Licensing IP embodied in standards

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How should a standardization body such as the IEEE deal with patents and copyrights on technology essential to using a standard? A recent controversy within the World Wide Web Consortium (W3C, <http://www.w3.org>) over a Microsoft patent illustrates the kind of problem that can arise when intellectual property rights cloud users’ right of access to a standard. As yet, the IEEE has not developed a coherent policy on this issue; nor, apparently, has any other major standardization body.

Beginning in 1995, W3C sponsored meetings, as suggested in 1994 by Norwegian Web guru Hakon Lie, looking toward improving HTML (Hypertext Markup Language) by incorporating cascading style sheets into it. Cascading style sheets govern the format for a set of any number of Web pages with different URLs. Use of such style sheets permits a programmer to modify the format of a number of related Web pages at once simply by changing the content of the style sheet. The programmer thus need not go into the code of each individual page and change it to the new format. Moreover, use of style sheets decreases the amount of code that must be written for each page in the first place. The style sheet can specify the format, for example, of all headings within the page (say, 14-point Times Roman, italic) or all background colors or wallpaper, making it unnecessary to repeat the same codes each time. In addition, using style sheets decreases the amount of code that must be transmitted to end users, and style sheets can be cached, both of which lessen users’ downloading time. (For more information, see <http://www.w3c.org/Style/CSS/Buttons/>.)

The 1995 participants in the standard-setting process included representatives of Microsoft, one of whom was its standards spokesman, Thomas Reardon. Apparently unknown to Microsoft’s W3C representatives (so they claim), others at Microsoft were at the same time applying for and prosecuting a patent application that became US Patent No. 5,860,073 (the ‘073 patent). The face of the ‘073 patent, however, twice refers to the Hakon Lie proposals for cascading style sheets. It cites four w3.org Web pages referring to such style sheets, which may indicate some awareness at Microsoft of the W3C style sheet standardization project.

The ‘073 patent issued in January 1999 under the name, “Style sheets for publishing system.” The 35 claims of the patent are directed to “the use of style sheets in an electronic publishing system.” Claim 1, representative of the coverage in the ‘073 patent, appears in the box on p. 8.

Superficially, at least, claim 1 appears to cover the use of cascading style sheets. If the patent is valid, therefore, would-be users of the cascading style sheet standard will need to obtain licenses from Microsoft to use the standard. This led to
an outcry against Microsoft and W3C: “Another fine mess you’ve got us into, Stan!” Microsoft then made a strategic retreat; Microsoft’s Reardon sent W3C a letter saying that it was hurt by the seeming distrust of Microsoft’s motives:

While it is somewhat disconcerting that Microsoft’s motivations with the W3C would be questioned, we are more than willing to explain the current situation in the hopes that it will clear the air and result in other companies taking similar patent positions with the community’s interest in mind.

Microsoft added that as a matter of policy “we have typically committed to freely sharing our patent rights, for use in implementing a standard, with others who are willing to do the same.” The details of

continued on p. 82
Microsoft's licensing offer are set out in the “Microsoft's license offer” box on p. 83, which the reader is invited to try to decipher.

Reardon characterizes this as an offer of a “free and reciprocal” license under the patent. Apparently, that means that Microsoft will grant a royalty-free license to other software companies to use the '073 patent if they will grant a royalty-free cross-license to Microsoft under their technology (or promise not to assert their patents against Microsoft).

Several important points are unclear. What happens if the other company has no patents? What happens if the other company wants to pay for a license but does not want to grant a cross-license? What is the scope of the proposed cross-license? Does the other company have to license all of its software technology or just browser-related software technology to Microsoft on a royalty-free basis, or just that technology essential to using the cascading style sheet standard?

To place the question in a more understandable context, suppose that the IEEE develops a standard for cars. Among other things, the car standard embodies a patented Microsoft carburetor. Suppose now that you invent a new spark plug and patent it. Your spark plug is not part of the IEEE standard for cars. You decide to become a car manufacturer and want to conform to the IEEE standard. You need a patent license from Microsoft to use the IEEE-specified carburetor. Must you grant a royalty-free license to Microsoft on your patented spark plug? (Probably yes.) Is that license for all cars? (Probably no.) For IEEE-standard-compliant cars? (Definitely yes.) What if Microsoft decides it wants to use the same spark plug in lawn mowers and motorboats? (Probably, or at least let's hope, no.) How far Microsoft plans to go in demanding cross-licenses is unclear at this time.

There are other issues in the background of this controversy, whose discussion in detail would strain IEEE Micro's page budget. One issue is whether Microsoft's W3C representatives really were unaware of the patent application. And if they were, did Microsoft's personnel prosecuting the patent application know about the prospective standard and nonetheless fail to cause Microsoft's W3C representatives to disclose to W3C that the patent was pending? The references to the proposals for W3C standardization of cascading style sheets on the face of the patent suggest the latter. Conduct similar to that led the FTC to bring an unfair trade practice suit against Dell Computer in 1995. (Dell participated in the VESA VL-bus standard effort in 1992 without disclosing that it had a 1991 patent covering the bus. After computer manufacturers sold 1.4 million personal computers with the bus, Dell began demanding patent royalties. After the FTC filed its case, Dell settled by agreeing not to enforce the patent.

