Intellectual Property and Code

Lawrence Lessig
I am honored to be here. I am also surprised. When I was called by the Journal and asked whether I would come and talk on this panel on Intellectual Property, I said I would love to come, but I do not know anything about intellectual property. “Great” the caller said, and so here I am.

I do teach a course on the law of cyberspace,¹ and we do spend some time talking about intellectual property. It poses an organizing problem for the law of cyberspace because it raises important questions that cyberlaw presents or will present. The important questions about cyberspace have little to do with what cyberspace is just now. The important questions surround what cyberspace will become quite soon. In the time I have been given to talk, I want to suggest to you a picture of what this will be, and how this might matter, to intellectual property law, and perhaps to law more generally. The picture has two parts. The first is suggested by a story from Russia.

In Czarist Russia, long before the revolution, there was a regulation that required citizens to carry an internal passport—a document that identified who citizens were, and from where they came; a document that signaled whether they had permission to go where they intended to go, or see who they wanted to see.²

¹ See, e.g., Trotter Hardy, The Proper Legime for Cyberspace, 55 U. Pitt. L. Rev. 993, 1000 (1994). Hardy defines cyberspace as “means of communication directly between human beings.” Id.

² Cf., e.g., Mary Holland, An Emerging Conception of Fundamental Rights in Contemporary Russia, 1 New Eur. L. Rev. 1, 11 (1992) (discussing contrast between Soviet internal passports and post-Soviet individual freedoms).
people hated these passports, and the Bolsheviks promised to eliminate them. Upon their rise to power, the promise was kept. However, within fifteen years, threatened by starving peasants flooding the cities, Stalin reinstated the internal passports. Once again, people were restricted in where they could go by the marks they carried on their passports.

As it is now, cyberspace is Bolshevik Russia. It is a place without internal passports. That is its essence. It is a place where people can cross borders freely; an architecture defined by the ability to go anywhere, and see anything. Its architecture in this sense is open; its heart, democratic.

But this unzoned space is changing quite quickly. It is moving from a world without internal passports, to a space defined by internal passports. Cyberspace is becoming yet another place where, in going from one place to another, one must show credentials; a place where credentials will determine one’s access. Are you eighteen? Do you have the proper security clearance? Do you have enough money? These are the questions at the core of what cyberspace will become. In a word, cyberspace will become zoned.

A zoned space is the first part of the picture of what cyberspace will become. The second part ties more directly to intellectual property. We could understand the second point like this: We have special laws about the theft of automobiles, and planes, and boats. We do not have special laws about the theft of skyscrapers. Skyscrapers pretty much take care of themselves. The laws of nature help skyscrapers in just the way that the laws of nature hinder the owners of automobiles. Nature makes it hard to steal a skyscraper, but easy to steal an automobile.

This should suggest a broader point. The protection of any property is the combination of both technological protections and legal protections. Special laws compensate for the ease with

---


4 See Debra D. Burke, Cybersmut and the First Amendment: A Call For a New Obscenity Standard, 9 HARV. J. L. & TECH. 87, 89-90 (1996) (describing National Information Infrastructure as global webbed network of interconnected computers and databases of which Internet is part and encompasses academics, research, and personal and business communication activities); see also Monroe Price, Free Expression and Digital Dreams, 22 CRITICAL INQ. 64 (1995) (discussing open architectures).
which automobiles can be taken; such laws are not needed to pro-
tect against the theft of skyscrapers. Thus, to describe the protec-
tion of a piece of property, one must describe both the protection of
law and the protection of, as I call it, nature, or technology, or
elsewhere, code\textsuperscript{5}.

Today, because unzoned, the technology of cyberspace is a place
where intellectual property is like the automobile. It is a place
where the architecture of the place—its nature—makes it easy for
intellectual property to be stolen. For this reason, it is a place
where holders of intellectual property worry that the value they
have created can too easily be taken by those who wish to steal it.

This feature of cyberspace, as it is right now, is simply a feature
of its architecture. It is the architecture of the unzoned. And as I
was describing before, it is just this feature of the architecture of
cyberspace that is now changing. Cyberspace is becoming zoned;
its architecture is becoming zoned. As cyberspace becomes this
zoned space, the protection it affords intellectual property will be
more like the protection nature gives to the skyscraper.

What a zoned cyberspace means is that built into the system—
into its architecture, into its nature, or best, into its code—will be
tools for protecting intellectual property in a way that no property
in the real world is now protected. At its extreme, a perfectly
zoned cyberspace would be a place where property is perfectly pro-
tected. Long before we achieve perfection, however, we would
have fairly decent zoning, which would mean fairly decent protec-
tion, which translates to fairly decent control given to owners of
intellectual property to determine who gets to use their work, and
how.

What then happens to concepts such as “fair use,” when the ar-chitecture of the net—its code—protects intellectual property
rather than law protecting intellectual property?\textsuperscript{6} In law, of

\textsuperscript{5} See David Bender & Craig Nethercott, Lotus v. Borland: At the United States Supreme
Court, in 16TH ANNUAL INSTITUTE ON COMPUTER LAW: UNDERSTANDING THE BUSINESS AND
LEGAL ASPECTS OF THE INTERNET, at 7, 21 (PLI Pat., Copyright, Trademarks, and Literary
Prop. Course Handbook Series No. 430, 1996) (discussing different views of legal definition
of “code”).

