

The Future of Ideas: Antitrust and Intellectual Property in the Information Age

David H. Evans

In his new book, *The Future of Ideas: The Fate of the Commons in a Connected World*,¹ Professor Lawrence Lessig offers his view of the future of the Internet, innovation and, ultimately, of ideas themselves. It's grim. To Lessig, the Internet over the last decade fostered an explosion of creativity and innovation. This explosion occurred principally because the Internet was content and distribution neutral. This neutrality liberated artists and inventors because it reduced dependence on entrenched providers to distribute their ideas. This liberation created a creative commons.

Now, however, the Internet is becoming commercialized. Private interests are attempting to insert proprietary standards and protocols into the structure of the Internet. These proprietary standards and protocols will allow those interests to eliminate the neutrality, control content, and constrain the innovation the original Internet encouraged. Further hampering innovation, the expanding protections granted intellectual property holders are increasingly constricting the ability to build on and improve ideas. As business method and software patents proliferate and copyright protection is extended beyond what is necessary to stimulate innovation, inventors are more and more barred from using the ideas required to innovate. Ultimately, the future of ideas is at risk.

In essence, Lessig believes that the traditional balance between the grant of the right to exclude to induce innovation and society's benefit from seeing the invention has tilted too far to the inventor's advantage. He does not see much of a role for antitrust in helping to restore the balance. Lessig's solutions to these problems are regulatory. He feels that the government should force the Internet to be content and distribution neutral. He also advocates a radical rethinking of the intellectual property laws. He believes that a moratorium should be placed on new business method and software patents while they are studied for their effects on innovation, and, in any event, should be more narrow in scope and duration. He also believes that copyrights should be available only by registration and have a limited number of renewable terms.

Lessig's worries are legitimate. The power of the Internet is its neutrality, and if commercial interests are successful in creating proprietary "bottlenecks" that they can exploit, that "bottleneck power" will influence how the Internet operates, perhaps detrimentally. Intellectual property rights do seem to be expanding at an astonishing pace. When a company can claim a patent on an essential functionality of the Internet, intuitively, it will have an effect on innovation. Indeed, though Lessig does not say it, the structure of his analysis is modern antitrust.

His solutions miss the mark, however. With regard to potential bottlenecks, his assumption is that there are no viable alternatives to government regulation. Antitrust is a viable alternative. Antitrust

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¹ LAWRENCE LESSIG, *THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD* 2001.

forbids the illegal exercise of monopoly power. If companies create and exploit bottlenecks, they are subject to redress under the antitrust laws. Perhaps his aversion to antitrust derives from a view that antitrust is too slow to capture anticompetitive behavior in the information age. Once a company has caused a network market to tip, for example, it is difficult to re-balance that market. Lessig may be suggesting that the law should prevent companies from tipping the market in the first place.

A fundamental assumption of the antitrust laws is that the challenged behavior must actually occur. Generally, the possibility that a company *could* exploit a monopoly position is not actionable.² Monopolies gained by virtue of business acumen are not illegal, after all. The reason behind this policy is that the incentives to create the monopoly in the first place are meaningful. The drive to make the most profit spurs innovation to a greater and more efficient extent than other incentives. By ignoring antitrust and substituting a top-down solution, Lessig asserts the profit motive is insufficient to protect the Internet and perhaps ideas themselves. Antitrust can contain anticompetitive behavior in cyberspace. But the behavior it should contain is not hypothetical bottlenecks but bottlenecks that are actually exploited. Anything less creates a regulatory bureaucracy where the government effectively decides which innovations succeed.

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The Future of Ideas

To Lessig, the Internet of the last decade fostered a nonrivalrous creative commons—a place where individuals were free to share ideas, to innovate and to create, where the apparatus of creativity was free to anyone to use, and where use by one did not constrain use by another. Lessig believes that today's Internet is becoming a private space. Commercial interests are imposing new technological and legal bottlenecks to gain control over the Internet's infrastructure and the content flowing over that infrastructure. Companies like Comcast control the physical wires through which data is transmitted (the "pipes") and can decide what goes over those pipes. Companies like Cisco are creating functionality that can discriminate in the types of information that are distributed over the Internet and can determine what information gets through. Companies like Microsoft control the human interface and can decide what people see. Companies like Disney control the content and can decide which ideas gain exposure. And, through what Lessig sees as the unwarranted expansion and enforcement of intellectual property rights, companies are beginning to control the very mechanism of creativity. By preventing people from building upon the expressions of ideas, companies are restricting the process of innovation.

