market when Apple threatened to sue it—apparently on a “look/feel/taste/smile” legal theory. DRI may not just have been cowed by Apple’s might; there may be something to the theory. But what is it?

The problem in answering that question comes from the mercury-like quality of the legal theory. It is very difficult to discern what protectable interest is being asserted here. For example, Cadam objected to the defendants’ saying that their computer program was “CADAMish” or “CADAM-compatible.” But if that statement is the truth, or is at least within the bounds of acceptable puffing, the defendants’ claim is just legitimate competition. The public is entitled to buy cheaper “CADAMish” computer programs if it wants them. Surely Cadam has no exclusive right to the idea of its computer programs under established principles of copyright law; it owns only the expression of its ideas. Being “CADAMish” and CADAM-compatible is only sharing the idea.

Particular graphic imagery may be copyrightable, but it is doubtful that ways to format data or present user options are protectable. The Supreme Court has held bookkeeping formats uncopyrightable. A lower federal court has held that formats for computer program input data are uncoprightable. To a large extent, these things are functional aspects of the computer program, as some icons or menus may be. When there is only one or a few good ways to accomplish a desired result, the copyright law will not confer an exclusive right on anyone to that way or one of those few ways. Thus, it is frequently observed that Visi could not have secured a copyright monopoly over the spreadsheet format.

The larger question

The look/feel/etc. controversy may be seen as part of a larger controversy over including within the protection of a copyright in a computer program various aspects of the ideas or concepts utilized in writing the computer program. In Evergreen Consulting, Inc. v. NCR Comten, Inc., in the Los Angeles federal district court, IBM and NCR struggled over whether copyright law gave IBM any monopoly over the selection of algorithms in a communications software package and the “logic, structure, and flow” of the programs, as well perhaps as the instruction set involved in the code. This case was settled, however, before the court decided the case, and the parties agreed to seal up the record and keep it a secret.

In the Whelan case (see IEEE Micro, MicroLaw, April 1985, pp. 88-89) the court upheld claims on how a computer program operated, although the accused computer program was written in a different language than that of the copyrighted program. There is a microcode copyright-infringement controversy going on now between NEC and Intel (see IEEE Micro, op. cit.).

This controversy continues because a company such as Cadam often has to make a very heavy front-end investment in market research and in trial and error in devising a readily comprehended and acceptable (“user-friendly”) format for a software package. Unless the company invests much of its resources and it is as if it is putting a large amount of money into a lottery ticket that it is not likely to win.

A company often has to make a very heavy front-end investment before developing user-friendly software.

in that position can look forward to an ample head-start period, during which to recoup and profit on its initial investment, it may well lack the “inventive incentive” to invest in innovation. The public would ultimately be the loser if investment in innovation was significantly deterred because of lack of protection against “piracy” or misappropriation by latecomers.

But to base the granting of protection on that theory, we must first ask such questions as:

- Is what we will have to pay to get an increment in innovation more than we are willing to pay (what is it worth to us)?
- What effects will the new protection have on the efforts of others to innovate?

We have also taken into account that we will probably have to pay all existing producers, not just those who produce the further increment that we want to call forth, to put into place the reward system that will call forth the further increment. (That is, the total cost of royalty rate R is Rx, not Rx, where dx is the increment in innovation called forth by decreeing royalty R.)

Where does all this leave us? Probably with the suspicion that this is a job for Congress rather than the courts, and thus a job for a new legal mechanism rather than existing copyright law. If the existing copyright law traded off and balanced satisfactorily all the interests at stake, we would have a pure case of serendipity, for the copyright law was never designed with these ends in mind. It was designed to satisfy the needs of book and music publishers, and to a lesser extent those of authors, composers, and painters—not the needs of software creators, marketers, and users.

In the meantime, we can look forward to the creativity of lawyers in imagining and then asserting new copyright-based rights in the look, feel, taste, and smell of software. Don’t expect it to stop unless Jack Cade’s advice about lawyers is taken.

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