

EDITORIAL

A LOOK INTO THE FUTURE: NOT STANDARDS, BUT "COMMONALITIES"

Andrew Updegrove

Abstract: *Those involved in standard setting often think of standards as ends, rather than means. In fact, while standards are useful, they are not the only tools that may achieve ends traditionally solved with standards, or for achieving new challenges for which there are not historical solutions. As the advent of open source helps us understand, it is important to be open to conceiving other new tools that may be appropriate or necessary to meet new challenges. In this article, the author proposes the concept of "commonalities," which he defines as "whatever tool(s) we need; that we need to agree on; in order to do what we agree needs to be done." This is a more useful construct within which such solutions for the challenges of the future might best be determined.*

This article focuses on that most fascinating (and sometimes worrisome) of all places: the future. More specifically, what the future holds for standards and standard setting.

There was a time when standard setting was a pretty relaxed activity. In most non-technology areas it still is. I'm just back from giving the keynote address at a standards conference. The Executive Director of a smokestack industry standards organization was complaining that ANSI accreditation rules were forcing his members to work faster than they thought was necessary.

But in the world of ICT standards, where I spend most of my time, the pace continues to quicken, driven by the need to create standards in a useful time frame. The challenge of keeping up with the pace of technical innovation has been much discussed for at least 20 years. But what about the ways that standards are created? Are the old methods up to the new demands of the 21st century?

In fact, the very concept of a "standard" may be becoming outdated, or at least too limiting. Recent years have seen the evolution of new ways of achieving results that traditionally would have been reached through the development of standards. The most obvious example of such a new technique is the open source project, of which there are thousands now in process.

As a result, these days, I usually speak and think in terms of "commonalities" instead of standards when I want to describe how to get the interoperability job done. What is a "commonality?" A commonality, I would submit, is:

- Whatever tool(s) we need
- That we need to agree on
- In order to do what we agree needs to be done

Let's look at each of these elements individually. For a given job, more than one tool may be needed (perhaps a traditional standard, or set of standards, and an open source reference instantiation). The second element is the most familiar, because consensus is still necessary for all the usual, good reasons. And while the third element also has a familiar sound, it contains a subtle, new twist, because what we agree needs to be done is changing. Most obviously, new realities (such as the marriage of telecom and wide area network computing) need the interplay of scores—if not, indeed, hundreds—of interoperability standards in multiple devices to complete tasks that we now take for granted.

I would also suggest that there is another evolutionary change in the third statement. We need to address the question: whom should the "we" be that decides what needs to be done?

Historically, that "we" has primarily comprised three groups: *government*, which imposes standards through its regulatory power, typically relating to issues such as health and safety; *industry*, in ways that are supplemental to health and safety concerns (e.g., building codes); and *vendors*, in pursuit of commercial opportunities (e.g., interoperability standards).

All of that might have been well and good while we lived in the "one product, one standard suite" world of yesterday. But in the increasingly interconnected world of tomorrow, what will life be like for each of us, if there is no importance set on the experience of the individual user? How many different interfaces will we need to deal with, how much data will we drown in, and what, God forbid, will we do if we lose that data?

In the two articles that follow, we focus on the near-term and the long-term future of commonalities, and how they can best be agreed on and developed. The first highlights seven trends that those engaged in standard setting will need to deal with in the next several years, while the second will urge you to look at standard setting in a new way. That way is from the bottom up, where end-users live, rather than from the top-down, where vendors live, and from where conception, development, and commercial deployment of standards usually come.

I believe the time has come to think from the bottom-up, and in terms of commonalities. The result will be a world in which collaborative efforts will better address the real needs of real people. At the same time, commercial opportunities for vendors and service providers will evolve faster, and with less risk, than through the continued development of the standards of old, using the methods of yesterday.

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FEATURE ARTICLE

PAST, PRESENT AND FUTURE: THE ACCELERATING PACE OF CHANGE

Andrew Updegrave

If you are new to standards and standard setting, it may seem like a fairly static process. Even if you are a veteran standard setter, you may not be conscious of just how much has changed in the last ten years. And unless you live your life in the standards arena, you probably don't spend much time musing about what standard setting in the future might be like. But if you did, you might be surprised to realize how much things may be about to change.

Is that a good thing? For that matter, is change inevitable? And if it is inevitable, is there anything anyone can do to prepare for it? We think so, and that's what this story is about.

In order to most effectively plumb the future, it is usually wise to first take a critical look at the past. Appropriately, then, here is a high-level review of how we got to where we are today, with an eye towards gleaming what clues it may hold for the future.

I. A Brief History of the Standard Setting Past

Standards, depending on how you define the term, go back thousands of years. But organized, consensus-based standard setting is primarily a creature of the last hundred years or so. Those hundred years can be divided into ever-shorter distinct eras, each of which was distinguished by an important developmental step.

The First 70 Years: Modern standard setting took nearly this entire period to fully develop. The first modern standards bodies had their genesis in two areas of need that remain relevant today: safety, and interoperability. In the former arena, the first standards involved products like steam boilers, which had a distressing propensity to explode in those pre-regulatory times. Interoperability needs also arose in response to concerns that still exist today: the creation of networks, and the advantages of multiple-vendor environments.

The classic example of the first network standard is the railroad. In the beginning, railroads were disconnected, isolated lanes of travel, owned by local companies. In such an environment, the owner of a railway could set the rails at whatever distance apart he desired. That was fine, until local railways inevitably began to meet, and the advantages of allowing the same rolling stock to pass from one railway to the next became evident.

Similarly, in the pre-production line era, people lived in a world where one craftsman or shop was responsible for the production of an entire finished product. But with the advent of mass production, mechanical parts like bolts and nuts were expected to "plug and play", and in due course the benefits of being able to buy those parts from another vendor -- and better yet, from one of several competing vendors -- became evident.

But who would decide what the specifications of such parts would be, or how much pressure a boiler should be required to withstand? Over time, the modern standards development organization evolved to solve this conundrum, and proliferated across many market niches. Not surprisingly, international bodies followed, in order to bless one standard or another on a regional or global basis, in order to facilitate international trade and travel.

While standardization initially served the needs of vendor, customer and public safety, it wasn't long before its utility for establishing commercial value was recognized. Certification testing and branding duly followed.

Eventually, the concept of accreditation was developed, as a means of establishing which self-espoused standard setting organizations met minimum standards. In a sense, with the addition of accreditation by national bodies (such as ANSI, in the United States) and international bodies (such as ISO, globally), the standard setting structure could be regarded as complete. And so it was, for a given time and place. The result was the golden age of the "SDO": the accredited, consensus based, low-fee, organization that set standards and sold copies of them to help defray operating costs. Standard setting had become what would commonly be thought of as a "mature industry."

The 1980s: In the latter part of the 20th century, however, the process of information technology (IT) development began to increase rapidly. New innovations gave rise to new commercial and technical demands as well, such as the advent of networks that presented the need to connect more devices, using more software, in more complex ways. Time to market concerns also became extreme, as did competitive jockeying for advantage. The result was the advent of the "consortium" -- a self-selected group of companies organized to achieve a specific, often limited, goal in rapid fashion (whether or not greater speed was actually achieved varied with the organization).

By creating a new entity, free of the need to conform to accreditation requirements, a founding group of companies could write its own rulebook, borrowing as much (or as little) from the SDO model as it wished. It could also decide how much "openness" it wished to provide for, depending on the motivations of the founders and the nature of the need being addressed. For example, if the founders already owned a majority of the market share in the subject area, the balance of the vendors in that space could be expected to meekly fall in line. But if the founders were banding together to confront the market power of a more powerful group of vendors, then openness would be a much-trumpeted feature of the organization, in order to provide the maximum incentive for others to join in.