The result is that commerce, entrenched and inefficient, will control what ideas are shared, what innovations succeed, and what is created. To Lessig, this battle is between old and new—between the entrenched trying to preserve control and the challengers trying to dislodge that control with disruptive technology and ideas. Society is losing.

His solution is a re-imposition of the commons—freed spectrum, state-sponsored construction of cable pathways, neutral code platforms, and, most controversially, amending the intellectual property laws to include limitations on the terms of copyrights and patents and a moratorium on new Internet and software patents until the government has assessed their effect on innovation.

² There are exceptions. Section 7 of the Clayton Act is basically forward-looking at least in application. Although attempted monopolization under Section 2 of the Sherman Act is also forward-looking, it requires a dangerous probability of success—something more than just a guess that a corporation might obtain monopoly power.

Lessig's Layers

Lessig conceptualizes the Internet in terms of layers—physical, code, and content. Roughly, the physical layer is the hardware. The code layer is the software. The content is what is shared. By dissecting the structure of the Internet and articulating where possible bottlenecks can be asserted, Lessig lays out the framework of modern antitrust analysis.

The Physical and Code Layers: Antitrust in the Information Age. The physical layer consists of the physical infrastructure. Servers, computers, broadband cable, the telephone lines, and spectrum. For the most part, Lessig believes that companies that invest in creating the infrastructure should be able to profit from that investment.³ He does not believe, however, that they should be able to leverage that power. Lessig offers the example of recent improvements Cisco is considering to their routers. A router is a device that physically moves or “routes” digital information over the Internet. Cisco makes most routers. In the past, there was no way of distinguishing one piece of information from another on the Internet. Now, Cisco is developing a technology that can distinguish types of information so that “favored” content will be allowed to flow more efficiently than disfavored.⁴ Conceivably, Cisco could use the power over that evaluation process to leverage control in other areas.

The code layer involves the software that organizes and moves content over the Internet's physical layer. If Microsoft were to gain control over the browser market, it could then gain control over the interface by which individuals can access the Internet. By controlling the interface, Microsoft would also be able to control the content. Moreover, because Microsoft could keep the browser proprietary, individuals would not be able to use the browser's code and so could not improve or expand on it. An important means of innovation would be stifled.

Lessig's solution is “open code” and “open access.” Open code prevents entities from using the code strategically. Moreover, open code also enables users to defeat any attempt to bottleneck by giving them a means to work around the bottleneck. Innovation would be further spurred, he feels, by the “promise” that no one would be able to shut down innovation through the use of protected intellectual property. In addition to requiring open code, Lessig also believes that the government should limit the ability of private entities to redesign the Internet along proprietary lines. He suggests legislation similar to the Telecommunications Act of 1996.

In many respects, Lessig's stories about Cisco's control over what information is routed, about the cable companies' control over the wires, and Microsoft's control over the user interface are admonitions calling for a more forward-looking response from antitrust. But Lessig does not offer antitrust as a response. Conceivably, antitrust is not viable because it waits until companies with bottleneck power actually use that bottleneck power to harm competition. Thus, antitrust cannot prevent the monopolist from becoming entrenched, and innovation is squelched.

One theme to come out of the Internet boom was that many in the bricks-and-mortar world “just don't get it.” To many, “not getting it” meant lacking the vision to see what the technology could do, how it could transform commerce and society, and how these accomplishments could all be realized in the shortest intervals. To some, this view suggested that a new way of applying the antitrust laws was required. The application of antitrust—if it was to be applied at all—had to be more forward-looking. One had to look at the technology, anticipate how it might be used, and then use the antitrust laws to prevent anticompetitive manipulation.

³ *Id.* at 241.

⁴ *Id.* at 156.

