FEATURE ARTICLE:

A RETREAT FROM PROCESS QUALITY

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The creation of standards is a real-world enterprise. The creation of ICT standards is an especially real-time exercise as well. In consequence, process must be the servant of the need, as well as the guaranty of the openness of the result.

As reviewed in our last issue of the CSB in an article entitled "Past, Present and Future: the Accelerating Pace of Change," the process of standard setting has evolved to meet the needs of those that require standards to conduct business. And while some of the results of this evolutionary process have had their detractors among traditionalists, the utility of the standards being created today is manifest.

As also noted in last month's feature article, the pace of change in standard setting is continuing to accelerate, in response to the ever-quickening rate of technological evolution. As in any other real-world situation, this creates tension between expediency and quality. Over the past year, we have seen a number of developments that lead us to believe that the balance between expediency and quality may be tipping in the wrong direction. This article will examine a few of these examples, and suggest that the time has come to reexamine process in order to rebalance the equation.

I.   The Dangers of Subcontracting

Consider the following recent announcement, as reported in *InfoWorld* on February 17, 2004:

Update: Microsoft heralds Web services for devices
BEA, Intel, Canon also part of WS-Discovery specification

Not that long ago, such an announcement might have described a joint venture among a group of companies to create a technology for their exclusive use. Today, it suggests a far different story.

What this announcement, and an increasing number of press releases of similar tenor, represent is a growing trend for a small and self-selected group of companies to join together to create a specification that serves their unique interests, and then either offer it to the market as a de facto standard, or market it to existing standards bodies for adoption, perhaps going through a "public comment" period before making the hand off. Not infrequently, one or more working groups are already active in existing SSOs trying to solve the same problem. The goal of the independent group of companies in this case is to head the formal process off at the pass, invariably by offering the alternative solution to another standard setting organization.

Not surprisingly, this sort of activity is greeted with hostility by those that suspect that the companies involved are trying to secure unique advantages that they could not gain, had they played by the traditional rules and worked with the entire industry to solve the problem within an existing standards organization.

Exactly this sort of suspicion was voiced in the case of this new Web services specification noted above. Sun Microsystems immediately denounced the announcement as yet another attempt to lead Web services down the track desired by its competitors. Microsoft replied that it would accept industry

feedback and then offer the specification to an "as-yet-unnamed industry standards organization," presumably either OASIS or the W3C.

If all of this sounds familiar, it's because it has happened so often before. On August 9, 2002, Microsoft, IBM and BEA announced the publication of a suite of specifications to "collectively describe how to reliably define, create and connect multiple business processes in a Web services environment, and help organizations coordinate business processes and transactions within the enterprise and with partners and customers across heterogeneous systems and within the enterprise." Included in the specifications was a new language to describe business processes – "Business Process Execution Language for Web Services," or BPEL4WS. BPEL4WS was eventually offered to OASIS, which accepted it after securing appropriate guarantees from the technology owners that the underlying intellectual property rights would be made available on royalty free, RAND terms.

And it has already happened again, with the announcement on March 5 (this time by Microsoft, IBM, BEA and SAP) of yet another new specification: Web Services Metadata Exchange for Service Endpoints (WS-MetadataExchange). The latest specification continues the rapid release of the deliverables described in the "roadmap" for Web services previously conceived by Microsoft and IBM.

The question naturally arises whether the proponents or the detractors of this process have it right. To Microsoft, IBM and their partners, there is an urgent need for Web services standards that is not being met by the existing standards bodies. And it is certainly true that independent organizations like OASIS and the W3C will not accept an offered specification unless they believe that it is robust and appropriate, and will be available to implementers on appropriate license terms. Finally, there is the fact that there is no single standards body that is creating all Web services standards, and a challenge of coordination of development and result therefore arises (see the May 2003 issue of the *CSB*: "Who Should Set the Standards for Web Services?")

But the nagging question persists: can it be a good thing for a small group of companies, self selected and understandably motivated by proprietary goals, to become de facto subcontractors to the standard setting process? Certainly, it is expedient. And for the majority of a standards organizations' members that is made up of non-competitors of the developer group, the practice may even seem benign. But ultimately standards are based on trust, and it is primarily process that offers the pragmatic assurances upon which trust is based.

II. Into the Lion's Den?

If allowing companies to pre-bake the cake before handing it off to the baker for sale is risky, what if a company wants to skip the baker entirely?

