Constructing an Intellectual Property Regime That Promotes Both Innovation and Social Welfare

A Delicate *Balance*

BY AARON STEELMAN

In January, the Supreme Court considered what the Framers of the United States Constitution had in mind when they granted Congress the power "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." In particular, the Court had to determine what the Framers meant by the term "limited."

The country's first intellectual property laws established copyright terms of 14 years, renewable once. Over time, those terms have been extended 11 times, most recently in 1998, when Congress passed the Copyright Term Extension Act (CTEA).

The CTEA, often called the "Sonny Bono Act" after the late congressman from California who championed the law, added 20 years to all copyright terms. That means copyrights are now protected for the lifetime of a work's creator plus 70 years following death, and copyrights held by corporations are good for 95 years. After a copyright expires, the property enters the "public domain."

Eric Eldred, a New Hampshire publisher who posts on his Web site literature that has entered the public domain, challenged the law, arguing that the CTEA sets terms that are neither "limited" nor necessary to promote the "Progress of Science and useful Arts." What it did instead, he claimed, was give an unfair monopoly grant to a few copyright holders at the expense of millions of potential consumers. In other words, Walt Disney Co. would benefit from the CTEA, because without copyright extension some of Disney's most famous images, such as Mickey Mouse, would have entered the public domain. But people who would like to read, say, an out-of-print but still copyrighted Robert Frost poem would be hurt, because Eldred and other online publishers would not be allowed to post it electronically.

The Supreme Court wasn't persuaded by the case presented by Eldred and his attorney, Lawrence Lessig of Stanford Law School. It upheld the CTEA by a vote of 7-2. But the issue of how to design an optimal intellectual property rights regime is still a pressing issue for economists and legal scholars.

"For as long as laws have aimed at protecting intellectual property, disputes have raged over which work to protect, for how long, and to what extent," write Stanley Besen and Leo Raskind in an introduction to a symposium on intellectual property published in the *Journal of Economic Perspectives*. And while economists may differ over the details, most agree in principle "that economic efficiency requires government support for innovative and creative activity."

There have been some notable dissenters, though. In 1934, the distinguished British economist Arnold Plant

STANFORD LAW SCHOOL

Stanford University law professor Lawrence Lessig argued before the Supreme Court that the Copyright Term Extension Act was unconstitutional.

argued against both copyright and patent protections. His case was straightforward: Economists generally oppose state grants of monopoly privilege, so why should intellectual property be any different? The "evils of monopoly," Plant maintained, extend to all spheres of economic activity, and "the science of economics as it stands today furnishes no basis of justification" for exceptions to that rule.

Many authors are not driven by profit, Plant argued, and thus copyright protection provides no incentive to them. It only drives up the cost of their works. "There is ... an important group of authors who desire simply free publication; they may welcome, but they certainly do not live in expectation of, direct monetary reward. Some of the most valuable literature that we possess has seen the light in this way. The writings of scientific and other academic authors have always bulked large in this class," he wrote. "For such writers copyright has few charms. Like public speakers who hope for a good Press, they welcome the spread of their ideas. Erasmus went to Basle in 1522, not apparently to expostulate with Frobenius for daring to print his manuscript writings, but to assist the printer in the good work. The wider the circulation, the more universal the recognition the author would receive."

Still, Plant did concede that more "authors write books because copyright exists, and a greater variety of books is published." However, "there are fewer copies of the books which people want to read." He advocated a gradual elimination of copyright protection. The first step would be to reduce the copyright term from the life of the author plus 25 years (the standard at the time Plant was writing) to five years after first publication. Such a change would help to "ensure low prices for books as early as possible after the fate of the first edition has revealed that a demand exists for them."

In the 1950s, economist Fritz Machlup, then of Johns Hopkins University, expressed ambivalence about the utility of the patent system. No one could "possibly state with certainty that the patent system, as it now operates, confers a net benefit or a net loss upon society," he stated. And if one does not know whether a system is good or bad, the safest policy "is to 'muddle through' — either with it, if one has lived long with it, or without it, if one has lived without it. If we did not have a patent system, it would be irresponsible, on the basis of our present knowledge of its consequences, to recommend instituting one. But since we have had a patent system for a long time, it would be irresponsible, on the basis of our present knowledge, to recommend abolishing it."

Similarly, Princeton University economist Robert Hurt registered his doubts about copyright protection in a 1966 article for the *American Economic Review*. The "traditional assumption that copyrights enhance the general welfare is at least subject to attack on theoretical grounds; the subject certainly deserves more investigation and less self-righteous moral defense."

