That, in and of itself, is certainly newsworthy.

The process of setting standards is also a crucible within which wider forces often play out. To give but three examples, this year international trade jockeying between the United States and China played out against a backdrop of wireless standards; some of the largest technology companies in the world bet a significant measure of their future success on a standards-based bid to convince the marketplace to embrace Web services; and not only vendors but governments sought to escape the dominance of Microsoft by embracing an operating system named Linux that had been created by software engineers in their spare time.

Similarly, standards can create vast benefits to society above and beyond their immediate utility by creating the type of “network effects” that occur when more and more independent elements become interoperable. Such standards-based networks as railways and telecommunications have literally transformed society in a matter of generations -- something that the Web has managed, through more advanced technology (and standards) to accomplish in a mere decade.

We consistently try in this journal to bring standards, and the process of creating and promoting them, alive in this type of broader context, not only for those that know little about standards, but also for those professionals that may be too close to their work to truly appreciate the added dimensions that standards entail.

We believe that standards *matter* – powerfully. All at the same time, standards and the fact that people are capable of working together to create them benefits us, informs us about who we are, and perhaps even shows a better way for human society to interact in the increasingly complex and dangerous times in which we live. The fact that we can so pervasively create consensus-based standards may be one of the most hopeful signs that humanity is capable, against all the abundant evidence to the contrary, of more than international strife and advantage taking.

It is one of the principal goals of this journal and the site that hosts it to encourage the realization of this reality, and in some small measure to promote the serious appreciation, study and adoption of standards, both technical and of human decency. We will be well rewarded indeed if that goal is achieved.

In that spirit, we wish all of our readers the peace of the season, now and in the year to come.

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FEATURE ARTICLE

STANDARDS 2004: THE YEAR IN REVIEW

Andrew Updegrove

Introduction: Standards stories tend to be serials rather than specials. True, some stories relate to singular events, but many others play out over time, even if the media first catches on to them as a result of a specific event or announcement.

As a result, many of the most important standards stories cross our awareness like a ship that first appears small on the horizon, but then gradually looms larger, until it eventually subsides once again into insignificance. This eventual loss of news value is as often due to success (and therefore creeping blandness) as failure (and consequent lack of new material to sustain interest).

Due to this dynamic, the standards “newsscape” may best be visualized as a series of overlapping wave forms, each comprising a related series of events linked by a common theme, conflict or process. At any particular point in time, a given story has variously great or low amplitude, depending at what stage of the news cycle that story then exists.

Viewed from this perspective, 2004 offered a broad range of sagas in all stages of maturity, as well as a number of discrete events of significance. Some stories that were hot in 2003, such as SCO's attack on Linux, gradually sank out of sight as 2004 progressed. Others, such as the ongoing (and classic) standards war over proprietary DVD formats between the Sony-led HD-DVD camp and the Blu-ray Group headed by Toshiba and NEC, continued unabated. At year's end, this conflict was approaching a climactic crescendo as content owners finally began to announce which format they would support in future video releases. And a few new stories of scope and substance emerged as well, such as a burgeoning focus on the standards that will enable the pervasively networked home of the future to become a reality.

Summarizing all of the important information and communications technology (ICT) standards news from an entire year in a single article would, of course, be an impossible task. But sampling some of the most interesting and significant ongoing sagas, happily, is not.

The Top Standards Stories of 2004: The following are those trends and stories that we have found to be most interesting this year, and which we think best exemplify the point in news space where standards setting, business and society intersect (and sometimes collide). In the Trends article that follows ([That Was the Year that Was: A Standards Diary](#)), you may follow how each of them (and more) unfolded, event by event, as the year progressed.

New Consortia: By our count, at least 29 new consortia were formed in 2004, covering a bewildering array of disciplines. The following are a representative sampling of these new groups and their purposes: **Cyber Security Industry Alliance** (lobby national and state governments to optimize legislation relating to ICT security issues); **Enterprise Grid Alliance** (develop royalty-free enterprise grid computing standards); **Network Centric Operations Industry Consortium** (compile a suite of standards enabling a “network centric,” interoperable defense and security environment for the U.S. and its allies), and **Trusted Electronic Communications Forum** (develop standards to combat identity fraud).

And in a novel twist, a **new consortium was spun out of IBM** – based upon a processor that had been the **subject of another consortium** more than ten years ago. That processor is the **PowerPC**, which had been jointly supported at one time by the briefly allied triumvirate of **IBM, Apple and Motorola** early in the 1990s. As part of this alliance, IBM formed the **PowerOpen Consortium** in an effort to establish PowerPC architecture (and displace Windows) on the desktop. That effort foundered when the business strategies of the three companies diverged, and the PowerPC processor became more common in embedded applications than on the desktop.

Now, IBM has spun out a new organization, called **Power.org**, which will serve to open up the Power processor architecture.

To see all stories and press releases on new consortia formed this year, see: www.consortiuminfo.org/news/nc.php

Intellectual Property: In the patent litigation department, the victories (first) and defeats (later) of **Eolas Technologies** against **Microsoft** provided an reminder throughout the year of how high intellectual property stakes can be, not only for vendors, but for everyone who depends on their products of those products must be withdrawn or redesigned. In January, Microsoft suffered a setback when a Federal court upheld the \$521 million dollar penalty awarded by a jury the preceding year. But with a little help from unlikely friend **Tim Berners-Lee**, who sent an open letter on behalf of the W3C to the United States Patent and Trade Office (PTO), the tide began to turn. In February, the PTO agreed to reexamine whether the Eolas patent should ever have been issued. By August, the PTO in fact rescinded the patent.

On the flip side of the Microsoft coin, some became uneasy when Microsoft Chairman **Bill Gates** announced in July that Microsoft had dramatically increased its focus on **patenting new technology**, especially since some believed that elements of that technology, in fact, were old technology (or, in patent terms, had been “anticipated by prior art”). Specific alarums were sounded in relation to **Internet protocols and XML**, and an ongoing spat over **licensing terms** broke out when the **IETF** began to consider an anti-spoofing submission called **Sender ID**, part of which involved code that Microsoft offered under terms that the open source community found to be inconsistent with open source principles, and therefore unacceptable. In September, **multiple open source groups lodged protests** with the IETF, which eventually terminated consideration of the submission. As the year progressed, Microsoft relented on some of these terms, and **AOL** (which had earlier withdrawn support for Sender ID) announced in October that it would support a modified version of Sender ID after all.

And finally, on a note of perhaps dubious pride, the **European Telecommunications Standards Institute (ETSI)** announced in September that its **on-line database of patent assertions** now listed more than **12,500 patents** and patent applications that were alleged by their owners to be infringed by ETSI standards – and would therefore require a valid license.