The proliferation of consortia was rapid. By the end of the decade, scores of such organizations were operating, with varying degrees of success. Most did not have long lives, although a few from that era persist today. The concept itself, however, set deep roots, and the number of consortia launched in the IT space eventually numbered in the hundreds.

A more ambitious model also evolved, although the number of organizations adopting this methodology was small. In this approach, multiple vendors worked closely together, collaborating on the research that would provide new production capabilities more speedily, and sometimes to create actual commercial products. In each case, it was competitive pressures that motivated groups of head-to-head competitors to join together to do what they normally would have done separately.

This new way of doing business was most famously personified by SEMATECH, an ambitious joint research effort that was launched in 1986 in response to the perceived fear that Japan's collaborative business culture, sympathetic government, and more tolerant antitrust philosophy would eliminate foreign competition in the semiconductor space. Fortified by governmental blessing in 1984 in the form of the National Cooperative Research Act, which provided such collaborations with a measure of immunity from the more punitive aspects of U.S. antitrust laws, the major United States semiconductor manufacturers poured hundreds of millions of dollars into their new venture in a successful effort to reestablish themselves in the semiconductor market.

In the software space it was the Open Software Foundation (OSF) that led the way, an open (and also expensive) consortium formed to create a common Unix platform in response to the perceived threat presented by an alliance formed between AT&T (the owner of Unix at that time) and Sun Microsystems. AT&T and Sun, in turn, formed Unix International with a similar purpose, and the "Unix Wars" that dominated the pre-Windows NT world were off and running. Before they were through, a host of operating-system level consortia were formed.

The 1990's: While the consortia of the 1980s very frequently had either a proprietary, or an anti-proprietary goal, the consortia of the 1990s more typically had an open goal that might just as appropriately have been chartered within an SDO. Many also began to cover broad technical domains, rather than narrow objectives. The Object Management Group, for example, recruited hundreds of

companies to engage in enabling a new approach to software development and reuse, while OASIS addressed an ever-widening circle of projects in the XML area.

In response to this loss of market share, SDOs began to look for ways to tempt companies into launching new projects inside an existing SDO, either at inception, or by the later adoption of a consortium-originated standard by the SDO. One such effort resulted in the "PAS Process" of ISO/IEC, which allowed successful consortium standards to be submitted to ISO for formal adoption as global standards. SDOs themselves were also evolving, with some adding many new technical committees in increasingly diverse work areas (see, for example *INCITS, Then and Now* < <http://www.consortiuminfo.org/bulletins/trends> >).

Perhaps most significantly, the open source movement began to gain ground in the late 1990s. While few commercial companies initially paid much serious attention to this new process, hundreds of individual engineers around the globe began to dedicate a substantial part of their personal time to the development of open source code. Eventually, this collaborative methodology became fully formed.

While the development of the open source process was evolutionary, the licensing model that accompanied it was nothing short of revolutionary. More properly speaking, what came into being was a spectrum of open source licensing variants that continues to multiply. At the far left lives Richard Stallman, doyenne of the free software movement, proponent of the GNU license, and founder of the Free Software Foundation, while on the right exist multiple flavors of licenses created by very much for-profit companies, like IBM. In the middle are scores of license models, most with only minor variations one from another.

II. The Present

Today, the pace of innovation and the forces that call upon the process of standard setting to morph still further continue to accelerate. Some of the principal developments of just the first few years of the 21st century are as follows:

Open Source Comes of Age: Not only has Linux become the darling of major IT vendors like IBM and Novell, but a host of new collaborative activities are springing up around it. Linus Torvalds, the father of Linux, has joined OSDL, the multi-million dollar effort supported by increasing numbers of the largest vendors. At the same time, a host of non-Linux commercial open source projects are also proliferating, supported by the same vendors. Their numbers include Eclipse.org (which has just emerged from under IBM's economic wing), OpenOffice.org (a Sun-sponsored project creating a platform independent, XML based alternative to Microsoft Office), and Time-Warner's Mozilla.org (which continues to develop the Netscape browser and email suite).

The evolutionary circle has also closed, with the creation of consortia to promote open source solutions. The [Embedded Linux Consortium](http://EmbeddedLinuxConsortium), for example, promotes Linux for use in creating embedded applications, and is creating an open, unified platform specification.

Not only has open source code become commercially implemented, but the open source methodology has become ubiquitous as well. One has only to visit the beehive of activity at SourceForge.net to appreciate the variety of ongoing projects, the ease with which new efforts can be launched, and the amount of energy being poured into open source projects. As of this writing, SourceForge boasts an incredible 75,743 individual, hosted projects, and 787,773 registered users.

From an evolutionary perspective, the economy as well as the quantity of the open source model is significant. Conducting work through SourceForge demands none of the extensive infrastructure or budget of traditional standard setting. Critics would point to the same lack of structure as a failing that will inevitably lead to infringement claims (a la the current SCO fracas), quality control issues and lack of focus. Proponents would point to the rich possibilities that can arise from such creative ferment, and note the billions of dollars that companies such as IBM are pouring into Linux, a child of the same process.

What will the future hold for open source? Certainly a continuing formalization of the process of open source development, at least as it is conducted by commercial players. At some point in the future, it is

likely that this methodology will become institutionalized in the same manner that the SDO process, and then the consortium process in its turn, became formalized.

Blurring at the Edges: Twenty years ago, a typical consortium would have been easy to distinguish from an SDO in at least some focus and process particulars. Today, this is far less true, with some consortia becoming virtually indistinguishable from SDOs. The W3C, for example, has chartered increasing numbers of working groups, posts its draft specifications for public comment, engages in public policy debates, and operates out of international offices on three continents. Were the W3C to decide to apply for ANSI accreditation, the changes it would need to apply to its process would be few.

Another example of the blurring between the SDO and the consortium process is the fact that in organizations like the International Imaging Industry Association (i3a), both accredited as well as non-accredited processes happily coexist under the same virtual roof. i3a conducts member-proposed "initiatives" where speedy results under a consortium process are desired, and, in addition, acts as the secretariat for the US Technical Advisory Group for the ISO/TC42 process, hosting 11 technical committees in this area.

Convergence: This is the decade when the word "Communications" was added into the traditional IT acronym, acknowledging the business convergence of two fundamental technical areas into the new reality of "information and communications technology" (or "ICT"). The reason is hardly surprising, given the advent of wide area networks, wireless, rich services delivered over cell phones and other devices, and the telecom-enabled Internet as the backbone for almost everything in the IT space.

With this convergence comes a new reality: that standards are increasingly mandatory in the IT space, rendering collaboration on formerly proprietary elements into a practical necessity. Whereas, in the past, a single vendor might hope to create a suite of products and services based on its own proprietary architecture, customers today expect to be able to connect anywhere, anytime, using any device, from any vendor.

This sort of expectation has long been accepted in the communications space, where only extensive suites of standards can permit communications networks to exist at all. In order to access the new business opportunities represented by a wireless, interconnected world, IT vendors now have no choice but to play in the same type of mandatory standards space.

New paradigms: With this new demand for pervasive interconnection comes the need for new technical strategies to achieve ever more ambitious goals. One such strategy is the development of the "Web Services" concept, and 2003 saw a veritable explosion of new standards initiatives intended to make such services a reality. One benefit of this new approach is the promise of permitting the interoperation, rather than replacement, of the enormous installed base of proprietary software.

Whether the ambitious rewards promised by web services evangelists will in fact be realized, or whether the web services approach will prove to be but the latest approach to fall short of its advance billing, remains to be seen. But increasingly heavy bets are being placed by all of the major IT vendors that web services will play a large role in the future of computing.