Recently, economists Michele Boldrin of the University of Minnesota and David Levine of the University of California at Los Angeles have taken up this challenge and developed a model that they argue demonstrates that "current legislation on copyrights, licensing, and patents plays a harmful role in the innovation process." In addition to the example of the aspiring

UNIVERSITY OF CHICAGO LAW SCHOOL

Richard Posner of the University of Chicago maintains that a system of "indefinitely renewable copyrights" would work more efficiently than the current regime.

author cited by Plant, they discuss basic scientific research, open source software development, and innovation in the fashion industry, all of which continue to proceed without intellectual property protection. Moreover, they question whether many musicians would stop composing, producing, and recording music should the copyright regime be eliminated. Some economists have argued that Boldrin and Levine's model makes unrealistic assumptions. Yet most agree it is a serious challenge to mainstream thinking on the law and economics of intellectual property. (For a nice discussion of Boldrin and Levine's paper and its critics, see Douglas Clement's article "Was Napster Right?" in the September 2002 issue of *The Region*, published by the Federal Reserve Bank of Minneapolis.)

And if there is one figure who could be said to represent such mainstream thinking it is Richard Posner, a lecturer at the University of Chicago Law School and judge on the U.S. Court of Appeals for the Seventh Circuit. Posner, along with his Chicago colleagues Ronald Coase, Richard Epstein, and William Landes, essentially founded the modern law and economics movement, which attempts to use the findings of social science to make the law more efficient.

To Posner, property rights are purely instrumental. They are valuable because, in general, they enhance social welfare. But when the cost of creating or enforcing a particular property right is especially high, he contends, that right should be withheld. Consider the extreme case of a hiker who has strayed from his course and is without food or shelter. If he stumbles along a vacant house and breaks in to save his life, in general the state will not prosecute him. The benefit of saving his life outweighs the cost inflicted on the property owner. Now consider a more mundane case: parking lots at shopping malls. Those lots are generally privately owned and the owners could, by right, charge people to park in them. But they usually don't. The reason: It is better for the shopping malls' merchants to effectively treat their parking lots as common pastures, because it encourages more people to visit their stores than if there were a fee to park.

Such a principle sometimes applies in the case of intellectual property too. Consider music. People often make tapes or burn compact discs of officially released music to give to their friends. Technically, this is a violation of copyright. But the music industry hasn't aggressively prosecuted people who engage in this practice. (The industry has, of course, gone after file-sharing Web sites that make such music available to literally millions of potential listeners, though.) The reason: The cost of prosecution is just too high. It is hard to track down all the unauthorized tapes and burned CDs out there. And, what's more, those tapes and burned CDs often create a following for an upstart band. The recipients may decide that they really like what they hear and go out and buy more of that band's official releases. Indeed, this is precisely what happened in the case of several "alternative rock" groups who played mainly on college campuses, before tape-swapping made them national figures. It also is true of J. R. R. Tolkien's brilliant trilogy, *The Lord of the Rings*. In the 1960s, when the books were acquiring cult status, especially in England, unauthorized copies made their way onto the market. Many enthralled readers eventually turned to the real deal and bought the authorized versions. Whether Tolkien, his estate, and his publisher were made better off by the distribution of illegal copies is unclear, but a good case could be made that they were.

Indeed, such examples have bolstered the arguments of people who wish to see intellectual property protections eliminated. One line of argument goes like this. The use of intellectual property — unlike physical property — does not reduce the value of its use by another. Put more formally, the marginal cost of intellectual property — the expense of adding one more user — is very low and can even be negative in certain cases. So why not make property available to anyone who wanted to use it, since optimal output is generally achieved by equating price to marginal cost? (A monopoly, in contrast, typically sets price above marginal cost, resulting in "too little" output.)

Posner acknowledges the charm of this argument. But he says that "such a policy would be disastrous." It would, he argues, "kill the incentive to create the intellectual property in the first place, outside of the relatively rare cases in which the creators have powerful nonmonetary incentives to create such property, or in which its creation is financed other than by sale or lease of the property (by taxation, for example, or charitable donation — such as the patronage of authors by wealthy people, in the old days.) We need not suppose that most creative people are greedy to realize that if they cannot obtain a pecuniary benefit from producing intellectual property, they will not be able to finance the costs (including the costs of their time) required to produce it."

Still, this does not mean that the duration of copyrights and patents should be boundless. There are many reasons why this is true. One of the more significant is the "tracing problem." Unlike physical property, intellectual property is not visibly distinct. It is relatively easy to say where one piece of land ends and another begins. But it is much harder to do the same with ideas. Ideas, by their very nature, build on one another in a cumulative process. Great writers, musicians, and scholars usually

don't come up with their thoughts out of thin air. They are inspired and influenced by their predecessors.

Posner puts the tracing problem this way: "If copyright were perpetual, James Joyce or his publisher would have become embroiled in litigation with the heirs of Homer over whether *Ulysses* infringed *The Odyssey*, and Leonard Bernstein with the heirs of Ovid over whether *West Side Story* infringed Pyramus and Thisbe (not to mention *Romeo and Juliet* and *A Midsummer Night's Dream*, themselves arguably infringements of Ovid's story). If patents were perpetual, heirs of Leonardo da Vinci would be litigating over rights to basic aircraft technology."