For all intellectual property news items we selected this year, see: www.consortiuminfo.org/news/ip.php

Web Services: The steady march of Web services standards, driven primarily by the **Microsoft/IBM/BEA Systems** troika, was another big story from 2003 that continued unabated in 2004 as the **Web services “roadmap”** continued to be filled in with actual specifications. With the conclusion of open hostilities between **Microsoft** and **Sun Microsystems** in April (and the agreement by the former to pay the latter almost **\$2 billion in a legal settlement**), Sun became a new member of the cadre of companies from which the Big Three drew supporters for one new proposed specification after another.

As the specification count continued to rise, some analysts (such as the **Yankee Group**) began to see evidence of **increased adoption of Web services** by corporate users, while others **decried the ongoing staccato issuance** of more and more specifications (viz., **Gartner Group’s lament** that “yet another standard definition” had been proposed by Microsoft, et al. that would overlap with specification work already underway in OASIS).

For all “Story Updates” items we selected this year, including those on Web Services, see: www.consortiuminfo.org/news/su.php

Open Source: The open source world was dominated by patent jousting, releases of new versions of successful open source software, a determined push into the open source space by some of the largest commercial IT vendors (with one predictable exception), and ongoing adoption by customers, especially in the government market.

In the open source **intellectual property** arena, **SCO Group CEO Darl McBride** dropped off the front pages, while Linux champions and detractors continued to react or exploit (respectively) the already-roiled Linux waters. In the former category, **Novell** announced that it would use its patent portfolio to

defend users of its open source products, while **Microsoft** (obviously in the latter camp) announced that it would extend its patent infringement indemnification program to small customers as well as large.

On the **open source software product front**, the continuing progress of **Linux** at home, abroad and in forms optimized for business users (often supported by newly announced consortia) marched to a steady drumbeat that never flagged. And new versions of the open source based, venerable **Mozilla Web browser** were receiving accolades by the end of the year, with some predicting that the browser chasm might someday be crossed from early adopters to mainstream corporate IT departments.

In other litigation news, a Munich, Germany court held a developer liable for violating the terms of the **GNU General Public License (GPL)**, in the first known reported legal case to consider the enforceability of the GPL.

On the corporate support front, **IBM** assisted in the formation of the **Eclipse Foundation** as an independent entity, and industry-supported **Open Source Development Labs (OSDL)** announced that **Carrier Grade Linux** was nearing completion. And even **Microsoft** flirted with open source, releasing **Windows Installer XML** in open source.

For all open source news items we selected this year, see: www.consortiuminfo.org/news/os.php

International: Although United States Secretary of Commerce **Don Evans** released a major report intended to **combat the inappropriate use of standards** to erect trade barriers, the biggest standards story on the international scene was the **emergence of China** as a determined player in the standards world.

The stakes are high for both east and west, as China increasingly represents not only the workshop of the western world, but also an enormous potential market for the products of companies worldwide. At the same time, companies in countries other than China own most of the patents on standards-based technology products. Exacerbating this imbalance is the fact that many of these companies share cross-licensing arrangements that limit, or even eliminate, the payment of royalties between these companies when they manufacture (or subcontract the manufacture of) standardized products. The result is that a Chinese company that wishes to manufacture the same goods on its own account may find that it owes royalties that exceed its profit margin.

The principal standards-based spat reached its highest pitch in the spring, as a Chinese government deadline approached after which only the sale in China of wireless computers that utilize the WLAN Authentication and Privacy Infrastructure, or **WAPI**, would be permitted (and not those that employ the **analogous IEEE 802.11 Wi-Fi standard**). Not coincidentally, the WAPI standard was developed by the Standardization Administration of China (SAC). And to make matters worse, the Chinese government would only license a limited number of domestic manufacturers to implement the WAPI standard. Eventually, **China blinked** – but only after intervention at the highest levels of United States government.

Following this face off, China agreed to participate in further international development efforts in the area of Wi-Fi – but also made clear its determination to be a player in international standards development. Or, in the words of a Deloitte Research study, China will seek to “break the hold of developed economies on standards.”

For more on this story, see: [Breaking Down Trade Barriers: Avoiding the China Syndrome](#)

Security: As was the case in 2003, standard setting for all types of security applications proliferated with gusto. Important work in the area of emergency response was completed and adopted in many areas by a broad range of organizations, from the **United States Department of Homeland Security** (which adopted five American National Standards describing **first responder protective equipment**) to **OASIS** (which approved a format for exchanging **emergency alerts**).

Government drove many other types of security standards as well. In March, the deadline finally came due for **United States Department of Defense** contractors to adopt **public-key infrastructure (PKI) encryption**, and in August, **President Bush** issued a directive calling for the development and

implementation of a **government-wide ID badge**, based on cryptographic, biometric and card reader specifications.

But in 2004 a great deal of standards activity also focused on issues such as **spam, spoofing and other forms of fraud and identity effect**. A veritable algal bloom of new consortia was announced in a brief space of time to address these concerns, including the **Cyber Security Industry Alliance**, the **Trusted Electronics Communications Forum**, and the **Anti-Phishing Working Group**, among others.

For more on end-user security standards, see: [Consortia, Standards and the User Experience](#)

RFID and Wireless: As we predicted last year, all things wireless, for deployment anywhere and everywhere, continued to be in the news. Work on a **broad range of new wireless standards** was announced for operation at ranges that varied from a few centimeters (such as those being created by the new **Near Field Communications Forum**) to several miles (such as the **Wi-Max** standard under development at long-time participant **IEEE**), and at an equally broad range of data transmission rates.

The uses for standards-based wireless technologies also continued to expand, as the **United States Food and Drug Administration** approved the **subcutaneous use of RFID tags** in patients, and more and more wireless applications were contemplated for consumer use, bringing, for the first time, the **pervasively networked home** into realistic contemplation. Meanwhile, the **IEEE**, bent on releasing a seemingly endless series of wireless applications without ever using a new base number, announced work on **802.22**, a new standard intended to utilize **unused television spectrum channels** to provide **broadband applications and services**. And, lest wireless services not be optimized for every usage scenario, the **German Research Ministry** agreed to help fund a project to optimize wireless LAN technology for **car-to-car communication**.

Still, not everything was well in the wireless space, as **EPCGlobal** found itself embroiled in a difficult internal division over whether or not it could maintain a **royalty-free patent policy**. And both the **Wi-Fi Alliance** and the **ZigBee Alliance** found it necessary to speak out against vendors bent on releasing products based upon standards that were not yet finalized, raising the certainty of market confusion, lack of interoperability, and (inevitably) unhappy end-users.