In the meantime, the balkanization of web services efforts among multiple standards bodies (or, if you will, the inability of a few large vendors to exercise the degree of control they desired in those same bodies) has spawned an intriguing new approach to creating commonalities. That approach was instantiated in a new organization, the Web Services Interoperability Organization, which explains that it lives "downstream" from standard setting organizations. Rather than standards, WS-I's deliverables include "Profiles", "Sample Implementations", and "Implementation Guidelines." Roughly speaking, WS-I assembles recommended suites of standards created by others in order to address specific needs. (See, "New Wine in Old Bottles: WS-I Brings a New Dimension to the Art of Making Standards Succeed")

III. The Future: Seven Standard Setting Trends to Watch

Manifestly, standard setting has been in a process of constant evolution. What's past in this regard will certainly be prelude -- but to what? Here are seven of the trends that we believe will have the greatest impact on standard setting in the balance of the first decade of the 21st century.

Trend One: The Rate of Change Will Continue to Accelerate: Moore's law famously provides that the number of transistors in a single integrated circuit doubles approximately every 18 months. While Moore's original 1965 observation was limited to one fundamental aspect of technological development, the concept (if not the precise periodicity) of exponential growth extrapolates well across the entire ICT field. Since standard setting derives from and serves the development of technology, it has no choice but to match the same pace, or cease to have any utility at all.

As our brief review of the past has shown, the evolution of standard setting has quickened remarkably. But the increasing pace of technological change, conjoined with hardening domestic and international competitive forces -- and even evolving philosophical ideas about technology and society -- have called for more than the mere compression of allowable time to progress a standard from perceived need to accomplished fact. Instead, we have seen that new methods of standard setting have necessarily been developed to serve these demands, from the consortium process and collaborative efforts like SEMATECH, to open source projects and the WS-I model.

And note also that the sheer output of ICT standards has been increasing at a truly breathtaking rate, with entirely new areas of standards (e.g., wireless, in all of its many forms, as well as web services) arising with increasing frequency, thereby adding to the existing efforts already in place.

To return to Moore's Law and use it as a jumping off point, "Updegrave's Law" of standard setting would observe that the radicalism of evolutionary changes in standard setting has been doubling each time that a new conceptual barrier has been broken over the last twenty-five years. I would suggest that its time for the next leap (see the following article).

Summary: In the future, players in the ICT space will be forced to deploy increasingly significant economic and human resources to the creation, understanding, and deployment of the standards that will be essential to enable new product and services offerings. This will have several major impacts:

- There will be an increasing need for standards professionals with the skills needed to engage in standard setting activities on behalf of companies, as well as manage those same efforts on behalf of SSOs. American universities are not offering the types of courses that produce such individuals, and vendors will therefore be forced to train them internally, or hire them away from other companies that have gone to the expense of supplying that training.
- Major vendors will need to spend greater efforts creating the internal structures needed to vet, staff, and manage participation in standard setting efforts. The magnitude of this effort is already significant, running into the tens of millions of dollars per company per year for the vendors that are the most active standards participants.
- Those vendors that can afford to support -- and influence -- the standards process will be at a competitive advantage over the smaller vendors that cannot, providing another force tending towards consolidation in the ICT industry.

Trend Two: Yesterday, Standards. Tomorrow, "Commonalities": As noted in this month's editorial ("[A Look into the Future: Not Standards, but "Commonalities"](#)"), the world is moving beyond what traditional standards alone can enable. Here are but a few examples of the forces that demand new approaches:

- More and more things need to work together in more complex ways (think IT over wireless, or the bewildering number of currently active web services initiatives). This requires a more synergistic and coordinated standard setting approach, where interdependent standards must be developed concurrently, rather than sequentially.

- New techniques are increasingly required in order to achieve desired results (think open source and WS-I). As new types of convergence arise, new ways of working together between heretofore-disparate technical domains will need to be explored. (Imagine an implanted insulin monitor employing a wireless transmitter to report data back to clinicians via the Internet to be collected in clinical trial databases to drive development of more effective drug therapies.)
- More types of devices are being employed to access data types that only recently have arrived -- or indeed, have not yet even arrived -- on desktops (think cell phones that are being enabled for picture taking, streaming video, web browsing, and text messaging, as well as simple voice communication).

To give one example of the new world we live in, consider this: pacemakers are now being built that are controlled by wireless signals. Happily, ETSI is at work to designate an internationally acknowledged radio frequency for such devices, to ensure that vacationers celebrating Carnival in Rio will not go into cardiac fibrillation when someone uses a garage door opener outside their hotel room

Summary: Thinking out of the box will be crucial in the future. New approaches to create commonalities, and new types of commonalities, will be needed to address challenges arising from new degrees of complexity and new areas of convergence.

Trend Three: We are Entering the Age of the Global ICT Village: The Internet, Web and wireless technologies have become the backbone of civilization. With this reality comes responsibility, and the standards space will need to adapt in response to this reality.

Up until now, consortia have existed in a largely value-neutral space driven solely by commercial considerations. But with globalism, there will be increasing pressure to take into account linguistic, cultural and other differences among the world's peoples. The need to address these differences is crucial, not just in order to secure the widest market for products and services, but to ensure equal access and opportunity for third world citizens as well. Already, global SDOs like the ITU are assigning major priority to issues of equity, convening the World Summit on the Information Society in an effort to ensure that all peoples share equally in the benefits that the Internet and the Web have to offer. The activities surrounding this initiative span three years, beginning with a first meeting held in Geneva, Switzerland in 2003, and ending with a final conference in Tunis, Tunisia in 2005.

Other existing efforts include the commitment of the W3C to equal global access via the Web, the efforts of the Unicode Consortium to enable all people to communicate via ICT technology using their indigenous linguistic character sets, and ISO's commitment to address ICT challenges presented by physical disabilities.

Other purely technical standards areas are becoming crucial to the operation of society in diverse ways. GIS standards now enable emergency response services of all types, and the challenges presented by national security concerns in our current age of terrorism accentuate our reliance on such technologies. If those who create commonalities do not adequately serve societal interests, it can be assumed that governments at home and abroad may take a greater interest in how commonalities are developed and deployed.

Summary: Standards types that have previously had only commercial significance will increasingly generate societal impacts as well. Standard setting organizations can expect to attract increasing attention from government and NGOs, as well as new expectations from non-members, as the potential for standards to create benefits is compared to the reality of actual standards production and deployment. SSOs will need to adequately meet these expectations, or face competition from, or regulation by, governments that feel a responsibility to achieve specific results.

Trend Four: Government Purchasing will have Increasing Impact on Standard Setting: The good news is that governments are taking increasing interest in standards. The United States, for example, moved legislatively in the 1990s to direct its own agencies to participate in standard setting bodies, to

utilize the standards of those bodies in preference to the "government unique" standards that had previously been created and specified in purchasing, and to report their compliance with these edicts.

The bad news (at least, for some vendors) is that the immense purchasing power of federal, state and local governments worldwide can be directed towards specific objectives. The current swing towards Linux by diverse national and local governments worldwide is the most obvious example of this power, but the adoption of RFID technology by the United States Department of Defense may have an equivalent impact in a more narrow technological space, if other agencies follow DOD's lead.

Summary: If current trends continue, vendors can expect that governmental purchasing will have increasing impact on the development and adoption of standards. SSOs and individual vendors will need to address the increasing ability -- and willingness -- of governments to anoint specific standards in order to avoid wasted time and thwarted strategies. All will benefit if the most productive and cooperative relationship possible is forged between private industry and government in the standard setting process.

Trend Five: The New Nationalism in Standard Setting: While standards have always had the potential to be used to erect trade barriers (and that potential has too often been exploited), there are new forces active today that could lead to erosion of the use of standards on a nation-blind basis.

One example is the increasing degree of regional standard setting within the EU. Another is the willingness of China to set "go it alone" standards to advantage local manufacturers in selling into the domestic market. Given the size of the Chinese market, non-domestic vendors are hardly in a position to do anything other than build to the local requirements.

