



Thought Leader
by Lawrence M. Fisher

Amid the chorus of techies and Web heads proclaiming that cyberspace is inherently immune to regulation, a lone voice has consistently insisted quite the opposite.

Indeed, Stanford University law professor Lawrence Lessig has written that the Internet is rapidly succumbing to a triad of ill-considered law, restrictive technology, and commercial monopolization that threatens its very existence as a platform for freedom, innovation, and growth.

Powerful interests seek to control how and what is distributed over the Internet. This control, Professor Lessig argues, will destroy the platform that gave rise to new forms of businesses (like Amazon.com and eBay) and new forms of expression (from Salon.com to Usenet newsgroups), unless forceful countermeasures are taken soon.

Professor Lessig's outspoken commentary has earned him both admirers and detractors. Stewart Brand, founder of the Well, an early Internet community, has said, "Lawrence Lessig is a James Madison of our time, crafting the lineaments of a well-tempered cyberspace. Like Madison, Lessig is a

Photograph by John Blaustein

Lawrence Lessig: The Thought Leader Interview

The Stanford University law professor and cyberadvocate redefines the parameters of the Internet.

Lawrence M. Fisher
(lafish3@attbi.com)
is the executive editor
of *strategy+business*.

model of balance, judgment, ingenuity, and persuasive argument.”

But Professor Lessig was dismissed as special master in the U.S. Department of Justice’s antitrust case against Microsoft after the software company claimed he was biased. Judge Thomas Penfield Jackson was also believed to have based his decision to split the company in two on a friend-of-the-court brief later written by Professor Lessig. That decision was subsequently reversed by the appellate court.

Professor Lessig refutes the accepted wisdom that the Internet is an organic and uncontrollable medium. To the contrary, he argues that the Net owes its very existence and continued viability to a fragile set of freedoms that protect its openness in the three dimensions of architecture, infrastructure, and content. Each is under constant and insidious attack.

Professor Lessig recently talked with *strategy+business*, at his office at Stanford Law School, about the ideas and arguments from his new book, *The Future of Ideas: The Fate of the Commons in a Connected World* (Random House, 2001), and his vision for a future of competition that will realize the Net’s full

potential as a catalyst for creativity and innovation.

S+B: Many CEOs ask why the commercialization and closing of the Internet is a threat to the way they do business, or important to them in other ways.

LESSIG: The fundamental reason to be worried about the Internet changing is if it alters the environment for innovation, it will limit corporate growth in the future. To the extent we’ve seen a slowdown, I think a substantial amount can be attributed to the restrictions I’m seeing. The CEO would be concerned about a new tax on the Internet; these are equivalent effects from a different source. I believe the slowdown in the technology sector can be explained by the increasing regulation, if you include copyright. It certainly has changed the competitive horizon and undermined the opportunity for lots of innovation.

S+B: In your new book, *The Future of Ideas*, the subtitle reads *The Fate of the Commons in a Connected World*, evoking Garrett Hardin’s *Tragedy of the Commons*. Is what’s happening with the Internet a “tragedy”?

LESSIG: There is a double sense of

tragedy. One that I reject, and one that I embrace.

Tragedies occur when resources held in common get overused. If everybody’s cattle consume a pasture, at some point the cattle will overuse the pasture, so there will not be enough for later. Leaving the resource (a pasture) open for everyone produces this tragedy. The standard response is to enclose the resource to ensure it is not overused.

But there is no tragedy with resources that economists call non-rivalrous — resources that create no rivalry between users. With non-rivalrous resources, your using that resource doesn’t deplete the resource; there’s just as much left over afterward as there was before. Placing those resources into a commons produces no tragedy.

Ideas — and expression — are resources that are nonrivalrous. Your use of my poem doesn’t decrease my opportunity for using the poem. And the same is true with the particular commons that I focused on in my book: the innovation commons.

The innovation commons is a commons that was constructed by the architectures of the Internet. By embracing an end-to-end design, the Internet’s architects made it such that the network itself could not control who, what, or what kind of applications got to run on the network. The network didn’t have that intelligence. So from a conceptual standpoint, it took the right to innovate and placed it in a commons that anybody could use. That’s a kind of commons where there is no potential tragedy because your innovation for the Internet doesn’t decrease my ability to innovate for the same Internet. This commons invites a comedy, not a tragedy — a comedy in the sense

that the more people use it and do things with it, the more valuable it becomes to everybody.