For all "Story Updates" items we selected this year, including wireless and RFID stories, see: www.consortiuminfo.org/news/su.php

Who Was Doing What to Whom: Of course, the usual amount of jostling was present in standard setting this year as in any other, both among companies as well as between standard setting organizations. In the **syndication space**, a new **blogging standard** called **Atom** challenged **RSS**, and both companies as well as consortia joined in the fun. **Google**, for example, opted early in the year to support Atom, while the **W3C** made a play for further Atom development activities to take place under its virtual roof rather than that of the **IETF**.

End running existing processes was also a popular sport in 2004, as **Nokia and STMicroelectronics**, for example, decided to bypass a slow-moving process in the Mobile Interface Processor Interface (MIPI) Group and announce their own camera phone feature specification. On a more sanctioned plane, rival proposals also flourished within various standard setting organizations, such as the **IEEE**, whose "**next generation Wi-Fi**" **802.11n** development process spawned two rival camps, one styling itself as **the WWISE Consortium**.

But without doubt, the **premier standards battle of the year** was the ongoing battle that continued to rage throughout the year between the **HD DVD camp** and the **Blu-ray Group**. As was the case in the **VHS/Betamax** struggle between many of the same companies decades before, the prize in this battle is the dramatically increased value that the patents underlying the winning format for the next generation of consumer video players will hold for their owners.

In the early stages of this battle, the struggle was to convince other device vendors to join one camp or another. But as each side approaches the commercial launch of actual products (the first video players based on the new formats are expected to ship 2005), the action shifted to the owners of the content that

will be sold on the new generation of DVDs. Ultimately, it is this group of companies that will decide whether or not they will invest in the transfer of content on to DVDs of one format, the other, or both.

As this end game began to unfold, the major content owners began to announce their decisions. Throughout the second half of the year, the apparent advantage passed back and forth in most dramatically when Blu-ray leader Sony announced that it would be the majority purchaser of **Metro-Goldwyn-Mayer**, and its vast library of films. As of this writing, the HD-DVD camp has won commitments from **Twentieth Century Fox, Paramount Pictures, Universal Pictures, New Line Cinema and Warner Bros. Studios**, among others, while Blu-ray Group supporters include **Disney** and **Buena Vista Home Entertainment** in addition to Metro-Goldwyn-Mayer.

Consumers, as well as video shop owners, will learn next year whether the full debacle of thirty years ago will be repeated, or whether a clear winner will emerge and avoid closets and attics filling up once again with abandoned devices and movies based on the format that ultimately loses the war.

For all news items we selected related to the rough and tumble of standard setting, see: www.consortiuminfo.org/news/wdww.php

Innovation: Innovation was an interesting concept in 2004, as some commentators began to ask whether the **proliferation of XML schema** had gone much too far. But generally, innovation was not only alive and well, but welcomed in the press and the marketplace.

Besides those already mentioned above, there were a variety of new standards efforts launched that were worthy of note for their novelty, importance or (in some cases) peculiarity. **The International Electrotechnical Commission**, for example, began work on compatibility standards to facilitate the use of the new **miniature fuel cells** now nearing commercial availability for use in **cell phones and other hand held devices**. And the **American National Standards Institute (ANSI)** formed a panel to coordinate standards development in the burgeoning area of **nanotechnology**.

As interest in the **digital home** increased, a new consortium (naturally) was formed to facilitate the development of standards in this area, called the **Universal Home Application Programmer Interface Forum** (we think that its official acronym (UHAPI) cries out for a terminal question mark).

And in the peculiarity department, perhaps most scratched their heads when they learned on July 30 that **NIST's latest Standard Reference Material** existed in the form of **five bottles of frozen, homogenized trout from Lake Superior**.

Standards and Society: The impact of standards on all aspects of life and commerce was evident in news of every description during the year, from the **testimony** of United States Homeland Security Secretary **Tom Ridge** before the Senate 9-11 Commission that **standards are critically important to emergency preparation and response**, to the announcement by **IEEE** that it had completed a **standard for automobile "black boxes"** with a purpose similar to those carried by commercial aircraft.

Several reports released by NIST also emphasized the **enormous savings** that standards development and adoption can have for diverse businesses. And increasingly, the **life sciences** began to turn to standard setting to facilitate research and "avoid fragmentation" in the area.

Not all might view the impact of standards on society as being an unmitigated blessing, however, as they read that the **Consumer Electronics Association** plans to develop a standard (for better or worse) to permit people to yell into their **cell phones in aircraft**, or that **NIST** had created a performance standard to facilitate the use of improved **"across-the-road" speed trap radar equipment**.

To see all news items we selected this year on the intersection of standards and society, see: www.consortiuminfo.org/news/sitw.php

Events and Honors: The year also saw its share of notable discrete events. For example, **Bluetooth** creator and promoter **Ericsson's** announcement in September that it would **discontinue the**

design and manufacture of devices based on that standard caught many by surprise. The **10th anniversary of the W3C**, in contrast, was an anticipated opportunity for celebration.

Other events recognized not only achievement, but the importance that standards and standard setting organizations play in the modern world. In May, **Software Development Times gave six out of ten awards to consortia and open source projects** in its “Best of the Best” category for those who exercised “the greatest influence in raising the bar”. Well-deserved kudos (and a significant monetary prize) also went to **World Wide Web creator Tim Berners-Lee**, who received the first **Millennium Technology Prize** (and \$1.23 million) from the Finnish Technology Award Foundation.

Summary: And so there you have it – a brief summary of twelve months and hundreds of stories about good work, bad behavior, and even a bit of international intrigue. Find out what 2005 will bring by making a visit to the [ConsortiumInfo.org standards News Portal](http://ConsortiumInfo.org/standards/NewsPortal) a part of your daily routine.

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TRENDS

THAT WAS THE YEAR THAT WAS: A STANDARDS DIARY

2004 witnessed a wide variety of events, large and small, that added up to a year of transition, progress and accomplishment. The following is a selection of events that we think best illustrate the major themes of the year in standards now ending.

The news items listed below represent but a small fraction of the many hundreds of news stories that we selected for posting and categorization this year at the ConsortiumInfo.org Standards News portal www.consortiuminfo.org/news (complete with RSS feed). You may find expanded summaries of each item that appears below at that address, as well as links to the primary sources in every case.

January

5: The open source community is not amused when SCO Group CEO Darl McBride claims that the GNU General Public License (used for Linux and many other open source products) violates the U.S. Constitution, copyright and patent laws.

