

PROTECTING RIGHTS IN USER INTERFACE DESIGNS

BEN SHNEIDERMAN

Sacrificing individual rights in the hopes of benefitting the public good is a tempting but often misguided pursuit. I believe that protecting individual rights (civil, voting, privacy, intellectual property, etc.) is usually the best way to benefit and advance the public good.

The current policy debate rages over the merits of offering intellectual property protection to user interface designs. While most commentators agree that copyright is appropriate for books, songs, or artwork, some are reluctant to offer such protection for user interfaces. These critics argue strenuously that intellectual protection for user interfaces is "monopolistic" and that it would have a destructive effect on the public good by limiting dissemination of useful innovations and inhibiting standardization. These critics claim that the traditional individual and corporate rights to creative works should be denied to user interface designers.

This position deserves some respect on its merits and because it is quite widely held, but I strongly disagree. I am now ready to speak out in favor of protecting individual rights as the more effective and durable path to increasing the public good. My insight to these issues has been enriched by participation as an expert witness for the plaintiff in a major case now before the courts. I had initially rejected invitations to participate by lawyers from both sides of the case. Then during 1989, I more clearly realized the importance of fighting for user interface designers as creative people who should have the right to protect their creative work.

Background

Advocates of public domain software and shareware have benefitted the computing community and I hope they will

continue to do their work. However, I am a strong believer in recognizing, rewarding, respecting, and protecting individual creative activity in music, film, poetry, writing, drawing, and user interface design. Similarly, I support protection of functional devices (mechanical, optical, electrical, etc.) by patent. Creative works are extensions of ourselves and, like our children, deserve protection.

I believe that participants in this debate are all in favor of increasing the public good, but the issue is whether individual rights must be given up. Advocates of state-controlled economies, communal utopias, restrictive zoning, and stop-and-search laws also have argued that individual rights must be given up to increase the public good, but often these arguments are short-sighted. Although there are compelling examples on both sides of the issue, I think that the benefit to the public good is usually maximized by allowing individuals and corporations to protect their efforts.

The Case For Protection

If individuals or corporations have invested time and resources to produce a creative work, they should be able to secure legal protection. This encourages innovation in at least two ways.

First, it offers the promise of honor and financial reward plus the knowledge that they can influence who uses their work and how it is used. If I write a book or design a user interface, I want to know that my name will remain connected with the work, that I will be asked permission for its use, that I can influence the context of its proposed use, and that I can ask compensation if I so wish. I regularly grant permission to use my works for free, but in other situations I feel entitled to ask for payment. Financial

remuneration is often necessary to continue development, refine the creative work, and adequately market a product.

Second, new user interface designers are compelled to push forward the state of the art to gain similar recognition and reward. If user interfaces are unprotectable, then designers can ripoff the currently fashionable design. This can lead to acceptance of the lowest common denominator while marketeers pat themselves on the back in the belief that they are promoting standardization. But this lazy approach undermines the public good in that there is little pressure or incentive to push the technology forward with innovative solutions.

Challenging the Fear-Mongers

Critics of protection paint a fearsome portrait of vicious corporations and monopolistic individuals, but these scare tactics seem exaggerated and naive. Individuals and companies that produce creative works want to see their creations put to work and are usually eager to negotiate licenses that permit access for a fee. This is quite well accepted even in the gentle world of folk music, but also in the competitive worlds of film making and book publishing.

It does seem ironic that critics of protection publish their articles in copyrighted journals. Also the professional societies (ACM, IEEE, etc.) have moved vigorously to assert their copyright over written materials and more recently for electronically published sources.

Allowing individuals or companies to assert ownership stimulates them to disseminate their works, rather than keep them secret for as long as possible. Without protection, innovators might be reluctant to share their developments until products were distributed. With protection an innovator can show a novel design and openly seek partnerships.

Of course there will be extreme anecdotes told by both sides and strong claims made in legal briefs, but overall I vote to pursue the market-oriented policies that have more often than not been generative of innovation. The user interface industry is growing up fast and like the rock music superstars, we must also learn to live with the lawyers and the legal system.

The lawyers, courts, and judges are not malicious or poorly informed, but they do have a different set of rules, that have been established over decades. The sooner we learn the rules, the more effective will be our use of them to guide and promote innovation.

Are User Interfaces Different From Other Expressive Works?

Copyrights are traditionally applied to creative works such as books, poems, songs, or movies that have expressive aspects. Copyrights are secured easily and last for the author's lifetime plus fifty years. Infringement is established as "substantial similarity as judged by ordinary observers". Patents are traditionally applied to inventions such as staple guns, telescopes, motors, and radios that are functional. Patents take several years to obtain and last 17 years, but protection is strong. Neither protection applies to principles of nature or generic ideas.

Even critics recognize that the user interfaces for video games, children's entertainment software, and educational software are expressive and that they are copyrightable.

Designers of business computer applications such as word processors, spreadsheets, database managers, etc. have become more attentive to the expressive aspects of their user interfaces. These interfaces now have eye-catching visual images, engaging animations, colorful decorations, appealing sound effects, and playful aspects (cute icons, 3-D, texture, shading, etc.) forming a harmonious ensemble.

While the line between video games and business applications is not clear and the line between expressive and functional is not always clear, I believe that the expressive aspects of user interfaces should be protectable by copyright or possibly some new form of intellectual property protection.

Increasingly, I find it possible to separate the user interface from the functional components of an application. We will have to rely on the progress of our technology of specification and on legal precedents to help chart a course. This is a complex issue and clean solutions are not to be expected, but that does not discourage me from pursuing this path. I will stand up to protect individual rights.

In some cases it is clear that infringement has occurred (exact copying), and in other cases the jury or judge will listen to the opposing parties and then make their judgment, just as they do for songs or movie scripts. Cooperation by licensing and mediation when there is conflict seem preferable, but when an adversarial situation arises we have traditionally relied on the courts for resolution and precedents. I prefer the courtroom, with all its burdens and expenses, to the Wild West environment of Ripoff City.

Is A New Form Of Intellectual Protection Needed?

Where there is an expressive component to a user interface, copyright seems appropriate. Where the boundary between expression and function is fuzzier we may need a new form of protection. I propose that researchers, developers, lawyers, and legislators explore the need for new forms of protection that would:

- Permit rapid filing and dissemination of novel works (more difficult than copyright, but easier and quicker than patent)
- Contain a clear statement of what is protected
- Offer a limited time of protection (maybe 8-10 years)
- Encourage licensing for reasonable royalties
- Support a reasonable standardization process

Conclusion

Members of the user interface community should be aware that important issues are at stake in these debates and court cases. It will be helpful to be informed so that they can sort out the rhetoric and participate intelligently and constructively.

A cooperative world in which partnership naturally leads to respect for individual accomplishments is a great dream, but my experience leads me to believe in the benefit of proper legal protection. I recommend support for intellectual property protection for user interfaces in the belief that individual rights are the foundation for a more progressive society. At the same time, let's honor user interface designers with our own form of Emmys, Oscars, and Pulitzer Prizes.