Copyrighting Standards

Should standards be eligible for copyright protection?

Controversies over intellectual property (IP) rights in standards have been common in the past decade. Thus far, IP and standards disputes have mainly been about patents. A new wave of controversies may be on the horizon, this time focused on copyrights claimed by standard-setting organizations (SSOs) as to standards produced by committees formed by or under their aegis, especially when governments mandate use of these standards. These disputes affect and constrain computing professionals when they design software applications for healthcare, e-commerce, or any other domain where standard classifications, identifiers, or code sets are required or desirable for compliance or interoperability.

This column will question whether standards, especially those mandated by the government, should be eligible for copyright protection. It will review several lawsuits that have challenged copyrights in standards with mixed success. Two 1997 appellate court decisions upheld copyright protection in standards. The reasoning of more recent appellate court rulings, as well as policy considerations, cast doubt on the soundness of recognizing copyrights in standards.

Challenge to AMA Code

The American Medical Association (AMA) and the American Dental Association (ADA) claim copyrights in codes of standard terminology for medical and dental procedures. The codes consist of three elements—a standard name for a procedure, a number assigned to represent it, and a brief description of the procedure—organized into logical groups so that users can locate the appropriate code quickly and easily. The associations periodically update these codes to take into account developments in the medical and dental fields. Use of the AMA code has been mandated by the U.S. government's Health Care Financing Administration (HCFA) when filing claims for Medicare and Medicaid reimbursement.

Practice Management Information Corp. (PMIC) wanted to publish the AMA code. The AMA threatened legal action, so PMIC asked a court to declare that the AMA code had become uncopyrightable after HCFA mandated its use, or alternatively, that the AMA misused its copyright by an exclusive license that HCFA forbade the agency to use "any other system of procedure

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nomenclature…for reporting physicians' services." A trial judge issued a preliminary injunction against PMIC's publication of the AMA code. The Ninth Circuit Court of Appeals affirmed in part and reversed in part.

PMIC's invalidity argument rested mainly on Supreme Court case law about the uncopyrightability of judicial opinions and statutes. In *Banks v. Manchester*, the Supreme Court decided that judicial opinions could not be copyrighted. The Ninth Circuit distinguished *Banks* from *PMIC v. AMA*, saying that *Banks* involved government employees who didn't need copyright incentives to write opinions. AMA, by contrast, claimed copyright incentives were important to it. *Banks* also rejected copyright claims in judicial opinions on due process grounds (that is, on a theory that people should have unfettered access to the law). There was, however, "no evidence that anyone wishing to use the [AMA] code has any difficulty getting access to it" and AMA has "no incentive to limit or forego publication" of the code. Moreover, PMIC was "not a potential user denied access to the [code] but a putative copier wishing to share in the AMA's statutory monopoly."

Yet the Ninth Circuit lifted the injunction issued by the trial court because it agreed with PMIC that AMA had misused its copyright by entering into an exclusive licensing deal with HCFA. The misuse did not invalidate the copyright, but limited AMA's right to enforce the right until the misuse had been "purged." (The AMA sought to purge the misuse by proposing a revision of the contract to omit the exclusivity term. As a practical matter, the misuse will be difficult to purge because of investments already made in using the standard to comply with HCFA regulations.)

On appeal, PMIC belatedly made an argument that the AMA code was uncopyrightable as an industry standard and systematic organization of information. Section 102(b) of U.S. copyright law states: "In no case does copyright protection…extend to any idea, procedure, process, system, method of operation, principle, concept or discovery, regardless of the form in which it is…embodied in such work." PMIC pointed to cases that had held industry standards to be ineligible for copyright protection. The AMA itself had characterized its code as a "system of procedure nomenclature."

Although PMIC's belated arguments have merit (explained later in this column), the appellate court rejected them without explanation in a footnote. (Courts tend to perceive late-made arguments as acts of desperation akin to a "Hail Mary" pass in football.)

Challenge to ADA's Code

Shortly after *PMIC*, the Seventh Circuit Court of Appeals reviewed a challenge to the copyright in ADA's Code of Dental Procedures and Nomenclatures. Delta Dental published a book containing most of the ADA nomenclature and associated numbers, although not the procedure descriptions. ADA asked the court for an injunction to stop Delta from publishing the code and money damages for past infringements.

The trial judge ruled against the copyrightability of the ADA code, although recognizing that compilations generally qualify for copyright protection if there is creativity in the selection and/or arrangement of information. ADA's compilation was comprehensive, however, precluding creativity in selection. Although the code's arrangement was creative, it was systematic and highly useful, thereby unprotectable under section 102(b). The code was, moreover, the work product of a committee, not an expression of the judgment of an author, and Delta had participated in the drafting of the ADA standard, which further supported its right to use the ADA code.