12: The RFID Journal predicts that the retail supply chain market for RFID technology will grow to \$1.3 billion in 2008, and then decline, before again picking up speed.

13: A federal judge upholds a \$521 million jury verdict in favor of tiny Eolas Technologies over Microsoft Corp. The verdict relates to a patent Eolas claims is infringed by a key Web browser function.

16: The Mozilla Foundation releases a new version of its open-source Web-browser suite. The new browser later gains favorable reviews and rapid adoption.

29: Microsoft, counting on better luck in an upcoming review of the Eolas patent by the United States Patent and Trademark Office, announces that it will not modify Internet Explorer to avoid patent infringement.

February

3: In order to appear more independent, Eclipse, an open source project founded and funded by IBM, announces that it will become an independent not for profit entity to be called the Eclipse Foundation.

3: Microsoft is awarded United States patent 6,687,897 for "XML script automation."

10: The World Wide Web Consortium announces the approval of the first two components of its much heralded "Semantic Web": a revised Resource Description Framework (RDF) and the Web Ontology Language (OWL).

11: Google announces that it will support Atom, and not the older RSS syndication format, for bloggers.

25: 12 of the most prominent IT security companies launch The Cyber Security Industry Alliance (CSIA) in order to lobby Congress and state governments for more effective cyber security legislation.

25: A federal patent examiner agrees that the Eolas patent should be reexamined, following the W3C's request that the patent be declared invalid.

26: The U.S. Department of Homeland Security announces adoption of five American National Standards describing personal protective equipment for first responders.

26: OASIS Emergency Management Technical Committee approves the Common Alerting Protocol Version 1.0, "a simple but general format for exchanging all-hazard emergency alerts and public warnings over all kinds of networks."

March

18: Nokia, Phillips, and Sony announce the formation of the Near Field Communication (NFC) Forum. The new consortium will create "touch-based" wireless "interactions" between consumer electronics, mobile devices, PCs and "smart objects."

18: The Wi-Fi Alliance reports that 22 percent of wireless networking cards for computers, access ports and printer servers tested at its four partner laboratories failed to work on a network on the first try.

19: Global standards body ISO approves a suite of four ebXML OASIS Standards that enable enterprises in any industry anywhere in the world to conduct business over the Internet (OASIS is a consortium, and not an accredited SDO).

31: Microsoft, IBM, BEA Systems Inc. (and SAP AG) announce the publication of the WS-Metadata Exchange specification, one of a seemingly endless series of privately created specifications intended to realize the Web services architecture to which the three companies are committed.

April

1: Deadline for vendors to register for public-key infrastructure encryption certificates to do business with the Defense Department under the Interim External Certification Authority program. The requirement affects approximately 350,000 contractors.

5: In a reversal of its long-standing opposition to open source licensing, Microsoft publishes the code for Windows Installer XML (WiX) on an open source software development Web site.

5: Sun and Microsoft patent infringement settlement announced, with Microsoft agreeing to pay Sun almost \$2 billion. Scott McNealy of Sun promises closer cooperation between the two companies on standards matters.

14: A Munich, Germany district court grants a preliminary injunction against a wireless access router vendor for violating the GNU General Public License (GPL).

15: World Wide Web inventor Tim Berners-Lee is the first winner of the one million Euro (\$1.23 million) Millennium Technology Prize, awarded by the Finnish Technology Award Foundation.

19: Open Source Risk Management LLC, a venture backed start-up company formed to offer insurance against copyright claims involving open source software, declares the Linux kernel free of copyright infringement.

20: More than 20 companies announce the formation of the Enterprise Grid Alliance (EGA) to develop royalty-free enterprise grid computing specifications and grid interoperability solutions.

May

3: The Electronic Frontier Foundation launches a "Patent Busting Project" to contest what it believes are "illegitimate patents that suppress non-commercial and small business innovation or limit free expression online."

5: Rambus files an antitrust lawsuit against Siemens, Micron Technology, Hynix Semiconductor and Infineon Technologies.

13: FTC issues an order accepting four amicus curiae briefs filed in connection with its own action against Rambus. The order also notes that the record under examination now includes hundreds of thousands of pages of exhibits, trial transcripts, proposed findings of fact and reply findings of fact, post-trial briefs and reply briefs, decisions, and appellate and Amicus briefs.

14: The W3C invites Atom supporters to form a working group under its process rather than within the Internet Engineering Task Force (IETF).

15: In its annual "Best of the Best" issue, *Software Development Times* includes 6 consortia and open source collaboratives in its top ten list of those that had the "greatest influence in raising the bar." Those groups are: OASIS, W3C, Apache Software Foundation, Eclipse Foundation, Open Source development Labs, Inc., and the Web Services Interoperability Organization (WS-I).

17: An ITU survey indicates "overwhelming support" for declaring the Internet a "resource to be shared by all for the global public good." The survey relates to the ongoing United Nations-initiated Summit on the Information Society (WSIS), which will make recommendations involving the "governance of the Internet."

18: Yahoo proposes an anti-spam specification it calls "DomainKeys," which would embed outgoing messages with an encrypted digital signature, matched to a signature on the server computer that sends the message, allowing ISPs to block those that don't match up.

18: The EU votes to rescind 2003 European Parliament-imposed limitations on the patentability of software. The revised directive is sent back to the European Parliament for further action.

18: United States Secretary of Commerce Don Evans releases a report intended to reduce standards-related trade barriers and calling for "broader collaboration across government and with U.S. industry to prevent technical obstacles that impede U.S. exports".

19: Homeland Security Secretary Tom Ridge emphasizes the importance of standards in achieving emergency preparedness and crisis response before the 9-11 Commission.

31: Microsoft Explorer rivals Mozilla Foundation and Opera Software submit a joint recommendation to the W3C on standards for Web Applications and Compound Documents.

June

7: The formation of the Compliance Consortium is announced, with the goal of developing standards and promoting best practices in governance, risk and compliance management in response to legislation such as Sarbanes-Oxley, the USA Patriot Act, and Basel II.

11: The DVD Forum approves the latest version of its high definition DVD specification. The HD-DVD specification is locked in a struggle with the rival standard being developed by the Blu-ray Group. The DVD Forum is led by NEC and Toshiba.

11: Release of ANSI white paper highlighting the use of restrictive intellectual property rights policies to erect trade barriers.

14: Sun, Dell, Intel and others launch the OpenIB Alliance, intended to make the InfiniBand input/output architecture more Linux-friendly.

16: The formation of the Trusted Electronic Communications Forum is announced, with the goal of setting standards to combat phishing, spoofing and other types of online identity fraud.