Now there is a tragedy with the innovation commons. This is the second sense of tragedy I described, and this sense I do embrace. This tragedy is happening because of steps being taken by corporations and governments to enclose this commons. The enclosure, which is coming from increasing control at the physical layer and increasing control from the content layer, will erode this commons.

S+B: *The Future of Ideas* says that the Internet became a commons because any device could be connected. And the code or content layer is free, as well as the physical layer, the telephone lines most traffic runs on. Now, as the Internet moves to the wireless arena, one would assume all bets are off. Everyone ought to have access, but why isn't it transpiring in that way?

LESSIG: Spectrum itself could function as a commons. If portions were architected so that there was a certain amount of free spectrum, then cable and telephone company interests in wireless could coexist with free use. This would create a great deal of innovation. But my concern is that there is such strong pressure against this, and such a misunderstanding about the dynamics of free spectrum, that instead there is a push toward what people call the marketplace solution.

That gets translated into auctioning off spectrum, which could quickly develop into the equivalent of the cable companies' owning the cable, and then once again they can use the spectrum however they want, and if they're strong enough, they can use it to block competi-

tion. But the key here is to preserve a commons in the spectrum layer. In the broadband race, if you encourage a stronger development of wireless, this could very quickly develop into competition for these two quasi-monopolists.

S+B: Does the battle then move beyond DSL and cable modem?

LESSIG: Right, add a third competitor like wireless that doesn't depend upon high infrastructure costs, and all of a sudden you've got a real race. The FCC could do that fairly easily, but only if it understands the value of commons resources.

S+B: Isn't it just due to a fortuitous set of circumstances that the Internet was architected the way it was, that it ran on the Unix operating system, which was freely available to everybody?

LESSIG: You're right, but it might have just been fortuitous that they chose, for example, to put TCP/IP protocol in the public domain. And that it was run on an operating system that was generally open and modifiable. But that doesn't change the character of the thing that this fortuity produced.

S+B: So you're saying that the technical choices made by the Internet's creators, for whatever reasons they might have had, resulted in a platform uniquely suited to innovation.

LESSIG: Yes. If the Internet's creators had produced a closed proprietary network, this kind of development wouldn't have occurred. Part of the reason I wrote this book was to try to get people to focus on what it was about the Internet that produced the innovation and creativity that we saw. The thing that

produced it was the extraordinary opportunity for lots of people to innovate there, as opposed to an architecture that gave the network the power to pick and choose.

S+B: It seems that you could almost make the case that every new medium — photography, FM radio, rock and roll — starts from a kind of primitive state where you have lots of innovation and creativity, but ultimately the medium becomes commercialized and more controlled. Is there something fundamentally different about the Internet?

LESSIG: You are right that we can see this pattern in a lot of contexts. Although in some of these contexts I think that there was a much stronger economic argument in favor of the concentration or the commercialization as you describe it. So I wouldn't say that in each of these cases there was a conspiracy and now we see the results.

But the economic argument that justified these other concentrations does not justify concentration in the context of the Internet. Keeping a neutral platform here will induce extraordinary commercial and noncommercial engagement. Giving up that neutral platform will benefit some commercial innovation, but at the expense of a vast majority of opportunity. So whatever the justification for the enclosure movement in the past, I don't think it is applicable to the Internet.

S+B: You devote quite a bit of space in the book to free software and the Open Source movement, which was initiated by Richard Stallman at MIT and accelerated by Linus Torvalds's Linux. How close are the Open Source phenomenon and the Internet as a sustainable commons?

game for people to play based on a proprietary structure.

S+B: It is always in the interest of the incumbent to limit uncertainty, to avoid disruption, and the incumbents have all the resources. It almost seems inevitable that they win regardless of what might be best for innovation, or society as a whole.

LESSIG: Yes, incumbents have all the resources, but sometimes all the resources in the world aren't enough to stop technological disruption. This is the optimists' story — "they'll never be able to stop it." But I'm a pessimist about this. Sometimes they can't stop it; some regimes won't be able to survive new technologies. But there is a lot of damage that can be done in the interim. Even if they can't stop change, they can slow it down in a way that really does set it off on a path that produces an outcome that is far less valuable than what we could have had.