Where regional or local standard setting is in reaction to truly unique needs, such practices may be necessary. But when standards are used to secure commercial advantage for domestic vendors, there is the danger that the approach can provoke similar action by other countries, leading to an all-out "standards war"

Summary: As standards become more important, they may become increasingly attractive to governments looking for new and effective tools to carry out trade policy. Vendors will benefit in the long term if they do not lend support to such activities to gain short-term advantages in specific product areas.

Trend Six: IPR Distractions Will Eventually Abate: The surprise victory of Rambus in its quest to levy royalties on implementers of JEDEC SDRAM standards has had the palliative, if painful, effect of finally making SSOs take IPR process and policy issues as seriously as they should. While previous legal disputes (commencing with the consent decree imposed by the FTC on Dell Computer in 1995) have attracted the attention of standard setting participants in the past, most efforts to implement industrial-strength IPR policies were limited to ensuring that new organizations started up with effective policies that were acceptable to (at least) their founding members. Existing organizations with hundreds of members, however, still largely shrank from the labor and tedium of revamping their often-outmoded and ineffective policies and practices.

With Rambus raking in the royalties on its SDRAM patents, however, many consortia (but fewer SDOs) took the plunge, and embarked on the drafting and consensus building process of amending their existing policies and processes. The specific terms of the policies adopted varied from organization to organization, based upon member tolerances for royalties and other industry-specific factors, but every organization that completed this process is now far better able to assure predictable and beneficial results for its members than it was before.

The other good news is that, as a result of this crash course in IPR policy amending, many more standards professionals and attorneys are far more conversant with PR policy terms and the rationales for their usage than they were a short time ago. Where previously it could be assumed that widely divergent views might be expressed by diverse members (and not infrequently even by different legal representatives of a single member), those companies that take the time to join working groups to develop new policies are today far more likely to send knowledgeable representatives that know what

they want, why they want it, and where they will have to compromise in order to achieve consensus around a final result.

The bad news is that the effective implementation of these new policies will impose new demands on SSO resources. At minimum, SSOs will need to be far more conscientious in record keeping, as the foundation of IPR policies is the timely disclosure of patent claims that would be infringed by the implementation of a new draft specification. And while sophisticated web-based platforms now exist to assist with this process, their deployment nonetheless takes time and money.

Similarly, it is important that those that conduct the standards development and adoption process within an SSO must be properly trained and supervised, to ensure that patent calls are made at appropriate times, that in-meeting disclosures are recorded and investigated, and that sometimes complex legal distinctions are appreciated and acted upon in an appropriate fashion.

SSOs also need to appreciate the burdens that certain specific IPR policy terms that are preferred by some members will impose on their process. For example, where an IPR policy permits members to own IPR that is collaboratively created during a meeting (and not just IPR that is formally submitted by a single member), detailed minutes will need to be kept to substantiate who in fact may lay claim to what, in order to avoid contentious disputes over the standards that they administer.

Summary: A new level of sophistication has been achieved by the many SSO members that choose to take part in the drafting and amendment of IPR policies. The concurrent negotiation of policies in many organizations has helped refine IPR policy models, and has led to greater recognition of the specific alternative terms that are most suitable to given situations. The industry will benefit in the future from the painful IPR transition process that was occasioned by the very public victory of Rambus, but will need to shoulder a greater burden than in the past in order to properly administer these new policies.

Trend Seven: Customer Pull: Vendors are used to being the ones that hold all of the cards in standard setting. They are the ones that identify the needs that they believe represent the best profit opportunities, and also launch the initiatives that produce the standards themselves. While this leadership role guarantees a great degree of control over the production end of the process, it creates risk at the other end of the standards supply chain: if customers choose not to buy the standards-enabled products that the vendors have created, then the entire standard setting process will prove to be a costly imbroglio.

2003 saw this dynamic turned on its head in the area of radio frequency identification (RFID) tags, as first Wal-Mart, and then the United States Department of Defense, announced that it would begin to require the use of RFID technology by a broad array of suppliers in the near future. The result was the guaranteed success of a new standards area that at the beginning of the year seemed promising but uncertain, due to the usual standards "chicken and egg" issues: Would demand grow sufficiently to allow the prices of RFID tags themselves to fall to a point of commercial viability? Would everyone in the supply chain climb on board? Would major vendors develop and sell the other parts of the supporting infrastructure?

In one fell swoop, the announcement by these two huge buyers of diverse product types changed the RFID question from "if" to "when" -- and even supplied a deadline for the "when." While the exact trajectory of RFID uptake is yet to be charted (a recent Forrester study predicts that there will still be a lag before the market generally climbs on board), the power of the customer to accelerate the development and adoption of standards was abundantly demonstrated.

Summary: With the flexing of Wal-Mart and the DOD's muscles, a new dynamic has been introduced to standard setting. While vendors will need to scramble to address this new force, they will be well rewarded by lowered risk in placing their bets on new standards-based products and services, and in investing the time to create the enabling standards themselves upon which such products and services will be based. At the same time, SSOs should try harder to create the type of member value propositions that will tempt more customers into the standards development process, so that end results will be optimized, and the more rapid and smooth uptake of standards assured.

IV. Conclusions

As technology becomes more interwoven into all aspects of life, the need to agree upon the commonalities that permit such an increasingly complex system to operate will become ever more vitally important. Already, standards-dependent Internet and telecommunications technologies have become the backbone upon which health services, emergency response, financial transactions and education increasingly rely. One can only assume that this trend, and hence the dependence of society on these services, will increase.

As this dependence increases, so also will the importance of setting the commonalities upon which these and future technology-based systems are and will be based. With this importance may well come new concerns over who is entitled to create these commonalities, and what processes should be permitted to be employed to create them. In the future, vendors may find that they have less of a say over the standard setting process, as other stakeholders, both governmental as well as private, assert a right to influence results.

In consequence, all who are involved in the current standard setting environment would do well to keep an open mind about the future, and to be willing to explore new ways to get the job done. Familiar methodologies that were well adapted to the needs of yesterday may be ill suited to meet the challenges of tomorrow. Those that are most willing to lead the way in creating and embracing these new processes will be the ones that reap the greatest advantages of the commonalities that are created to meet the needs of the future.

Comments? updegrove@consortiuminfo.org

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TRENDS

A LOOK INTO THE FUTURE: INTRODUCING THE PERSONAL DATASPHERE

Andrew Updegrove

The Old Way: Do standards serve a useful purpose? Certainly, yes. But whose useful purpose do they serve? Consider these two questions and answers:

Q: Where do standards come from?

A: From the top.

Q: Who must live with the results?

A: Those at the bottom

What I mean by this is that, while standards affect each of us as individuals in a myriad of ways, we have no role in determining what the standards are intended to accomplish and how they will be determined, unless we happen to be involved professionally in that process. True, the standards process of accredited standards development organizations ("SDOs") provides that any and all can have input on the creation of standards, but actual public involvement in most technical areas is very limited.

The impact of this reality is particularly acute in the ICT space. Unlike health and safety regulations, which are created by our public servant proxies, ICT standards are largely created by commercial entities that decide what sorts of products and services they wish to offer based solely on their judgment of what will create the greatest profit opportunities.

While the outcome of such a free-market approach is not necessarily bad, in that these economic judgments are based upon vendor perceptions of what customers would buy if it was offered to them, neither is it optimal. Why? Because commercial standards are set by pools of vendors that focus on discrete product areas: printer companies focus on printer standards, imaging companies focus on imaging standards, and so on.

Again, there is some blending of interests, in that the highly consolidated IT space includes giant companies that have put down markers in many product spaces. But these same companies only coordinate their standards activities to a limited degree, given the hundreds of SSOs (SDOs and consortia) of which they are members.

SSOs do maintain liaison relationships among themselves, but these relationships are invariably limited to only one "degree of separation", and are maintained primarily where there is a danger that their respective standard setting gears will grind together if their efforts are not in synch to some degree. Nowhere does there exist an effective way to coordinate broadly the activities between disparate SSOs to ensure, for example, overall ease of use for the user.

