

ICT Standardization: Changing the World for a Better Tomorrow

John L. Hill
Sun Microsystems

Executive Summary

Undeniably ICT (information and communications technology) standardization is at a critical crossroads. The needs of the marketplace, in terms of timeliness, functionality and interoperability, once so well-served by traditional standardization processes, are not being met. Something must be done or the industry's progress of the past four decades will be lost. The risk is a return to market dominance by the very few wealthiest and most powerful providers. The single best hope is that the industry of ICT standardization become so healthy and responsive that standards-based products become preferred over proprietary products.

The question is not whether to fix the situation. It has to be fixed. The question is how to fix it. And for that there are wide differences of opinion. One company, Sun Microsystems, together with numerous partners, has begun identifying the specific problems, collecting and analyzing relevant data, and taking constructive action. This paper discusses what they are doing.

Two Days in December, 2002

Against the vocal opposition of many entrenched powers in the ICT standardization industry, the Information Technology Industry Council (ITIC), the US Department of Commerce (DoC) and Massachusetts Institute of Technology (MIT) held a conference. They invited CEOs and CIOs, together with other movers and shakers, to spend a day and a half addressing known problems of ICT standardization. The attendees came from industry, government, and academia. The true experts of standardization in the ICT industry addressed these influential people. The speakers' expertise spanned the subjects of organization and structure, the role of government in standardization, the economics of standardization, and intellectual property rights (IPR). To be sure, there were no universal agreements about how improvements in these subjects could be attained. There was unanimity, however, that improvements are needed, and fast.

This was no boring, typical conference. The audience felt so strongly about the issues

that 'Happy Hour' refreshments had to be delayed. Have you ever heard of such a thing happening at a conference on standards? Of course, not.

This conference used two innovative features. They are worth mention here because they show the depth of concern the sponsors have for the health and well-being of the ICT standardization industry. First, the hosts conducted a survey of the conference attendees. It was a simple, 20-question survey aimed at determining the collective opinions about the severity of the four subject/problem areas. An independent statistician analyzed the results and prepared a 150 page report. The results are important. They showed that all four problem areas are serious and deserve additional analysis. It is necessary to understand the roots of these problems in order to effectively address them. But what was really innovative is that now reliable data exists on which to build real solutions. We can now go forward, not as we usually do, armed only with anecdotes, but with data. Sure, the results represent the collective opinion of only the attendees. That is certain. But it is a start.

The second innovative feature is a book. Each attendee received a book of academic articles and case studies concerning ICT standardization. This, too, is a beginning. It is the beginning of gathering together the collective wisdom of ICT standardization experts. The beginning of a body of coherent knowledge, so necessary to maturing and healing the ICT standardization industry.

Somewhere in the not too distant past a folk philosopher said “Anyone can start things. Few complete them.” That is precisely what Sun is doing. They are building on the results of that conference, applying a staff who have more than 90 years ICT standardization experience, and helping evolve the changes so desperately needed. They are all realists. Some just dream more vividly than others.

Changing the World as We Know It

Sun is applying two tools to each of five problem areas, and they're doing it all over the world. Those problem areas, with a brief description follow.

- Organization and Structure: Organizations dominate the processes of ICT standardization. All these organizations face similar problems. They all need revenue to pay their bills. They all need to produce results the industry values. The downturn in the worldwide ICT markets have adversely affected all the organizations. Their collective well-being is a necessary prerequisite to a healthy ICT standardization industry. The key question is 'What should be done to improve these organizations?.'
- The Role of Government: Many governments seem to not address standardization consistently. Different agencies within the same government

participate in ICT standardization in different ways. Conflicts due to overlap, are often the result. Additionally, meaningful gaps (i.e., areas of non participation by governments) also exist. Every government should conduct a strategic assessment of their role in ICT standardization.

- Economics: It is a fact of standardization that members of organizations send real people to work for them in standardization activities. It costs those members real money, and often the people they send are scarce resources, valuable in other roles. It is important that these member organizations make sensible decisions about the manner and extent of their participation in ICT standardization. The relevant questions are 'What is a good strategy to follow in determining how best to participate in standardization?' and 'What should the business case for ICT standards look like?'
- Intellectual Property Rights: Today all ICT standardization organizations are working IPR issues. Patents, copyrights, trade marks, and trade secrets are all subject to different laws in virtually every country of the world. Compounding the problem is that each organization involved in standardization seems to have different IPR policies. Since a great many standardization organizations have members from multiple countries, what should be an individual organization's IPR policies?
- Education: ICT standardization is more than 40 years old while standardization in general is vastly older. The thing is, standardization, for all its age and importance, does not have the respect it deserves. Worldwide, there are only pockets of training programs, and very few academic courses that address standardization. It seems that standardization is career end point and not way point. The key questions here are 'Is education a profession?' And 'If so, how can we get there?'

Sun is using two tools to catalyze the addressing of these problems: conferences and workshops. Many conferences, based on the successful model of the December, 2002 conference, are happening and in planning stages. While most focus on individual problems, others address a few problems. While the timing, audiences, problems, and location all differ, these conferences have several common elements. Surveys will be conducted and analyzed in order to better understand the causes of the problems, and to build a body of standardization data. Books will be written to further consolidate the standardization knowledge. These books can then become course texts for training and education.

The workshops are the second tool being used. They will address focal issues such as the following:

- What are the best practices of standardization organizations for obtaining revenue?
- What are the roles of governments in ICT standardization?

- Is the use of standards increasing?

A View of the Future

It is impossible to predict, with complete precision and accuracy, what future ICT standardization processes will be. There are, however, certain things that are known. The processes will:

- be more responsive to the marketplace than today's processes.
- exhibit measurable improvements in:
 - organization and structure
 - role of governments
 - economics
 - intellectual property rights
 - education
- have been developed using the collective wisdom of persons and organizations that are uninvolved today.

The world of ICT standardization has needed these improvements for a long time. Only now has the thought leadership come forward with the resources to make them happen.