\textsuperscript{6} See 17 U.S.C. § 107 (1994) (regulating copyrights through “fair use” doctrine); see also
James V. Mahon, Note & Comment, A Commentary on Proposals for Copyright Protection
on the National Information Infrastructure an Analysis of Proposed Copyright Changes and
their Impact on Copyright’s Public Benefits, 22 RUTGERS COMPUTER & TECH. L.J. 233, 245
(1996) (defining fair use as “privilege in others than the owner of a copyright to use the
copyrighted material in a reasonable manner without his consent, not withstanding the
monopoly granted to the owner”).
course, "fair use" will continue. Law, however, is only relevant to the extent that technology does not displace it. When technology can better protect intellectual property than law, the public use exceptions that law provides will quickly become irrelevant unless replicated in the code. The fear is that these exceptions will not be replicated. When technology allows owners of intellectual property perfectly to control who has access to that property, or who does not, the concern is that concepts such as fair use will become irrelevant. Technology will have privatized law. The controls of the law will be replaced by the controls of the technology, and hence the designs of the law (including fair use) will be replaced by the designs of the technology—or better, the designs of lawmakers will be replaced by the designs of codewriters.

I come from the University of Chicago, so I cannot possibly say that a world where there is perfect protection of property rights is a bad world. I can believe it, but I am not allowed to say it. But at least one should admit that there is something to question, that we should consider the consequence of this architecture for intellectual property law in particular, and law more generally.

One thought is this: Real property, or property that is not intellectual property, is protected absolutely, since if someone else uses that property, that someone else deprives the owner of her use. (If you eat my apple, I cannot eat my apple.) This, however, is not the nature of intellectual property. Intellectual property is something that someone else can use without the owner being deprived of the same use. (If you read my book, I still can read my book.) Thus, while we protect real property to protect the owner from harm, we protect intellectual property to provide the owner sufficient incentive to produce such property. \(^7\) “Sufficient incentive,” however, is something less than “perfect control.”

---

\(^7\) See Iowa State Univ. Research Found., Inc. v. American Broad. Co., 621 F.2d 57, 60 (2d Cir. 1980). The courts in these cases held that the doctrine of fair use enables courts to avoid rigid application of copyright statute when it would stifle the creativity that the law is designed to foster. Id.; see also Robinson v. Random House, Inc., 877 F. Supp. 830, 835-36 (S.D.N.Y. 1995) (same).

The question we must then ask is what kind of control the Net should yield to owners of intellectual property, either through law, or through code. If through code, then to what extent should the control that code provides to owners of intellectual property differ from the control that law provides. In other words, to what extent should the law permit holders of intellectual property to get more protection through code than they would through law.

The White Paper misses this point. It recommends not only changes in law to protect further intellectual property, but it also champions the changes in code that will help code replace law. It adds to these recommendations the recommendation that it be illegal to write software that aims at breaking the protections of code. Thus, law would not only be replaced by code; it will punish efforts to escape the code.

This regime may well make sense—I doubt it, but that's just my doubt, and I am an intellectual property know-nothing. What I do know, however, is that whether it makes sense turns upon whether code should replace law, or better, whether privatized law should trump public law. It is this idea, I suggest, that we should question. Or at least it is this idea that I question—again maybe because I know nothing about intellectual property, but I think because it will be important, given what cyberspace will soon become.

(Explanation of value of intellectual property lies not in individual but in its "exclusive use and licensing by the owner").


See Gary W. Glisson, Symposium, A Practitioner's Defense of the White Paper, 75 OR. L. REV. 277, 278 (1996). Glisson notes that the goal of Working Group was to "maintain existing balance" of proprietary and public rights. Id.; see also Benjamin R. Kuhn, A Dilemma in Cyberspace and Beyond: Copyright Law for Intellectual Property Distributed Over the Information Superhighways of Today and Tomorrow, 10 TEMP. INT'L. & COMP. L.J. 171, 172 (1996). Kuhn argues that the "promise of information networks may not be realized if the information and entertainment products covered by the intellectual property laws are not protected when they are disseminated via the present and future information infrastructures." Id.

See Terri Sothwick, 13 No. 6 AM. CORP. COUNS. ASS'N DOCKET 40, 42-43 (Nov./Dec. 1995) (detailing efforts of Information Infrastructure Task Force Working Group on Intellectual Property Rights to make intellectual property protection in cyberspace effective; arguing it must take in three forms: legal, technological, and educational); see also Barry D. Weiss, Barbed Wires and Branding in Cyberspace: The Future of Copyright Protection, in UNDERSTANDING BASIC COPYRIGHT LAW 1996, at 450 (PLI Pat., Copyrights, Trademarks & Literary Prop. Course Handbook Series No. G4-3974, 1996) (asserting on-line service providers can act as "gatekeepers" on Internet because they are in best position to know who subscribers are and can take steps to prevent copyright infringement).