Which brings us to the question of whether there is a better way in which standards could be created in the future. And also to the realization that "standards", in the traditional sense, will often not be up to the task.

The Challenge: In fact, I believe, there is a better way to create the "commonalities" that would meet the needs of the future. Not only is there a better way, but I believe that coming up with that better way is essential at this point in time, due to the new challenges that will face us as individuals in our increasingly data driven, interconnected world.

What are those new challenges? Consider this:

Ten years ago, people did digital work exclusively using desktop or laptop computers, took pictures using traditional print-process cameras, listened to music on CDs, and produced electronic documents that were invariably converted into paper copies. All of the information thus created was stored in tangible form, and was portable in that form. For most of humanity, as a practical matter, there was no Internet or World Wide Web.

Today, people compute using a variety of devices, including PDAs and other wireless enabled equipment, increasingly take pictures using digital cameras, capture and access music in MP3 file form, create and store documents digitally, exchange all of these data files via the Internet, and increasingly store the same data exclusively in digital, rather than tangible form. Moreover, individuals are likely to acquire, exchange, store, and access data from many access points, using many types of devices, and at any time (including at work).

Concurrently, with the evolution and popular adoption of the Web, the types and value of data that is being made available in digital form is expanding explosively. Managing that data is becoming an increasing challenge. Further, virtually all types of data important to one's everyday existence are becoming digitized and are managed in that form: academic records, vehicle registrations, personal banking, and so on.

Ten years from now, one can only expect that this trend will have accelerated to a point where life will be impractical without seamless access to all imaginable types of data, anywhere, anytime. The importance of acquiring, securely maintaining and accessing that data therefore will become paramount. If we ever lost our data, we would be reduced to digital non-persons.

In short, we'll all be drowning in data -- pictures, music, documents, health data, employment data, and on and on and on. How will we organize it? Archive it? Access it? Maintain it from cradle to grave (and beyond?)

A World of Virtual Spheres: In 1925, a French Jesuit geologist/paleontologist/philosopher named Pere Pierre Teilhard de Chardin wrote a seminal article visualizing a new layer of consciousness surrounding the globe, comprising all human thought and culture. Akin, in its own way to the biosphere or the atmosphere, Chardin called it the "Noosphere." Years later, with the advent of the Internet and the Web, many found Chardin's concept to be even more prescient and startlingly relevant.

In truth, we are increasingly living in a world of virtual, data-driven spheres. The Web, with its almost infinite possibilities, creates a universally accessible interconnection to all of the world's knowledge that has been converted into digital form; business-owned spheres represented by myriad wide-area networks; governmental spheres assembled at the local, state and national levels; knowledge domain libraries created by universities.

And, I would propose, 6 billion "personal data spheres."

What is a personal data sphere (PDS)? I posit that humanity is irreversibly entering an era in which every individual will be living his or her life within an ever more rich and dynamic PDS. An individual's PDS will begin to be created before birth (e.g., prenatal medical records, parental estate planning documents, etc.), will accompany the individual throughout life, and in many respects will need to be accessible after death by the former owner's estate, children, the genetic counselors of the former owner's descendents, and so on.

The importance of enabling the easy maintenance, secure storage and ready access of the PDS will be an essential element of the human condition for the rest of foreseeable history. Accordingly, facilitating the creation and maintenance of the PDS needs to be given the same degree of respect and priority as business data spheres, government communication systems and the Internet.

As earlier noted, vendors have little incentive to coordinate the acquisition, management and access of diverse types of personal data. Accordingly, except to the extent that addressing these issues must be coordinated to serve the commercial interests of vendors, there is no incentive for traditional standard setting players to direct their efforts to optimize the ease of dealing with data of all types for the individual end user. Hence, the PDS will be enabled only as, and in such a way, as will serve the uncoordinated best interests of vendors. The result will assuredly be a hodge-podge of disparate interfaces, database structures and access protocols.

While traditional market dynamics will not lead to the efficient development of a robust infrastructure to support the PDS, consider this: Ultimately, the best interests of vendors will be well served by the most rapid, effective and user-friendly development of a standardized PDS environment, thereby enabling new products and services to be created and offered to end users. As the PDS becomes widely implemented, a 6 billion strong market will be created of potential customers seeking a wide variety of goods and services that will help them input, manage, secure and access their PDS on a life-long basis.

For example, although initially a "PDS Lite" software application could be created for installation on a PC, the logical home for hosting such vital information is a secure remote server. This model would create huge additional demand for server space, enhanced ISP services, broadband access and faster processors. Similarly, the adoption of digital cameras, personal financial software and services, video recorders, music players, cell phones with advanced features (e.g., cameras) and other digital devices should dramatically increase, once a seamless and intuitive environment is created to store, manage and access digital data.

An effort should therefore be launched to focus attention on the concept of the PDS, and to manage the coordination of the evolution of IT and communications infrastructures to assign an appropriate priority to facilitating its development. In particular, this will entail ensuring that existing and evolving IT and communications standards facilitate, rather than hamper, the successful evolution of the PDS.

Requirements of the PDS: In order to meet all needs, a PDS must at minimum enable:

- Easy input of all types of data now or in the future imaginable
- Easy organization of that data in an intuitive way
- Secure storage and backup
- Appropriate rights management and privacy protection, including with respect to government access
- Ready access from anywhere, at any time, through any currently available or future digital device
- Single sign on owner access to PDS information that is maintained by third parties (e.g., physicians, government, etc.)
- Seamless exchange with anyone granted appropriate rights, anywhere in the world
- Portability throughout the life of the owner

The Better Way: The question then arises, how could one create the standards infrastructure to enable the rapid deployment of the PDS? Clearly, no current SSO would have the domain expertise to tackle all of the necessary technical aspects of the PDS. Similarly, there is no precedent for the type of cooperation among disparate SSOs that would be required to enable the PDS. And finally, how would one manage the inevitable turf battles among SSOs, not to mention the jockeying of vendors active in so many different product areas?

The key to all of these questions is that such a new organization must set standards from the bottom up, and not in the traditional, top down, manner. A major hand in the management of such an organization must be played by the end users for whom an efficient, effective technical platform for the PDS must be provided. On the other hand, that perspective must be balanced by the realities, commercial interests and capabilities of the vendors that must provide that platform.

Obviously, an entirely new type of organization would be needed to manage such a project. Ultimately, it would be necessary for it to assemble existing standards where they were appropriate, influence the

creation of new standards in process in other SSOs, plug the gaps that remained, and perhaps develop the code for the all-important interface that would provide an individual's access to her PDS.

The first steps that would be required to structure a PDS SSO would include the following:

- Identification of interest groups that may or should be involved (e.g., vendors, standards bodies, non-technical associations, etc.)
- Determination of the most appropriate organizational structure (e.g., consortium, SDO, open source project, or some combination of one or more of the foregoing)
- Identification of areas where existing standards may be used
- Identification of missing elements
- Specification of data types (hundreds, if not thousands) and any unique needs of each
- Creation of a schematic prototype of the PDS interface

Lost Opportunity or Wave of the Future? But now, let's return to the present. Will we mount the type of effort that would be needed to create something as manifestly important to each of us as the PDS? Or will we allow the technical infrastructure that we will each have to deal with for the rest of our lives to develop in a chaotic, inefficient and ultimately ineffective fashion?

The answer to that question will tell us whether the ICT world of today is up to the challenges of setting the commonalities that will be urgently needed in the future. Absent a resetting of the consciousness of the standard setting community, the answer to this question will be disappointing.

Comments? updegrove@consortiuminfo.org

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From the Standards Blog:

I have the virus du Jour (you know, the whatchamacallit)

☐ ☐ **January 29, 2004**

So, how full is your email inbox today? Chances are that you're being bombarded with email bearing the pesky zip file that will unleash the dreaded MyDoom virus on your system. If you're unlucky enough to be already infected, then your inbox is really brimming, as you'll also be receiving tons of rejection email from the filters of everyone in your address book, informing you that you are electronically unclean. Some estimate that all of this back and forth traffic represents 20 - 30% of all email being exchanged today - and that the problem will drag on for months.