18: Open Source Development Labs announces that its Carrier Grade Linux working group is close to completing a Linux standard that will meet telecommunications industry requirements.

July

1: Nokia and STMicroelectronics bypass a slow-moving initiative within the Mobile Industry Processor Interface (MIPI) group, and announce their own specification to define camera phone features.

2: The Consumer Electronics Association announces that it will develop a standard to help make safe use of cell phones on aircraft possible.

2: A NIST study finds that inventory, scheduling and accounting information management issues cost the automotive and electronics industries almost \$9 billion annually. A key problem is a "lack of universally accepted and implemented standards for the format and content of messages that flow between supply chain partners."

8: The U.S. and China announce settlement of a dispute over Chinese taxes on semiconductors, four months after the U.S. filed a complaint with the World Trade Organization. The U.S. contended that the taxes favored Chinese manufacturers.

9: ITU WSIS meeting on countering spam closes. The Chair of the meeting states the surprising belief that "We can curb spam within the next two years if we act on a number of fronts simultaneously and make sure that there are no havens for spammers anywhere in the world."

15: NIST researchers announce a performance standard to facilitate use of new "across-the-road" radar speed trap equipment.

20: IEEE begins work on a standard to facilitate broadband-over-power-line (BPL) systems, targeted for completion in mid-2006.

22: The U.S. Food and Drug Administration (FDA) announces the Study Data Tabulation Model (SDTM), developed by the Clinical Data Interchange Standards Consortium, (CDISC), for use in submitting human drug clinical trials data.

27: The U.S. FDA begins final review of subcutaneous human implantation of RFID tags by hospitals for patent identification.

29: Toshiba and others announce that they will begin to sell HD-DVD compliant DVD recorders “next year,” and Japan's largest distributor of DVD movies announces that it will utilize the same format. Microsoft Japan says that Longhorn, its next operation system, will also support the standard.

29: Bill Gates announces that Microsoft will file 3,000 patent applications this year, and will continue to do so at a similar pace in the future.

30: NIST releases Standard Reference Material (SRM) 1946, which is a set of five bottles of frozen, homogenized Lake Superior trout.

August

2: The International Electrotechnical Commission (IEC) announces the formation of a working group to create compatibility standards for micro fuel-cells for use in handheld electronic devices.

2: The Yankee Group reports that Web services adoption is beginning to rise, in part due to strong support from Microsoft and IBM.

3: The US Securities and Exchange Commission (SEC) begins evaluation of accepting voluntary supplemental filings of financial data using the XML-based Extensible Business Reporting Language (XBRL).

4: Sony announces that the next version of its popular games console will adopt the Blu-ray disc format.

4: A Deloitte Research study reports that China will be a key player in shaping global technology standards, and will seek to “break the hold of developed economies on standards.”

4: The Internet Engineering Task Force (IETF) is reported to be ready to nominate anti-spoofing specification Sender ID (including Microsoft's Caller ID) as an Internet standard.

5: ANSI announces formation of a panel to coordinate nanotechnology standards development.

10: The People's Daily reports that a senior government official has denied China wishes to develop an “Asian Linux.”

11: VUNet reports that the Jericho Forum, a group comprising 40 multinational companies, will develop a roadmap telling IT vendors what kind of standards-based IT security systems they want vendors to offer to them. Asks VUNet, “will the Jericho Forum be the first significant manifestation of IT user buying power?”

11: BEA Systems Inc, IBM Corp, Microsoft Corp, SAP AG, and Sun Microsystems submit WS-Addressing Web services specification to the W3C.

12: A new coalition calling itself the Wise consortium offers a proposal for an 802.11n standard that is intended to enable “next generation” Wi-Fi products that will offer 100 times faster transmission speeds in 2006 or 2007. The proposal competes with an earlier proposal submitted by a group of companies led by Freescale Semiconductor.

18: The U.S. Patent and Trademark Office invalidates the Eolas browser patent.

20: Life sciences researchers agree that “the standards-making process is painful and arduous, but...a standards project could foster efficiency and perhaps even reverse the rapid fragmentation of life sciences.”

24: WS-I, announces publication of its Basic Profile 1.1, Attachments Profile 1.0 and Simple SOAP Binding Profile 1.0 to Final Material status. “Web services are finally growing up,” observes Zap Think analyst Ronald Schmeltzer.

27: President Bush issues a directive calling for a mandatory, government-wide standard for government ID badges. The standard will include cryptographic, biometric and card reader specifications.

27: The Network Centric Operations Industry Consortium is formed by 28 major defense contractors, with the ambitious goal of creating an interoperable ICT environment from the field up through the command chain, and across the defense and security forces of the U.S. and its allies.

30: A study commissioned by NIST reports that inadequate software interoperability in the capital facilities industry cost the commercial, institutional and industrial building sectors \$15.8 billion in lost efficiency in 2002.

September

1: ETSI announces that its on-line database now displays more than 12,500 patents and patent applications identified by their owners as including "essential claims" under ETSI standards.

3: In an open letter to the IETF, the Apache Software Foundation says that it will not support Sender ID under Microsoft's required patent license, saying, "no company should be permitted IP rights over core Internet infrastructure." The letter urges the IETF to "revamp its IPR policies to ensure that the core Internet infrastructure remains unencumbered."

6: The Debian open source operating system project announces that it will not implement Sender ID licensing terms that it says are not compatible with open-source licenses.

6: In a startling move, Bluetooth developer Ericsson announces that it will discontinue Bluetooth design and manufacturing.

7: An article by David Becker on ZDNet, and a growing number of stories by others that follow, begin to ask whether XML dialect proliferation has gone too far. Other's disagree, saying that "the explosion of schemas is a testament to the format's success."

10: The IETF's Mail Transfer Agent Authorization Records in Domain Name System (DNS) working group, also known as MARID, votes to discontinue work on Sender ID.

10: BEA Systems, IBM, Microsoft, SAP AG, and Sun Microsystems submit Web Services Addressing specification to the W3C.

14: IBM announces contribution of speech software to the Eclipse Foundation and the Apache Software Foundation in an effort to "spur the availability of speech-enabled applications."

15: AOL announces that it is abandoning active support for Sender ID.

17: BEA Systems, Computer Associates, Microsoft, Sonic Software, and Sistine release two new Web Services messaging specifications.

19: Sony and partners announce purchase of Metro-Goldwyn-Mayer, giving Sony (and the Blu-ray Group) control over a vast library of films that can be offered on (and not on) whatever DVD format Sony wishes.

20: Information Handling Services, Inc., a major reseller of standards, codes and product specifications, announces acquisition of USA Information Systems, Inc., a competitor.