Another reason to limit copyright protection is that doing so may increase the "distribution and hence use of intellectual property." Indeed, this is the crux of the argument made by Eldred and by 17 economists (including five Nobel laureates) who filed a "friend of the court" brief, arguing that the CTEA was economically inefficient.

Extending copyright by 20 years, the economists maintained, provides little incentive for the production of new works. The reason: The further away in time a royalty is paid, the less that payment is worth in present value. Consider the case of an author who writes a book and lives for 30 more years. Under the pre-CTEA copyright regime, "the author or his assignee would receive royalties for 80 years. If the interest rate is 7 percent, each dollar of royalties from year 80 has a present value of $0.0045. Under the CTEA, this same author will receive royalties for 100 years. Each dollar of royalties from year 100 has a present value of $0.0012."

What's more, extending copyright for existing works "makes no significant contribution to the author's economic incentive to create, since in this case the additional compensation was granted after the relevant investment had already been made." It does, however, provide a significant benefit to those copyright holders who can continue to make money from their intellectual property. But the number of such copyright holders is relatively small. Most of the intellectual property that would have entered the public domain in the absence of copyright extension is out of print. Indeed, according to Eldred's attorney, Lawrence Lessig, only 2 percent of the work copyrighted between 1923 and 1942 remains commercially viable. The other 98 percent presumably could have been posted on Web sites like Eldred's without harming anyone, except, perhaps, a few used book stores.

What can be done? The prescription offered by economists Boldrin and Levine is unlikely to be adopted. Intellectual property protection is here to stay. But are there ways to design a system that would improve overall welfare without drawing the ire of powerful media companies like Walt Disney and AOL Time Warner? Lessig has come up with a proposal that he thinks might fly. In an opinion piece for *The New York Times* he floated the following idea: Fifty years after a work's creation, copyright holders would be required to pay an annual tax to keep that work from entering the public domain. If the tax is not paid for three years in a row, then copyright protection would expire, and anyone "would then be free to build upon and cultivate that part of our culture as he sees fit."

The CTEA's major supporters shouldn't have any complaint about such a proposal, Lessig says. "All of them argued that they needed the term increased so they could continue to get revenue from their works that supported their other artistic endeavors. But if a work is not earning any commercial return, then the extension is pointless." This compromise would put fewer works into the public domain than if the Supreme Court had ruled the CTEA unconstitutional. "But it would nonetheless make available an extraordinary amount of material. If Congress is listening to the frustration that the Court's decision has created, this would be a simple and effective way for the First Branch to respond."

Lessig's proposal is very similar to one made by Posner. The major difference is the size of the tax involved. Lessig would keep it small, so that holders of copyrights to material that is not commercially viable could protect their intellectual property if they wished. Posner would make the tax high, so as to discourage such actions. But they agree that a politically feasible solution lies in a system of "indefinitely renewable copyrights."

At heart, the matter of intellectual property comes down to an issue of competing interests. On the one hand, we want to encourage innovation and artistic creation. On the other hand, we want as many people to have access to as much material as possible. The task is to create a legal regime that strikes the right balance.

And this, writes Posner, "requires a comparison of these benefits and costs — and really, it seems to me, nothing more. The problems are not conceptual; the concepts are straightforward. The problems are entirely empirical. They are problems of measurement." That may well be true. But such problems are not trivial. In fact, as Posner admits, they are "acute." Economists and legal scholars have their work cut out for them — but it is work that could yield huge societal benefits. **RF**

READINGS

Akerlof, George A., et al. Brief submitted to the United States Supreme Court in the case of *Eric Eldred, et al., v. John D. Ashcroft*, May 20, 2002.

Besen, Stanley M., and Leo J. Raskind. "An Introduction to the Law and Economics of Intellectual Property." *Journal of Economic Perspectives*, 1991, vol. 5, no. 1, pp. 3-27.

Boldrin, Michele, and David K. Levine. "Perfectly Competitive Innovation." Minneapolis: Federal Reserve Bank of Minneapolis Research Department Staff Report 303, March 2002.

Lessig, Lawrence. "Protecting Mickey Mouse at Art's Expense." *The New York Times*, January 18, 2003.

Plant, Arnold. "The Economic Theory Concerning Patents for Inventions." *Economica*, 1934, vol. 1, no. 1, pp. 30-51.

Plant, Arnold. "The Economic Aspects of Copyright in Books." *Economica*, 1934, vol. 1, no. 2, pp. 167-195.

Posner, Richard A. "The Law & Economics of Intellectual Property." *Daedalus*, Spring 2002, pp. 5-12.

Visit **www.rich.frb.org/pubs/regionfocus** for links to relevant Web sites.