Ever wonder where these names come from, and why this one is MyDoom, and not "Loveletter (PS)", or "Larry"? Who sets these names, anyway?

Well, nobody, really, as it turns out. Or more accurately, anybody. And just to keep things interesting, sometimes two or three anybodies. As a result, even though rapid response is key to containment, it takes awhile for the industry to virally settle on one name or another to identify the latest barbarian at the IT gates. You'd think with all of the standards bodies around, that someone would come up with some sort of naming convention to set up an equivalent to the Hurricane name list. How hard, exactly, can this be?

Apparently harder than one would think, perhaps due to the pioneer spirit of the caffeine-driven security folks that seek to contain the damage. The problem is highlighted by Reuters' European Internet Correspondent, Bernhard Warner in a recent article engagingly titled "Bagle Virus Slows, Fuels Naming Debate." As Warner reports:

Since emerging on Sunday, "Bagle" has been something of a mystery. Computer security experts first called it "Beagle" after pulling the reference from a line of code found in the malicious program. Later, it was given the name "Bagle," a misspelled version of the doughnut-shaped roll. To the virus-weary public, warnings about a malicious bagel drew more questions than normal.

As well they might. The article goes on to say that the problem seems irresolvable, because "new monikers are in short supply," and that the industry is unlikely to agree on a naming convention. Come on now. Names in short supply?

In the interest of public service, I therefore hereby volunteer to be the Linus Torvalds of viral nomenclature, and declare my willingness to set up a virtual delicatessen "take a name" site. Anyone can simply tear off the top name, and there you go. Problem solved.

Here's my starter set:

- **Darl** [as in McBride]
- **KennyG** [as in Muzak]
- **Osama** [as in, well, you know]

Comments? updegrove@consortiuminfo.org

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Useful Links and Information:

Reuters article: 'Bagle' E-Mail Virus Slows, Fuels Naming Debate

http://story.news.yahoo.com/news?tmpl=story&cid=569&ncid=738&e=2&u=/nm/20040121/tc_nm/tech_virus_dc

CNET says this is the Big One: MyDoom virus declared worst ever

<http://news.com.com/2100-7349-5149764.html?tag=nl>

*SCO's not laughing: **SCO offers \$250,000 reward for arrest of Mydoom worm author***

<http://www.computerworld.com/securitytopics/security/virus/story/0,10801,89470,00.html>

SURVEY:

ISO WANTS TO KNOW WHAT YOU THINK ABOUT ISO 9000

ANSI, New York, NY, January 29, 2004 -- The International Organization for Standardization (ISO) Technical Committee (TC) 176, Sub-committee (SC) 2, Quality Systems, has asked for international participation in a survey of user experience with ISO 9001:2000 and ISO 9004:2000. A website questionnaire has been designed to determine users' concerns and recommendations with regard to these standards, their suitability and their application. The results of the survey will play a major role in guiding the next amendment or revision of these standards.

ANSI article: http://www.ansi.org/news_publications/news_story.aspx?menuid=7&articleid=606

Link to ISO page and questionnaire: <http://isotc.iso.ch/webquest/tc176/index.html>

NEWS SHORTS

Every day, we scan the web for all of the news and press releases that relate to standards, and aggregate that content at the News Section of ConsortiumInfo.org. For up to date information, bookmark our News page, or take advantage of our RSS feed: <http://www.consortiuminfo.org/news/rss/> Updates are usually posted on Mondays and Wednesdays.

The following are just a few of the many stories from the past month that you can find digested at ConsortiumInfo.org.

New Standards/Specifications

***The Web becomes semantic:** For five years, Tim Berners-Lee has been evangelizing the potential for the Semantic Web. Some have applauded, while others have regretted the diversion of this vital consortium's resources from other potential opportunities. Today, the W3C announced the Recommendation (in W3C terminology, meaning the final release) of two of the cornerstone technologies envisioned by it to enable the Semantic Web. With this release, the debate can move from the theoretical to the real world. The next test will be the degree to which these new technologies are implemented and utilized.*

World Wide Web Consortium Issues RDF and OWL Recommendations Semantic Web emerges as commercial-grade infrastructure for sharing data on the Web

<http://www.w3.org/>, 10 February 2004 -- Today, the World Wide Web Consortium announced final approval of two key Semantic Web technologies, the revised Resource Description Framework (RDF) and the Web Ontology Language (OWL). RDF and OWL are Semantic Web standards that provide a framework for asset management, enterprise integration and the sharing and reuse of data on the Web. These standard formats for data sharing span application, enterprise, and community boundaries... Today's announcement marks the emergence of the Semantic Web as a broad-based, commercial-grade platform for data on the Web. The deployment of these standards in commercial products and services signals the transition of Semantic Web technology from what was largely a research and advanced development project over the last five years, to more practical technology deployed in mass market tools that enables more flexible access to structured data on the Web.

<http://www.w3.org/2004/01/sws-pressrelease.html.en>



Many points of access, loosely connected: Earlier in this issue we noted that one force that is reshaping the setting of standards is the desire of end-users to access all types of data anywhere, anytime, using an increasing number of device types. The result is that multiple standards must be created concurrently to address the same issues in different environments, where in the past, only issues based on a single, common platform needed to be dealt with. The following three items (out of many more that could also have been included) demonstrate how three different standard setting organizations are addressing these issues.

The first article reports on how the **Open Mobile Alliance (OMA)** is handling the unique technical issues that mobile devices bring to the area of illegal file sharing prevention. The OMA is meeting the need using two simultaneous techniques: by supplying the necessary technology to prevent actual copyright violations, and by helping with the creation of a licensing body, to facilitate the rapid implementation of the specifications themselves.

The second article illustrates what might be called "backward compatibility" issues: i.e., new services that are primarily intended for mobile devices, but which will also need to be conceived in a way that traditional desk-top based platforms will be able to access the services as well. In this case, it is the **Internet Engineering Steering Group (IESG)** that is involved, and the service is text messaging, a service that was originally launched -- and became wildly popular -- utilizing cell phones.

The third piece is a press release from the **OpenGIS Consortium (OGC)**, the acknowledged leader in setting geoinformation standards intended to "geo enable" the Web. Location based services present perhaps the ultimate example of the challenges that wireless technology and globalization present, as GIS capabilities are being built into ever more types of devices that are expected to operate anywhere in the world

Industry Group Launches Wireless DRM Initiative. OMA Unveils System to Prevent Illegal File Sharing Over Mobile Devices.

By: Laura Rohde

InfoWorld.com, February 2, 2004 -- The Open Mobile Alliance (OMA) on Monday launched its newest Digital Rights Management (DRM) system for protecting digital music, video, and software from illegal file sharing over mobile devices. Additionally, the OMA will unveil a licensing body, the Content Management License Administrator (CMLA), led by Nokia Corp., Intel Corp., Panasonic Consumer Electronics Inc. and Samsung Electronics Co. Ltd. Formerly known as "Project Hudson," the CMLA will promote the OMA's enhanced version of its DRM system aimed at securing handsets and other mobile devices. The DRM system will be built into mobile handsets to allow compliant devices to receive and play encrypted files, and should also work with devices using Wi-Fi wireless networks, based on 802.11 standards.

http://www.infoworld.com/article/04/02/02/HNwirelessdrm_1.html

The CoverPages January 30, 2004 The Internet Engineering Steering Group (IESG) has approved the "Extensible Messaging and Presence Protocol (XMPP): Core" specification as an IETF Proposed Standard. XMPP is a real-time communications protocol which allows people, devices, and applications to instantly communicate and exchange streaming XML data, based upon dynamic presence and availability information. XMPP is designed mainly for building instant messaging and presence applications. [...Full Story](#)

OGC Members Adopt Implementation Specification for Location Based Services

New York, New York, January 20, 2004 -- At meetings held at United Nations Headquarters, OGC members approved the OpenGIS(R) Location Services (OpenLS(TM)) Specification for public release. The OpenLS Implementation Specification can be found at http://www.opengis.org/specs/?page=specs_. The OpenLS Implementation Specification defines a set of core interfaces for implementing interoperable location service applications. The core interfaces are for accessing directory services (such as yellow

pages), route determination, location determination gateway, geocoding, reverse geocoding, and portrayal services using standard Web protocols. The interfaces allow telecommunications companies, telematics service providers, traditional GIS technology companies, and location-based services (LBS) providers to efficiently implement interoperable LBS applications that seamlessly access multiple content repositories and service frameworks that work across the world's many different wireless networks and devices.