The Court of Appeals disagreed. In its view, ADA's classification of dental procedures was creative enough to qualify for copyright protection. "Creativity marks the expression even after the fundamental scheme has been devised." Because there are many different ways to organize types of dental procedures—"by complexity, or by the tools necessary to perform them, or by the anesthesia employed, or in any of a dozen different ways"—the way chosen by ADA was a creative expression not dictated by functional considerations.

The appellate court thought

ADA's "numbering system" (its term) was creative because ADA assigned numbers to procedures that were five digits long (when it could have made them four or six digits long). The first number was always a zero, in order to leave room for expansion of the code as more procedures were developed or discovered. The second and third numbers represented a particular grouping of procedures, and the remaining two digits identified the specific procedure associated with that number. To Delta's argument that section 102(b) rendered this "system" unprotectable, the court responded that the code "is a taxonomy that can be put to many uses. These uses may or may not be or include systems," but the code itself was not a system.

The appellate court was so taken with the creativity of the ADA code that it decided the name of each procedure and the number assigned to it were original works of authorship entitled to copyright protection. The court distinguished between "discovered facts" and "original facts." The former were unprotectable under the Supreme Court's decision in *Feist Publications v. Rural Telephone Service* wherein the Court ruled that facts were unprotectable "discoveries" under section 102(b). The Seventh Circuit decided that original facts should be treated differently.

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Challenge to the Southco Numbering System

Southco, a manufacturer of products such as latches, handles, and rivets, sued its competitor, Kanebridge, for copyright infringement because the latter's catalog reproduced product names and numbers from Southco's copyrighted catalog. Southco claimed these names and numbers were copyrightable as the product of skilled judgment, and since there were many different ways to organize such a taxonomy, there was no "merger" of idea and expression to disqualify its work from protection.

Writing for the Third Circuit Court of Appeals, Judge Samuel Alito (now a Justice of the U.S. Supreme Court) held that Southco's compilation was an unprotectable systematic compilation of information under section 102(b). Insofar as Southco claimed copyright in the individual product names and numbers, the court found them too small in grain size to be protectable by copyright, citing the longstanding practice of excluding short phrases and titles from copyright protection.

In developing this system, Southco "had to identify the relevant characteristics of the products in the class (that is, characteristics that would interest prospective purchasers); it had to assign one or more digits to express each characteristic; and it had to assign a number or other symbol to represent each of the relevant values of each characteristic." This did require judgment, but "[o]nce these decisions were made, the system was in place and all of the products in the class could be numbered without the slightest bit of creativity."

The unprotectability of systems was first announced by the Supreme Court in *Baker v. Selden*. Selden's widow charged Baker with copyright infringement for copying sample ledger sheets from Selden's book. The Supreme Court ruled that copyright protected Selden's explanation of the bookkeeping system, but not the system itself or ledger sheets implementing it.

Judge Becker concurred in *Southco*, pointing out that industry standards are often excluded from copyright protection, such as in *Mitel v. Iqtel* decided by the Tenth Circuit Court of Appeals. Mitel manufactured call controllers, "computer hardware that enhances the utility of a telephone system by automating the selection of a particular long distance carrier and activating optional features such as speed dialing." It

developed and published a set of four-digit command codes for these call controllers.

Mitel claimed copyright in the command codes as creative work. Iqtel copied the Mitel command codes after concluding that "technicians who install call controllers would be unwilling to learn Iqtel's new set of instructions in addition to the Mitel command codes and the technicians' employers would be unwilling to bear the cost of additional training." The Tenth Circuit concluded that the Mitel codes were unprotectable by copyright law because they had become industry standards.

User investments in a standard constrain the design choices of subsequent users in much the same way that Iqtel felt constrained by Mitel's command codes.

Analysis

In all of the four cases discussed here, the copyright claim rested on the creativity in deciding to pair a number with the name of a phenomenon in accordance with an overall system for efficiently organizing information for a specific purpose. Systems, by their nature, consist of interdependent, interrelated parts that are integrated into a whole scheme. Taxonomies, by their nature, are systematic classifications of information that group subcomponents into logical categories based on similarities of this cluster of phenomena as compared with that. Section 102(b) excludes systems and their component parts from copyright protection.