22: The Free Standards Group (FSG) and Open Source Development Labs (OSDL) announce a collaboration to "accelerate enterprise adoption of the Linux Standards Base."

23: OASIS announces formation of an International Health Continuum Technical Committee as a "forum for companies on the Healthcare continuum internationally to voice their needs and requirements with respect to XML and Web Services."

23: IEEE announces completion of IEEE 1616(TM), a standard for "motor vehicle event data recorders (MVEDR) much like those that monitor crashes on aircraft and trains."

30: The ZigBee Alliance, which develops specifications on top of IEEE 802 standards and certifies wireless products, chastises vendors "guilty of creating "market confusion" in their launch of pre-standard products."

October

3: Twentieth Century Fox Film Corp announces that it will adopt the Blu-ray disc format.

4: InformationWeek reports that IBM has staffed a new unit with "some of its most senior executives" in order to develop a strategy to "more precisely define the role the company will play in an IT market in which big business customers increasingly look to open-source and industry standards-based software to build their next-generation computing networks."

5: Reports reach the press that EPCGlobal, a core RFID standard setting consortium, is mired in an internal dispute over whether it can maintain a royalty free intellectual property rights policy. The dispute delays release of standards in process.

7: The W3C charts a new working group to produce a W3C Recommendation for Web Services Addressing based on the earlier submission by BEA, IBM, Microsoft, SAP AG, and Sun Microsystems.

8: Microsoft and its partners introduce what Gartner Group calls "yet another standard definition for management that will overlap with Hewlett-Packard's and IBM's work with OASIS."

11: Wi-Fi Alliance announces that it will not certify IEEE 802.11n-based products until the standard is ratified.

12: Novell announces that it will use its patent portfolio to protect its open-source software offerings.

12: IEEE announces a working group to develop a standard to tap open channels in the television spectrum for wireless broadband applications and services, to be called 802.22.

13: In an article in InfoWorld, Paul Krill says, "Once again, I have to ask, does the world need anymore Web services standards? Aren't there too many already?"

19: ChinaDaily.com reports that "Chinese companies are being urged to play a greater role in drafting standards for radio-tag technology."

25: After concessions by Microsoft on licensing terms, AOL announces that it will support a new version of Sender ID that is to be submitted to the IETF.

November

1: Samsung, Philips and other companies launch the Universal Home Application Programmer Interface (UHAPI) Forum to develop standard hardware-independent application programming interfaces (APIs) for next-generation analog and digital consumer audio, video and home server devices.

5: Concerns are voiced that Microsoft may be asserting patent rights involving vital Internet protocols.

8: OASIS announces approval of Universal Business Language (UBL) Version 1.0 as an OASIS Standard. UBL defines a common XML library of royalty-free business documents.

9: Announcement of formation of The Applications Security Consortium, which will seek to establish "minimum criteria" for protecting Web-based applications.

9: In a move to differentiate its operating system products from Linux, Microsoft Corp. announces that its small as well as its large customers will be protected under its intellectual property (IP) protection policy.

10: Cisco, HP, Microsoft and Intel announce the formation of a working group to develop integrated implementation plans under the new Electronics Industry Code of Conduct (EICC), which was created to establish and promote unified industry expectations for socially responsible practices across the electronics industry's global supply chain.

12: Ferret.com.au reports that "an Ultrawideband (UWB) vendor group has bypassed a standards-setting quagmire and struck out in its own, confirming what has been lately increasingly evident: that there will now not be a universal UWB standard." The two factions are the Multi-Band OFDM Alliance (MBOA), with Intel and Texas Instruments as important members, and the UWB Forum, which includes Motorola and XtremeSpectrum.

15: OASIS ratifies Web Services-Reliability version 1.1

29: The formation of a patent pool is announced in relation to standards to be created by Near Field Communication Forum (NFC). NFC standards enable information transfers between devices such as cell phones and other devices.

30: The Formation of UK-based Open Source Consortium is announced, with 60 member companies representing 400 open source software specialists. The new group will represent the open source business community, and seek to establish a quality standard certification based on a framework for self-assessment and performance improvement.

30: CompTIA and AIM Global announce that they will jointly develop a certification program for RFID technology. The certification initiative will help address an industry-wide shortage of professionals knowledgeable about RFID technology.

December

1: W3C celebrates its 10th anniversary with an extravaganza held at Boston's Fairmont Copley Plaza hotel.

2: In a move to open up its Power microprocessor architecture, IBM announces formation of Power.org, consortium to support further development of Power processors (ten years earlier, the same architecture was promoted by the PowerOpen Consortium).

3: Paramount Pictures, Universal Pictures, New Line Cinema and Warner Bros. Studios announce support for HD-DVD disc format.

6: In response to an article in ComputerWire, OASIS says that BPMI.org's plan to develop BPXL is complementary to its BPEL standard rather than competitive. BPMI.org says that BPXL will enable interoperability between process modeling tools and process management engines.

7: Formation of Nanoprint Lithography Consortium (NILCom) announced, to facilitate commercialization of nanoimprint lithography (NIL) technologies in the semiconductor industry, an alternative method permitted under the most recent update of the International Technology Roadmap for Semiconductors.

8: Disney and Buena Vista Home Entertainment, its home-video division, announce that they will release movies on the Blu-ray format in North America and Japan.

8: The EU Council announces that it will postpone its decision to make software patentable--a possible sign of mounting political pressure against the decision.

13: The formation of the iWARP Consortium is announced, with the goal of refining new and interoperable remote data memory access (RDMA)-over-Ethernet products.

14: The formation of the Calendaring and Scheduling Consortium is announced, with the goal of achieving interoperability of calendaring and scheduling.

15: The W3C announces the publication of Architecture of the World Wide Web, Volume One as a W3C Recommendation. The document "emphasizes what characteristics of the Web must be preserved when inventing new technology, [taking] notice where the current systems don't work well, and as a result show weakness."

15: The Government Electronics and Information Technology Association (GEIA) announces that it will help develop a Border and Transportation (BTS) Security Data Exchange standard in collaboration with the Homeland Security Department's Science and Technology Directorate. The new standard will enable border and transportation agents to access and share threat-related information.

15: IDC forecasts that Linux PC sales will reach 17 million Linux PCs in 2008, and that Linux will be used on 7 percent of all desktops in that year.

20: A panel of distinguished scholars names The International Telecommunications Union (ITU), founded in 1865, as "one of the world's top ten most enduring institutions", sharing the honor with the United States Constitution.

20: Germany's research ministry announces that it will help fund a three-year research project aimed at developing a car-to-car communications system based on wireless LAN (WLAN) technology.