Identifiers everywhere: *An increasingly important area of standardization involves identifiers of all types: based on geography (down to the specific loading dock or desktop within an organization), product categories, for purposes of identity management, and so on. The press release below announced a system that is representative of the increasing number of standardization efforts being launched and completed in this area.*

NISO-Sponsored INFO URI Scheme is Information Gateway to the Web

NISO, Bethesda, MD, January 14, 2004 – Working under the auspices of the National Information Standards Organization (NISO), a joint task force of the publishing and library communities has developed and published a Uniform Resource Identifier (URI) scheme aimed at the identification of information assets. Information assets should be interpreted rather broadly to include, for example, documents and terms from classification schemes. The INFO URI scheme is a consistent and reliable way to represent and reference such standard identifiers as Dewey Decimal Classifications on the Web so that these identifiers can be "read" and understood by Web applications.

http://www.niso.org/news/releases/pr-NISO_URL.html



How Standards Are Set

Standards for standard setters: *While those who live exclusively in the consortium space may have only dim awareness of ANSI and its role, the great majority of standard setting outside of the ICT world (as well as many standards that are in the ICT space) are subject to the process rules and other requirements that are promulgated by ANSI (the American National Standards Institute). Occasionally, those rules are updated, and when they are, some 200 standard setting organizations that deal with products as diverse as swimming pools and aeronautics must adapt, and certify their compliance as well.*

ANSI Announces Revised American National Standards Process Procedures

ANSI, New York, NY, February, 2, 2004 – The American National Standards Institute (ANSI) has announced recent changes to the American National Standards (ANS) process and issued the 2004 Compliance Form required for all organizations seeking to maintain ANSI accreditation. The deadline for completion and return of the Compliance Form is March 15, 2004.

http://www.ansi.org/news_publications/news_story.aspx?menuid=7&articleid=600



Just What We Need: *Ah, here we go again. The oldest saw in standard setting goes something like this: "Standards are great - that's why there are so many of them (for the same purpose)." The following describes and assesses the launching of two new, competing standards, noting that sometimes starting two interoperability horses can be a good thing, providing that the best of both bloodlines ends up in the final specification sired by the two groups. If there's a photo finish, of course, then no one wins the race, and you're back to the old saw about too many standards (and no implementations).*

Gartner.com, January 26, 2004 -- The note discusses WS-Notification and the WS-Resource Framework (Akamai, The Globus Alliance, HP, IBM, Sonic, and TIBCO) together with WS-Eventing (BEA, Microsoft and TIBCO). 'Web services have lacked a standard for event notification. Now, two proposals for just such a standard have emerged within the space of two weeks. But unless the two vendor camps get together, users won't benefit much. If the two groups can converge the basic publish-and-subscribe specs, it would provide a foundation to later standardize more advanced aspects of event-driven computing. For now, neither of the new specs includes durable subscription or complex event processing features. Nor are either of the specs as complete as JMS, the Java Message Service specification, which does not cover Web services but which, up to now, has been the only multivendor standard available for publish-and-subscribe messaging. ...Full Story



Is this is, or is this ain't a standard? SDO purists will tell you that only a specification issued by an accredited standards development organization can be called a "standard." Consortium folk, of course, disagree. The pragmatic among us will say that a standard is anything that's useful and universally adopted, no matter where it comes from. We tend more towards the pragmatic than the academic point of view, while also acknowledging that process values and openness are unquestionably important as well. Nomenclature aside, given the proponents of the following specification, we include the announcement below in the belief that it merits (at least pragmatic) attention:

Web Services Notification and Web Services Resource Framework.

TheCoverPages.com, January 20, 2004 -- An announcement from Akamai, The Globus Alliance, HP, IBM, Sonic Software, and TIBCO describes three new specifications which provide a scalable publication/subscription messaging model and the ability to model stateful resources using Web services. The "WS-Notification," "WS-Resource Properties," and "WS-Resource Lifetime" specifications describe a common, standards-based infrastructure for business applications, Grid resources, and systems management. ...Full Story



Open Source

***Mozilla soldiers on:** Ah, think back to those heady days of the 1990s, when Netscape was going to conquer Microsoft, when the Web would free us all forever from the threat of dominance by any single company, and when every liberal arts graduate could score a job as a VP at a VC-backed startup and become an IPO millionaire before their 22nd birthday (providing they flipped their shares -- quick). One of the first indications that this was not to be was when Netscape converted its previously for sale, proprietary, flagship browser into a freely available open source licensing model. That project is still in operation, and the faithful dutifully continue to support and extend the prototypical browser's features. The following is an update from the **Mozilla Foundation**, which is the current umbrella under which these activities continue.*

Mozilla 1.6 Ready For Release

eWEEK.com, January 16, 2004 -- The Mozilla Foundation has released the next version of its open-source Web-browser suite. The Mozilla 1.6 release, out in a beta version since December, includes expanded authentication support that is particularly useful for enterprises as well as greater integration with the GNOME desktop that is popular among Linux users. Mozilla 1.6 is available for download through the Mountain View, Calif.-based foundation's Web site and runs on Linux, Mac OS X, and Windows. With Version 1.6, Mozilla adds support for a Microsoft-specific NTLM (NT LAN Manager) authentication mechanism into its Linux and Mac OS X versions in addition to the Windows version. Another new capability is support for GNOME MIME-type associations, allowing Mozilla to adopt the same associations as the GNOME desktop for determining which application to launch for particular file types. ...Full Story

Story Updates

Openness v. sponsorship: *Standards (unless they are de facto standards, like Windows, established as a result of unusual opportunity or market power) rarely achieve success unless they are perceived to be "open." One attribute of openness is perceived freedom from undue influence by a single vendor or group of vendors. In 2003, we tracked the decision-making within Eclipse.org, an organization heavily supported by IBM. The following article describes the end result of that process, as Eclipse has completed a deliberately public separation from the economic and other ties that bound it to IBM.*

Eclipse Reorganizes Into Independent Entity

By: Darryl K. Taft

eWEEK, Anaheim, CA, February 3, 2004 – The Eclipse Board of Stewards Monday announced Eclipse's reorganization into a not-for-profit corporation known as the Eclipse Foundation. The organization initially formed after IBM released the Java-based Eclipse Platform into the open-source community, Eclipse is now an independent body that will drive the platform's evolution to benefit the providers of software development offerings and end users. McGaughey, executive director of Eclipse, said the new organization will work and look a lot like the Apache Foundation. Members of the organization will have to commit to providing a commercial product that supports Eclipse within 12 months of joining.