On February 24, 2004, Microsoft Chairman and Chief Software Architect Bill Gates gave the keynote address at this year's RSA Conference. In that address, he announced (in the words of the Microsoft press release):

> [A] detailed vision and proposals on how technology can be used to help put an end to spam, including outlining the company's Coordinated Spam Reduction Initiative (CSRI) and technical specifications for the establishment of Caller ID for E-Mail…. Microsoft believes some *relatively simple but systemwide changes to the e-mail infrastructure* are needed to provide greater certainty about the origin of an e-mail message and to enable legitimate senders to more clearly distinguish themselves from spammers. (emphasis added)

While Gates stated that public comments on CSRI would be welcome, he did not state that Microsoft intended to offer CSRI to a standards body, either now or in the future. He also went on to state that Microsoft had certain unnamed patent claims underlying elements of CSRI, which would be made available under royalty-free license terms. The FAQ sheet describing "Microsoft's Anti-Spam Roadmap" that appears at the Microsoft online press room does not address these licensing terms. However, the patent license under which the CSRI can be implemented may be found at the portion of the site at which the CSRI specification is posted for comment.

At first blush, the terms of the patent license are quite reassuring, and have great similarity to the type of licensing commitment that a standards body would typically require. For example, the license grant language reads as follows: "Microsoft and its Affiliates hereby grant you ("Licensee") a royalty free, fully-paid, non-exclusive, worldwide license…," in exchange for a cross license of any claims of the Licensee that would be infringed by an implementation of the specification. But when one looks at what isn't in the license, the advisability of implementing CSRI becomes less obvious. For example:

- The license is not expressly irrevocable

- The reciprocal license of patent claims required from Licensees benefits Microsoft, but not the owners of other patent claims that might be infringed by an implementation of CSRI (except to the extent that Microsoft wishes to assert its license rights – which it has no obligation to do)

- The licenses are not transferable, which means that every company in the distribution chain must obtain a license directly from Microsoft – which thereby collects more and more patent cross licenses, which again primarily benefits Microsoft

- Microsoft has not disclosed what its patent claims are, and as a result, implementers are not able to design around those claims (as an SSO work group might), in order to avoid the patent claims entirely

- Implementers can ask for changes or new features, but they can't demand their inclusion. Only Microsoft can decide which way CSRI evolves in the future

- Microsoft can refuse to grant a license to a specific company if it so chose, since it has not made a pledge to any third party (like a standards body) that it will license on a non-discriminatory basis

- The definition of the specification in the license does not state whether t applies to future versions of CSRI. Hence, Microsoft has not expressly stated that it would license future versions of CSRI that might include new patent claims owned by it

- If Microsoft wanted to move on to another solution in the future, it could discontinue supporting CSRI, even if existing implementers wished to continue using it

- Microsoft could simply discontinue granting further licenses to new implementers at any time

- And finally, if it wished, Microsoft at some future date could decide to bundle CSRI with Windows at no extra cost, thereby economically undercutting any of the companies that had incorporated CSRI into their own products

In short, the structure that Microsoft has offered to the industry is most akin to a users group, dressed up with a quasi-standards based patent license.

The Microsoft proposal is hardly a new concept. Vendors have tried to straddle the "owned but open" fence for many years, most notably as personified by Sun's abortive effort to have Java accepted as a standard through the ISO PAS process, followed by its long-term maintenance through the Java Community Process. But while some would find the Java process to be an acceptable compromise, that is hardly a rousing endorsement for allowing such processes – especially in watered-down form – to proliferate.

III.   Applying Chaos Theory to Standard Setting

Perhaps it should not be a surprise that the wild and wooly world of blogging is not pursuing a staid path to standards development. But given the importance of RSS feeds for purposes that extend beyond the bloggers "art," it may be regrettable. RSS, by the way, stands for either "Really Simple Syndication" or "Rich Site Summary" -- division begins with the fundamentals on this standard.

As a result, an ongoing dispute in this area was widely reported in on-line news outlets as mainstream as CNET, and as (how to say) alternative as The Temple of the Screaming Penguin. At the center of the dispute is one David Winer, who until last summer was the gatekeeper of RSS, which had originally been created by Netscape and was now owned by Winer's UserLand. The most intense part of the tempest may have been sparked by a posting at (of course) at a Blog.

That entry, innocently titled "I Like Pie," was written by Tim Bray, a member of the W3C Technical Architectural Group. Bray was advocating consolidating competing RSS flavors into one specification, and bringing that version under the aegis of a standards organization. In what was attempting to be a balanced review of Winer, Bray included the remark: "I observe that there are many people and organizations who seem unable to maintain a good working relationship with Dave." With that, the online flamethrowers came out, and battle was joined.