AMA and ADA codes were designed to facilitate efficient record-keeping, billing, and other information-processing functions (for example, computerized processing of insurance claims). The AMA's stated purpose in developing the code at issue in *PMIC* was "to provide a uniform language that accurately describes medical, surgical, and diagnostic services, and thereby serve as an effective means of reliable nationwide communication among physicians, and other healthcare providers, patients, and third parties." The *ADA* decision states that "the standardization of language promotes interchange among professionals." The Southco and Mitel codes were also designed to facilitate effective communication.

Industry standards serve an important function in society by allowing everyone in that industry or field to use the standard for effective communication. The interoperability case law, of which *Mitel* is one instance, has consistently ruled that the design of computer program interfaces may be the product of human skill and judgment, and thus might seem to qualify for copyright protection. However, once an interface has been developed, the parameters it establishes for the effective communication of information from one program to another constrain the design choices of subsequent programmers. The interface thus becomes an unprotectable functional design.

User investments in the standard facilitate communication. The First Circuit Court of Appeals dismissed Lotus's "look and feel" lawsuit against Borland in part because users had made significant investments in Lotus's macro command language, making it a de facto industry standard:

[U]sers employ the Lotus menu command hierarchy in writing macros. Under the district court's holding, if the user wrote a macro to shorten the time needed to perform a certain operation in Lotus 1-2-3, the user would be unable to use that macro to shorten the time needed to perform that same operation in another program. Rather, the user would have to rewrite his or her macro using that other program's menu command hierarchy. This is despite the fact that the macro is clearly the user's own work product. We think that forcing the user to cause the computer to perform the same operation in a different way ignores Congress's direction in section 102(b) that "methods of operation"

are not copyrightable. That programs can offer users the ability to write macros in many different ways does not change the fact that, once written, the macro allows the user to perform an operation automatically. Judge Boudin concurred:

Requests for the protection of computer menus present the concern with fencing off access to the commons in an acute form. A new menu may be a creative work, but over time its importance may come to reside more in the investment that has been made by users in learning the menu and in building their own mini-programs—macros—in reliance upon the menu. Better typewriter keyboard layouts may exist, but the familiar QWERTY keyboard dominates the market because that is what everyone has learned to use.

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Other Considerations

Reinforcing the conclusion that copyright law should not protect standards such as the AMA and ADA codes are several other considerations. First, SSOs themselves generally do not develop the standards in which they claim copyright. Rather, they generally rely upon volunteer service of professionals in the field to develop standards and require these volunteers to assign copyright interests to the SSOs. The community development of a standard is a reason to treat the standard itself as a shared resource

Second, SSOs generally have ample incentives to develop standards for use by professionals in their field. While the AMA and ADA certainly charge substantial sums for the standards they promulgate and use the funds to support other activities, it is simply not credible to claim they would stop developing standard nomenclature without copyright. The fields they serve need the standards for effective communication.

Third, the Internet and the Web now make it very inexpensive and easy to disseminate standards. Some users of a successful standard would be willing to invest in putting the standards online for all to use.

Fourth, once a standard has achieved success by widespread adoption, this success provides an opportunity for the SSO to charge monopoly rents for use or access to the code. In 2003, for example, the W3C, among others, objected to an ISO policy requiring software developers to pay fees for incorporating ISO country codes into their products.

Fifth, SSOs have incentives to invest in persuading governments to mandate use of their standards. Another legal decision illustrates this temptation. The Southern Building Code Congress (SBCC) drafted a model building code and promoted its adoption by local governments. Under the deal SBCC offered, local governments got royalty-free rights to use the code and a small number of copies of the code to enable public access. SBCC charged anyone else who wanted a copy of the code or access to it a substantial fee. Peter Veeck purchased a copy of the SBCC code and posted the contents on the Web. SBCC sued for copyright infringement.

The Fifth Circuit Court of Appeals decided that once certain small towns in Texas had adopted the SBCC code as law, there was no effective way to express that law except through the literal words of the SBCC code. The idea of the code and its expression had, the court concluded, "merged" upon its adoption as law, and no copyright protection remained in the adopted code because of the public interest in access to the law. The *Veeck* decision calls into question the *PMIC* ruling about the validity of the AMA code after the government mandated its use.

The credibility of SSOs depends not only on their being able to produce sound standards, but also on producing standards in which the SSOs do not have such a strong financial interest that they succumb to the temptation to abuse the standards process by making the standards into a cash cow that must be purchased by anyone affected by the standard. C

Pamela Samuelson (pam@sims.berkeley.edu) is the Richard M. Sherman Professor of Law and Information Management at the University of California at Berkeley.

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