<http://www.eweek.com/article2/0,4149,1498992,00.asp>



The IP Shuffle: *In our November, 2003 issue ([Do IT Patents Work ?](#)) we focused on the patent-related issues roiling the ICT industry, and whether there was something fundamentally flawed in a system that is subject to so much uncertainty. One of the cases that we highlighted was the success of a one-person company, Eolas Technologies, in suing industry giant Microsoft, and the efforts that have followed aimed at invalidating the patent claims at issue.*

The last thirty days started badly for Microsoft, as the first article below reports. But by the end of the month, Microsoft was feeling more confident. As the second article reports, Microsoft is beginning to feel more hopeful that the PTO, urged on by the W3C and others to reexamine the Eolas patent, will indeed rescind the patent claims in question. In consequence, Microsoft has announced (to the relief of web developers everywhere) that it will not be issuing the fix that it had earlier announced it was developing in order to work around the infringement ruling handed down by a court last year.

Eolas Browser Verdict Against Microsoft Stands Despite Patent Review

eWeek.com, January 14, 2004 – A federal judge on Wednesday upheld a jury's \$521 million verdict against Microsoft Corp. in the high-profile Web browser patent infringement against it despite an ongoing reexamination of the patent's validity. Judge James B. Zagel, in an order issued in U.S. District Court in Chicago, found that Microsoft had infringed on Eolas Technologies Inc.'s patent on the embedding and invoking of interactive applications, such as plug-ins and applets, in Web browsers. He denied Microsoft's motion to suspend a decision until the U.S. Patent and Copyright Office complete a reexamination of the patent. ...Full Story

Microsoft says US Govt may cancel Eolas Patent

SEATTLE (Reuters), January 29, 2004 - Microsoft Corp. said on Thursday that the U.S. Patent and Trademark Office may come to its rescue and cancel a patent that could force the world's biggest software company to rejig its most popular product. Microsoft, of Redmond, Washington, said it was suspending plans to make changes to its Windows operating system and Internet Explorer Web browser, sparing users headaches caused by tweaking how mini-applications run on its software. The U.S. Patent and Trademark Office said in November it would reexamine the Eolas patent after Internet advocacy groups including the World Wide Web Consortium raised claims that preexisting inventions may invalidate

Eolas's patent claims. "Given these circumstances, and after consulting industry colleagues and developers, Microsoft, for now, will not be releasing an update to Internet Explorer," it said, adding that Microsoft also would not release a planned update to its latest Windows operating system known as Windows XP Service Pack 2. ...Full Story



Picking up steam: *The RFID express rolls on. As shown in the next two articles, the major IT vendors are hard at work building out the technical infrastructure needed to meet customer requirements. The next six months should give a strong indication as to whether a tipping point has indeed been passed, or whether the "Wal-Mart Effect" will wear off, with RFID adoption slowing dramatically before it begins to rise again (as suggested by the third article, reporting on a new IDC report). The key indicator will be whether other major buyers begin adding RFID requirements to their purchasing. If this doesn't happen, then other vendors will be unlikely to buy the new technology that companies such as Microsoft, IBM, Philips and Oracle will be offering.*

Microsoft, IBM, Philips to Back RFID. Inventory Tracking Technology Gains Speed

InfoWorld, January 27, 2004 -- RFID (radio frequency identification) tagging technology continues to gain in inventory tracking uses, as Microsoft Corp., IBM Corp. and Koninklijke Philips Electronics NV announce projects for developing and promoting it as a cost-saving tool for retailers. RFID chips, computer chips equipped with miniature antennae, store data for transmission to nearby receivers, and are increasingly being used as wireless tags to track goods. One advantage to the wireless tags is that, unlike bar codes, RFID tags can be read at any angle and from a distance. Large retail companies such as Wal-Mart Stores Inc., Tesco PLC of the U.K. and Germany's Metro AG, have been using the RFID technology and are already planning to push the technology beyond the pilot stage. ...Full Story

Oracle to Add RFID Support to Warehouse Application

eWEEK.com, January 27, 2004 -- Oracle Corp. said it plans to release a new version of Oracle Warehouse Management in the summer season that will support radio frequency identification (RFID) and electronic product code (EPC) features. The application server will include built-in RFID middleware to provide the connection-control and filtering features required to process RFID data. The warehouse management module will be able to produce and process RFID labels that are required for commodity tracking. ...Full Story

IDC Forecasts RFID Bubble, Burst, Boom

RFID Journal, January 12, 2004 -- The author of a new report sees the RFID market for the retail supply chain growing to \$1.3 billion in 2008, and then declining before the real growth starts. IDC, a technology market research and advisory firm, has published the new report, "U.S. RFID for the Retail Supply Chain Spending Forecast and Analysis, 2003-2008." The report focuses only on the retail supply chain and tries to quantify the impact of Wal-Mart's mandate -- and to a lesser degree, the U.S. Department of Defense's -- on RFID sales within the CPG industry. It also covers retailers that will follow in Wal-Mart's footsteps and issue their own tagging requirements for manufacturers, wholesalers and logistics providers. The bulk of the \$1.3 billion will comprise sales of hardware, including RFID tags, readers and antennas, plus spending on servers to run those readers and network equipment to handle the data. The remainder will come from spending on middleware and services related to business consulting, systems integration and maintenance and support. ...Full Story

Miscellaneous

Doing well by doing good: *There are three reasons for doing the right thing: because its the right thing (too infrequently the reason that motivates commercial behavior), because the government or some other source of pressure makes you do the right thing, and because you decide that its in your best interests to do the right thing. While the first motive is intrinsic to the concept of an SDO, at least to the extent that SDOs are required to welcome all interested parties and to make a commitment to consensus, only recently have a limited number of consortia begun to embrace similar concepts. The following article illustrates how the third motive is influencing one set of commercial players setting commonalities (in this case, Linux) as a result of the prior effect of the second motive on a single, dominant, commercial player (Microsoft). Over 10 years ago, Microsoft found it necessary to begin to address the fact that moving to a graphical user interface made it far more difficult for the blind to use a computer. Now, the Linux world is deciding to address the same issue -- in this case, the author suggests, for commercial rather than equitable or other reasons.*

Silicon Valley.com, January 21, 2004 Linux is chasing Microsoft's Windows into every market where the two operating systems can compete. A case in point: Today, an Oakland organization will announce it is developing standards to make Linux accessible to people with disabilities. The Free Standards Group has created a task force to establish the standards. In doing so, it is playing catch-up to Windows, which has offered add-on features available for the disabled since the mid-1990s. The non-profit group will encourage Linux developers to make their software work with a standard version of Linux. That standard version in turn will be compatible with software and hardware developed for disabled people. ...Full Story



From Postal Runners to Email: *Many third world and emerging countries in Africa and Asia are opting to go directly to wireless technology and cell phones, thereby skipping the old-fashioned (and expensive) land-line evolutionary stage of telecommunications. That may work very well where electricity is already available (or at least batteries), but what about email? Not only is a cell-phone screen and numeric keypad ill-equipped for much more than text messaging, but what if you have no computer, no cell phone, no electricity, and no ready access even to batteries? [For more, see the full entry at [The Standards Blog](#)]*

ITU, India and UPU Partnership Helps Bhutan Bridge the Digital Divide

ITU, Geneva, 16 January 2004 -- The Government of India, in partnership with two UN agencies, the International Telecommunication Union (ITU) and the Universal Postal Union (UPU), will help boost the delivery of e-post services to citizens in the least accessible parts of its south Asian neighbour, Bhutan with a package of equipment, satellite capacity and training resources worth some USD 450,000. The resulting e-post service will allow people without computers in remote areas to send e-mail between post offices for printing and delivery....The E-Shabtog project seeks to create a network of telekiosks in 38 post offices throughout Bhutan for affordable and practical access to email. Letters normally take 5 to 8 days to be delivered by postal runners between remote mountain districts. E-mailing letters cuts home delivery time to 1 night. The long-term goal is to make the post office a one-stop shop that will deliver a wide range of eservices such as bill payment, government information, and commerce. To date, 17 post offices in Bhutan have been equipped for e-post. By the end of 2004, it is planned that 38 post offices, or one-third of all post offices in the country, will be e-service ready. ...Full Story