Another background issue is why did the PTO issue this patent? Tim Bray, coeditor of the specification for the W3C XML standard and a Vancouver-based independent programmer, sees the problem more as one of the PTO's failure to screen software patent applications properly than a Microsoft problem. (For other gripes of this kind, see <http://www.law.gwu.edu/facweb/claw/aharon.htm>.) Bray says that the '073 patent exemplifies the poor job that the PTO does in searching out software prior art. According to Bray, the patent is “laughably indefensible” because Bray and others developed and marketed software before 1990 that covered the same ground as the '073 patent.

But suppose, for argument's sake and contrary to the views of Bray and other naysayers, that the '073 patent is valid and effectively covers the W3C cascading style sheet standard. After all, if not this patent, it could be another one. And if not this standard, it could be another one. And if not W3C, it could be ANSI or even (gasp!) the IEEE. What should a standardization body do about patents and copyrights that bar access to using the standard? Should a standardization body such as the IEEE allow itself to be the sheep or goat herder that urges the herd into using such a standard, or that helps make it a necessary facility for some kind of application or end use?

Certainly, full disclosure on all sides should be a minimum requirement. Moreover, that the right hand didn't know what the left hand was doing—the excuse Microsoft proffered here as to the cascading style sheet standard and the '073 patent—should be immaterial. In some states—Virginia is an example—a seller or its agent has a duty to know the truth of the facts that it represents.

Say a real estate agent tells a buyer that a house has a dry basement. The buyer relies on that and buys the house. But it turns out that the basement of the house is an indoor swimming pool when it rains. In Virginia, the seller and its agent are liable to the buyer.

Organizations such as the W3C, ANSI, and IEEE should insist that company representatives in standard setting should warrant to the organization, on behalf of their employers, that they aren't selling the organization a gold-plated brick. That's why it didn't matter whether Dell's representatives to the VESA VL-bus group actually knew about Dell's patent covering the bus. When they told VESA that no Dell patents stood in the way of using the VL-bus standard, they had a duty to know what they were talking about. Similarly, if Microsoft represented to W3C that no Microsoft patents would stand in the way of use of the proposed standard, Microsoft had a duty to know that the representations were correct.

Therefore, the minimum requirement here should be a binding representation...
that patents and copyrights will not interfere with access to the proposed standard. Without such a representation, a body such as the IEEE should not let employees of possible patent owners help steer the body into adopting a particular standard that may run afoul of the owner’s patent.

But what do we mean or should we mean by “not interfere”? Does that necessarily mean royalty-free licensing? Probably not. That could chill the standard-setting process. It should be enough that participants meet one of two requirements. One would be correctly to represent that their company owns no relevant patents (or copyrights). If that turns out not to be true, the company should be obliged to do as Dell was required to do—make good on the representation. On the other hand, when the representative of a company knows that patents exist or are pending, the IEEE (or the applicable body) should take that fact into account before settling on a standard. Ordinarily, unless there is good reason to do otherwise, the applicable body should not allow a standard to be based on patented or copyrighted technology unless the company states that it will grant users of the standard licenses on reasonable and nondiscriminatory terms and conditions.

But what does that mean? Microsoft asserts that it is making just such an offer under the ’073 patent. The monetary price has got to be reasonable; it’s zero. “Those are the most liberal licensing terms out there,” Microsoft’s Reardon says. Are they? The cross-license also has a nonmonetary consideration. In both instances, the effect of requiring reasonable and nondiscriminatory licensing is to create a disincentive to creation and development of new technology. Investing in R&D to the results of which others will have relatively low cost access, if the technology is valuable, but for which they will pay nothing if the technology is unsuccessful, may not be the wisest allocation of resources. If it is not, the investment will not be made, and in principle less innovation will occur.

This factor applies both to the case where the cross-license is limited to the standard and where it applies to all uses. The difference is that in the first case there is the significant offsetting benefit to industry and the public of furthering standardization. In the second case standardization becomes a lever for divesting from an innovator technology for uses unrelated to the standard and its public benefits. Moreover, in the second case, the exaction of a cross-license on the licensee’s technology may be a tool for perpetuating a dominant firm’s dominance and for preventing any innovator from disrupting the market structure by introducing innovative technology. That kind of conduct has in the past led to antitrust prosecutions. (The case of U.S. v. GE in which GE was held guilty of monopolizing light bulbs is an illustrative example. The light bulb monopolization and cartel are amusingly described in Gravity’s Rainbow by Thomas Pynchon.)

What this adds up to, in the end, is that it probably is reasonable for Microsoft or a company in its position to demand a reciprocal license, but…. The “but” is that license should be limited to technology needed for implementing the given standard (for example, cascading style sheets) and limited to that use. But it is not reasonable, and the license is not on “reasonable” terms and conditions, for Microsoft or a company in its position to demand an unlimited reciprocal license.

A wise intellectual property policy for the IEEE and other standardization organizations would be to recognize these considerations and embody them in the organization’s requirements as to licensing technology embodied in a standard.

Look for a rejoinder(s) in the September/October issue to the position I’ve taken here. Micro will invite IEEE, ANSI, and W3C representatives to state their positions.