S+B: In *The Innovator's Dilemma*, Clayton Christensen makes the case that disruption has been one of the fundamental causes or mechanisms through which our lives have improved. Is there any place in the public policy debate to make that kind of argument?

LESSIG: Well, in one sense, that's what the Microsoft case was about. It was saying that you, Microsoft, have to leave yourself open to the risk of fundamental disruption. The browser might displace your operating system, but the law doesn't permit you to use your power to protect yourself against that disruption.

And in a very deep and I think completely isomorphic way, democracy is about that. Democracy says the government in power can't

entrench itself by saying, "Well, OK, votes against us will only be counted at 20 percent and votes for us at 180 percent." The rules basically say every four years or every two years, you are open to being kicked out. Now people complain about the extent to which incumbents entrench themselves through various devices, but we understand that to be a flaw in the system, we don't understand it to be a virtue of the system.

What's weird in the context of markets is lots of times we think it a virtue of the system that the incumbent entrenches itself against disruptive technology. I do think sometimes you can show an economic gain from this entrenchment; I just feel skeptical about its reach, and I think we should be working to minimize the range of cases where somebody could use entrenchment to block disruption.

S+B: Both in the book and in testimony you have given before Congress, you take a relatively soft line on Microsoft. And, indeed, you say you don't see it as the biggest threat to the Net. That seems to me very different from what most of your friends in the Open Source community might say.

LESSIG: The Court of Appeals has now affirmed that Microsoft engaged in illegal behavior in protecting its operating system against a certain kind of competition. But I also think it is very important not to continue to fight the last war for the next 12 years. Microsoft was an important threat, and I still think that existing remedies are not adequate to deal with that threat.

But what is striking me more and more is, as you look at what Microsoft's business model could

“Keeping the Internet’s neutral platform will induce extraordinary commercial and noncommercial engagement.”

be, you see it could be something that fundamentally reinforces the very best of the Internet. Its model, the “.NET” Web services, does depend upon a nice end-to-end network that doesn’t have in the middle cable companies playing games with what service is on cable and telephone companies determining what service is on telephones. More strongly, to the extent cable companies get empowered to play the kind of game that I’ve been tackling, “.NET” Web services become less and less valuable. So Microsoft has an interest in defending the end-to-end architecture.

In the same way, Disney has an interest in defending the end-to-end architecture, because Disney doesn’t own any infrastructure; it’s just got great content. So it, too, becomes a kind of defender of neutral pipes, which is the most important value here. Now I’m not saying Microsoft will become that necessarily, just that we ought to understand how it could become a force of good and let’s try to steer it to that.

For a lot of other companies, it is not so obvious that their business model is a force of good. What is AOL? It owns content, it owns code, it owns physical infrastruc-

ture, and it’s integrated. This vertical integration is not about building a platform for anybody to innovate on. It’s about building a platform where AOL controls what goes on. It’s a company town from top to bottom. I’m not against AOL, but that architecture doesn’t invite the innovation that built the Internet. So between AOL and Microsoft, I at least see how Microsoft could become good; I’m not sure I see how the business model of AOL could become good.

S+B: You’ve argued on behalf of Napster, which the music industry has described as merely a tool for violating copyrights. And you make a broad case against increasing the scope of copyright, which many of us in the content creation business might not view as such a bad thing.

LESSIG: The critical thing is to distinguish between how copyright benefits authors and how it benefits publishers in the modern age. I have no hesitation in saying that to the extent copyright benefits authors and creators, it’s a good thing. But it is being used by publishers in the modern environment to stifle innovation. The increased power of the Recording Industry Association of

America to limit digital distribution does not benefit musicians; it increases music publishers’ power to limit new kinds of competition.

S+B: You wrote the legal briefs for the plaintiff in *Eldred vs. Ashcroft*. Eric Eldred produced an HTML book library by putting public-domain books in Web form, but was stymied by Congress’s extension of copyrights. In February, the Supreme Court agreed to hear Eldred. What was the significance of that?

LESSIG: I hope this signals that it takes the case seriously and will take equally seriously the claim that the Constitution restricts Congress’s ability to extend copyright. I believe that will affirm what the Framers intended, which was that copyright grants authors an exclusive right “for a limited time,” and that their work would enter into the public domain after a time. Originally, the simplicity of copyright made it a lawyer-free zone. To the extent we can eliminate lawyers from the process, we’ll encourage a great deal of innovation that right now is stifled. +

Reprint No. 02210