At the same time, a competing standard (Atom) was being developed with the support of Google, IBM and various Blog tool vendors, offering further opportunities for division. On July 15, 2003, it was announced that the RSS specification had been conveyed by UserLand to the Berkman Center for Internet & Society at Harvard Law School. The specification became available under a Creative Commons license, as well as subject to the supervision of an Advisory Board. Not exactly a standards organization, but perhaps an improvement over the sole authority of a single individual.

Earlier this month, Winer suggested (yes, in a blog post) a rapprochement with the supporters of Atom, proposing that the two specifications be merged into a backwards-compatible new version, which would be placed under the supervision of an Internet Engineering Task Force (IETF) working group. The post begins:

> I'd like to make a constructive offer to the people who are working on Atom. And before stating the offer, let me say that I am open to counter-offers.

Certainly, negotiation by Blog is a new and novel way to build consensus around standards. And inevitably, such examples point out the fact that standards are too important to be produced by Brownian motion, with individual personalities jostling each other in chaotic fashion, and achieving useful, but fragile, results more by accident than design.

IV.   The Cult of Personality

The RSS example provides an apt segue into another disturbing trend in the development of modern commonalities, particularly in the world of open source: the idea that salvation can be found through the strong leadership of the Great Leader. While the most famous example of the Technical Visionary as Benevolent Despot is Linus Torvalds, the genealogy of this approach extends back (at least) as far as Robert Scheifler, who for many years in the late 1980s and early 1990s was the director of the X Windows Consortium. While that consortium had a board of directors and a large members' plenary, there was no question who was the decision maker when it came to technical matters.

As with the evolution of Linux, the X Windows software was well designed and widely implemented. In fact, the license agreement used to make it commercially available (created by Scheifler and this author) has been cited by Carl Cargill, the Director of Standards of Sun Microsystems, as the progenitor of the modern open source license.

But not all efforts led by an individual will be so effective. To state only the most obvious point, there are inevitable issues that relate to excessive dependency on a single individual, and not all individuals will be similarly effective even while they remain fully committed. Who knows what efforts, currently in process in some obscure corner of SourceForge.com, might achieve greatness if they were playing out on a wider stage, supported by the right cast and resources? There needs to be a way to have the best of both worlds – the creative ferment of open source, the supportive structure of a standard setting organization – and an easy and natural way for the best projects to progress from one platform to the other.

V.   A Call for Rational Consolidation

The late evolutionary theorist Stephen J. Gould is most famous for being the co-inventor of the concept of "punctuated equilibrium," which postulates that species evolution occurs in comparatively rapid bursts, interrupted by longer periods of stasis. Certainly, the world of standard setting seems to be in the middle of such a explosion of creative change today. The challenge for tomorrow is how to harness the creativity and promise of the various trends described above, and wrap them in an adequate envelope of process that will make these new experiments worthwhile additions to the standard setting toolkit.

Is it possible to domesticate each of the activities described above? Perhaps not. But there are some logical routes to consider before we abandon the quest:

- *Subcontracting:*   Certainly, there could be a discussion of the parameters within which subcontracting could appropriately occur. Perhaps criteria could be derived that would set preconditions for such activities, and failing which, SSOs would not accept the results.

- *Avoiding the Lion's Den:* Obviously, the Nancy Reagan approach is the most effective ("Just say no"). More realistically, asserting greater collective pressure to (at least) include minimum licensing requirements before adopters sign up would be an improvement. Best of all, of course, would be for vendors to avoid, whenever possible, implementing any specification with the potential to become a de facto standard, unless it has been turned over to an SSO.

- *Escaping Chaos:* It may be that there is a transient place for chaos in standards development, particularly in very new and creative areas. In such situations, it may be necessary to allow the eddies to swirl for a while before things settle sufficiently to see goals clearly. But there is danger in becoming dependent on the product of such a process, due to the myriad risks that attend it. The industry would be better served by generating an alternative solution through a trusted process than to casually adopt a specification that has too unreliable a future.

- *Fighting Fascism:* The world learned conclusively in the 1940's that succumbing to the temptation to blindly follow supreme leaders in the 1930s had been ill-considered. There is a place for great technical visionaries in standard setting, to be sure. That place is as the executive or technical director of a proper process that is designed to deliver dependable results, and to be able to survive the loss of the leader.

Ultimately, standard setting must be about process. It need not be about only a single process, but whatever process is employed must meet the same minimum standards of openness that have become well recognized through experience. Its time for the standard setting world to begin using a bit more self discipline in how it goes about the business of setting standards.

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