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AWARDS

STANDARDS NEWS SOURCES OF THE YEAR

Introduction: To state the obvious, standards news reportage does not receive the type of attention and awards that movies and Broadway shows (or even advertisements) attract. While the American National Standards Institute (ANSI) annually bestows its President's Award for Journalism to an individual reporter, we are aware of no official recognition given to those standards organizations that release the most noteworthy news, or the media that provide the most thorough and discriminating specific coverage of the standards world.

In order to give credit where credit is due, we therefore recognize in this issue those news sources that we found to be particularly significant this year. That credit is based upon an actual count (by source) of those news items we found to be sufficiently interesting and important to share at the Standards News Portal during the eight months ending November 30, 2004.

Sample Set: During the measuring period, we included news from 149 different sources, gleaned from thousands of nominally qualified items represented by press releases and the harvest of several tailored Google News searches that we conduct on a daily basis. Out of many possible sources, we posted news during the measurement period from a total of 46 standard setting organizations and 103 on-line media sources, including other news portals, on-line journals, and on-line versions of magazines and newspapers.

Selection Criteria: In order to be chosen for posting at our news portal, a news item must fall into one of the fifteen categories of news we cover at our portal (e.g., New Standards, Open Source, New Consortia, and so on), or otherwise be interesting and noteworthy enough to merit inclusion under the sixteenth category (Miscellaneous). In a few categories (e.g., New Consortia) inclusion is automatic, while in most others, it is also necessary to have additional qualities that we believe make it not only newsworthy, but interesting as well.

What makes a standards story interesting (at least to us)? Several attributes can help a story make the grade:

- Does it relate to how we live, work or transact business?
- Does it illustrate the importance of standards to society?
- Does it help a reader understand what standards are all about?
- Will the standard or event in question have a major impact beyond purely technical ramifications?

Our particular thanks go to the media that have chosen to give the world of standards the attention that we think it deserves (please keep up the good work).

Most Newsworthy Standard Setting Organization (Consortium or SDO)

The following awards do not indicate what standards organization was most prolific in generating new (or amended) standards, but rather which ones announced the most significant new standards, initiatives or other news in the Information and Communications Technology space.

- **First Place:** *Telecommunications Industry Association (TIA)* www.tiaonline.org: 16 Items
- **Second Place:** *World Wide Web Consortium (W3C)* www.w3.org: 13 Items
- **Third Place:** *Organization for the Advancement of Structured Information Systems (OASIS)* www.oasis-open.org/home/index.php: 9 Items*

Best On-Line Coverage of ICT Standards by the Media

We posted no items that are purely technical in nature, due to the selection criteria noted above. As a result, those media that we found to be most worthwhile in their coverage instead focused on the societal, strategic or business significance of the standards world, and presented the news that clearly and perceptively.

- **First Place (tie): *The Cover Pages*** <http://xml.coverpages.org> and ***InfoWorld*** www.infoworld.com: 27 Items Each
- **Second Place: *CNET News.com*** <http://news.com.com>: 17 Items
- **Third Place: *eWeek*** www.eweek.com: 14 Items

*Disclosure: OASIS is a client of the author and of the sponsor of this site.

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From the Standards Blog

□ □ December 22, 2004

#23 Railroads, Standards, Lock Ins and Conventions

“Lock In” is a concept that is well known to students of standards. Simply stated, it’s the phenomenon of being trapped by success. Less cryptically, it’s what exists from the time that a new standard becomes successful until the limitations of the same standard are found to outweigh the costs and inconveniences of replacing it with something better.

The evolution of conventions, on the other hand, is simply a manifestation of habit. But because the perpetuation of conventions often also results from a lack of vision, it’s sometimes easy to confuse convention and inertia with standards and lock in.

One counterintuitive difference between lock in and convention is that lock in (which is the result of real constraints) is often creatively addressed, while conventional conduct (which is elective) continues unchanged, even though the same conduct is neither mandatory nor often ideal.

For example, various strategies are used to maintain the benefits of standards while minimizing the constraints that the same standards otherwise impose. In the case of Windows (a “de facto”, proprietary operating system standard), maintaining “backwards compatibility” is a high priority in order not to lose the benefits of interoperability, even as the technology itself changes. Microsoft’s corporate commitment to such backwards compatibility reassures customers, making them more willing to buy the software vendor’s products, because they know that Microsoft will ensure that older computers can continue to be used in conjunction with newer ones, and that files and data can easily be moved from one version of a Windows operating system to another one when the customer eventually decides to upgrade.

But maintaining backwards compatibility has its own constraints and costs for vendors, even though customers may be unaware of this fact. For example, when radical improvements in software design become possible, the need to maintain backwards compatibility may prevent a vendor from taking advantage of those advantages. In some cases, this may provide a market opening for a new technology to establish a beachhead, much as a lean and targeted upstart airline with low overhead can discount its fares and seize routes from a large, traditional carrier burdened by an expensive, unionized labor force and a business model that depends on less productive “feeder” routes to keep the planes on its main routes full.

The phenomenon of lock in is as old as standards themselves. For example, one of the earliest standards of the industrial age is still in force and unchanged today: railway gauges. It's worth taking a moment to trace the history of that standard, to illustrate both the constraints as well as the benefits of being locked into a single standard through the entire lifetime of a technology, and even the extension of those constraints into other allied domains besides.

In the beginning of the railway age, engines were built by multiple shops, and railway lines were of limited length. Consequently, the distance between rails could be set at whatever arbitrary distance pleased the founder of a new railway company. Once railway lines became long enough to permit them to connect, however, it became imperative for all to agree on a standard distance between the rails, so that the rolling stock of one railway line could in fact roll without conversion onto the rails of its neighbor.

Of course, once that gauge was agreed upon (along with its load bearing capacity and various other features), that standard was indeed locked in for good. Within a comparatively short period of time, virtually all railways that linked into any growing national railway network were utilizing the same gauge (so-called "narrow gauge" railways also continued to exist to fill solely local needs; the popular Durango to Silverton tourist line in Colorado is a rare surviving example of such a railway).

Over time, other aspects of cargo carriage also became "locked in" by the original decisions made by railway engineers. The length and width of railway cars today are what they are in part as a result of stability factors arising from the already-fixed rail gauge. Looking further afield, enter any warehouse and you will see pallets of a standard size, optimized to fit inside railway cars. Head out to sea, and there you will find that the containers carried by cargo ships are built to fit on railway cars. And it's no coincidence that those same cargo containers can be easily transported by tractor trailers, whose flat beds can be appropriately sized to the task.

One reason that lock in is so powerful with respect to interoperability standards like these is due to what economists call the "network effect". What they mean by this phrase is that the more nodes there are to a network based upon a common standard, the more valuable that network becomes to all of those that use it. For example, if you can load a cargo container, and then place that same container first on a truck, and then a ship, and then onto a railway, and eventually deliver it to its final destination on yet another truck, all without ever having to empty it, then everyone from the original vendor, through each carrier, and then finally the customer that pays the freight, will benefit.

Similarly, if a bank joins a network of ATMs that numbers in the thousands nationwide, that bank will be more attractive than a competitor (all other things being equal) whose customers can only use its proprietary, local ATMs. So, also, with telephone networks (and cell phones, as Americans traveling to Europe have learned to their disappointment).

Of course, once the network effect kicks in, the costs and inconvenience of shifting to a new standard become formidable indeed. Still, at least lock in has the virtue of serving the purpose for which the standard to which it relates was originally intended to address. A railway car today still carries cargo or passengers, the same now as when the Tom Thumb first rolled on the primitive wooden rails.

Non-physical standards, in contrast, can travel very strange roads indeed.

To find an example, let's go back to the early days of the canal systems that preceded the railways. One of the primary enablers of the rapid creation of this system was the (then) recent development of what some have called the greatest innovation in business history – the "joint stock corporation." While this innovation may be traced to an earlier date, it first became widely implemented in England in the 18th century. Its most revolutionary feature was its ability to permit the pooling of capital without the imposition of any risk on investors other than the loss of that capital.

Using this new technique of financing, England soon became interconnected by a vast web of freight and passenger carrying canals, each one launched by a group of entrepreneurs, financed by avid shareholders, most or all of whom were often local. In the years to come in the New World as well as the Old, railways, mines and other commercial ventures benefited from vast infusions of cash, all concentrated through the use of this new and innovative capital aggregation technique.

In the beginning, the relation between a stockholder and a corporation was fairly direct. Successful corporations distributed profits (in the form of dividends) much as they would in a traditional family owned business. And trading in the stock issued might be extremely limited.

Eventually, of course, everything changed. Consider, for example, a share of AOL stock issued in 1992. That share has now been circulating for over 12 years, without a dividend ever being paid to any of the holders of that share, or a benefit being reaped by its issuer after the net issue price was paid to AOL by the underwriter.

Instead, that share of AOL stock became a legally saleable poker chip that can be traded by anyone anywhere in the world on NASDAQ, the largest purely speculative casino in existence. Why a casino? Because very few companies listed on that index pay dividends, and few shareholders vote their shares with conviction, if they vote them at all. What's left is just the hope of appreciation, and the risk of depreciation. In other words, a bet.

As a result, even corporate strategies intended to maximize profits have nothing to do with distributions to a company's nominal owners, but everything to do with driving the value of the underlying security upwards. In non-dividend paying companies, profits therefore become an abstraction, rather than a legitimate end unto themselves. When announced at the end of a quarter, the existence and magnitude of a company's profit margin is less significant to an "owner" (at least in the short term) than is how it compared to the performance of its competitors, and whether or not that margin exceeded or lagged the expectations of analysts.

In short, a stockholder of most shares today no longer really has any reason to think like an owner at all. When such a stockholder is thinking most rationally, he is instead trying to act as a skillful gambler, counting the cards and watching every sign that may give a reliable clue on when to hold, and when to fold. If smoke can drive the price of a stock as high as substance, then there is no real difference to the shareholder, so long as she is savvy enough to sell before the smoke clears.

At this point, let us return to the distinction between a standard and a convention. Is the venerable joint stock company more like a business standard, whose limitations have been creatively mitigated through evolution, or merely a convention gone adrift?

One could easily make the case that the continuing issuance of common stock as the "standard" method of capital formation in public markets is not only a convention that could be abandoned without concern, but that there is little lock in to impede experimentation with more useful and novel approaches. The comparative success of the recent Google public stock auction is one indication that this is so.

Another way to test the hypothesis in the breach would be to formerly abandon the traditional concept of stock as an ownership interest entirely, and to make the most of corporate shares as the poker chips that (in large part) they have already functionally become.

For example, why should a corporation continue to work hard to benefit shareholders that hold shares that were issued decades, or even a century ago, especially where these same shareholders have contributed nothing to the current growth potential of the business? Why not instead charge a transfer fee every time a share changes hands, so that "the House" makes something every time someone new takes a stockholder's place at the blackjack table? And if buying and selling stock truly is a gamblers game and management always wins the votes, why bother with the charade of stockholder voting at all?

One could easily imagine creating a whole new system entirely, given a clean sheet of paper.

For example: A corporation could have two classes of stock – a voting, preferred class that represents a true ownership interest, and a non-voting common stock (with a transfer fee) that not only does not represent ownership, but is optimized to fluctuate in price, the better to attract the gamblers. The same SEC regulations, of course, could still control the disclosure and dissemination of corporate information and the trading of shares.

Ridiculous, you say, and you'd put money on it – we're dealing with a business standard here, and not a convention.

Well, maybe yes, but more likely no. One can think of other supposed “standards” that turned out to be conventions rather than standards, and that were subject to less lock in than anyone would have expected.

Such a revolutionary new regime has already been introduced in the world of software “ownership” and licensing. It’s called open source Linux.

Still want to place that bet? I'll give you good odds.

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Useful (?) Links and Information:

For a brief but informative history of how railway gauges ended up where they did and an interesting analysis of whether it would have made any difference if a different gauge had been used (not to mention a similar history of model train gauges), see:

“Standard Gauge” (Wikipedia: November 22, 2004 [most recent edit])
<http://infoblue mountains.net.au/rail/horse-ass.htm>

For an alternative (and dubious) theory on the origin of railway gauges (and shuttle boosters), see:
Origin of Standard Gauge (Info Blue Mountains Railway Pages: undated)
<http://infoblue mountains.net.au/rail/horse-ass.htm>

Views (pro and con) on the origins and future of the corporation:

Brown, Bruce. The History of the Corporation, Vol. 1, (BF Communications/Astonisher.com: 2003).
[Sample quote: “God, demon, servant, master, parasite or provider -- what exactly is the corporation?”]
www.astonisher.com/archives/corporation_intro.html#introduction

Hay, Donald. “The Joint Stock-Company: Blessing or Curse?” (1990) (unpublished)
www.gordon.edu/ace/pdf/Hay_JointStockCo.pdf

Novak, Michael. “The Future of the Corporation” (The AEI Press: Washington, D.C. 1990).
www.aei.org/docLib/20021130_70809.pdf

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