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Lessig proposes government regulated open source and open access as a viable response. One could view this proposal as suggesting that the innovation inspired by open source and open access is superior to the innovation inspired by free enterprise. Essentially, an academically-oriented incentive system is better than a commercially-oriented one. In an academic setting, the innovator's incentive is to achieve ubiquity—to maximize his name recognition and reputation. As a result, people share ideas, develop new applications, and correct bugged code freely because with each new idea, application or fix, their name and reputation are enhanced. Open source and open access maximize the individual's potential in this setting because openness eliminates the restriction on the individual's ability to build on previous work. In a commercial setting, the innovator's incentive is profit. To maximize profit, the innovator will try to create bottlenecks he can exploit. These bottlenecks limit the individual's potential because they impose restrictions on the individual's ability to build on previous work. These bottlenecks also stifle the development of disruptive technologies. By controlling the bottleneck, a monopolist can limit the ability of disruptive technologies to dislodge the monopolist. The monopolist can, for example, create incompatibilities that dramatically increase switching costs and so prevent the disruptive technology from gaining a sufficient customer base to flourish. Forced open source and open access eliminate the ability of companies to create bottlenecks and create greater opportunity for disruptive technologies.

Open source and open access, however, reduce the commercial incentive to innovate. If a company cannot achieve a reasonable return on its research and development investment, it will not invest.⁵ Open source and open access as solutions to the problem of monopolist suppression of disruptive technology also underestimates the ability of the antitrust laws to prevent it. Greater regulation can create the environment Lessig believes is best, but leaves open the question whether an exclusively academic model is the most efficient. A system that encourages both is better.

Lessig's analysis is the framework of modern antitrust. Analyze the technology. Predict possible bottlenecks. If the bottlenecks actually arise, apply antitrust law as it exists. If the bottleneck was created by virtue of business acumen, the company attaining the bottleneck should be allowed to reap the benefits. If the bottleneck was created by virtue of a series of exclusive dealing contracts, however, it should be challenged under Section 1 and 2 of the Sherman Act. If the bottleneck was created by virtue of leveraging, it should be challenged under Section 2. And if the bottleneck or disruptive-technology-constraining incompatibility is claimed as an "innovation," courts should follow Judge Jackson's rule in *Microsoft*.⁶ "Innovation" is no longer "per se procompetitive," but subject to analysis.⁷ Antitrust may be slow to move. Indeed, it may even be slow to articulate the behavior that is offensive.⁸ This lack of speed may have some benefits, though. It lim-

⁵ Lessig's story about the success of Linux probably misinterprets the reasons why companies like IBM are supporting it. IBM may very well be inspired to develop Linux out of a desire to get out from under the control of a heavy-handed monopolist rather than a fundamental belief in the open source movement.

⁶ *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000), *aff'd in part and rev'd in part on other grounds*, 253 F.3d 34 (D.C. Cir.), *cert. denied*, 122 S. Ct. 350 (2001).

⁷ If a company controls an essential facility and manipulates it to the detriment of competition, the courts should open that essential facility to common usage. One should not, however, second guess whether a possible technology could become an essential facility. That second guessing—far from reflecting the fact that we "get it"—might actually cause more harm to innovation than it prevents.

⁸ Raising rivals' costs is one example. Rockefeller's rail transport conspiracy was affected almost a century ago. Rockefeller, in effect, created a technological bottleneck. By getting the rail transport providers to charge higher prices to his rivals' than those charged to him, Rockefeller

its the ability of others (including the government) to change behavior that may actually be efficiency enhancing. And in the high technology environment, the lack of speed may prompt others to work around potential bottlenecks as a solution to the slow pace of investigation and litigation further fostering innovation.

The Content Layer: Copyrights, Patents, and Ideas. The content layer consists of what is sent over the Internet. The principal issue with regard to the content layer is the ever-increasing control the courts and government are giving intellectual property rights holders.

Copyrights. Originally, the copyright laws offered a “porous protection.” In order to spur innovation, the government would grant a limited right to people to protect their expressions from copying.⁹ Eventually, the material would become part of the public domain. Once in the public domain, “second comers” would have the opportunity to do something with the work, perhaps even make more of it.¹⁰ The Copyright Act originally applied to “maps, charts and books.” Copyrights attached after they had been published and registered. Derivative works were not covered. Now, as soon as a work is reduced to a tangible medium, it is protected by copyright. No registration is necessary. Copyrights used to be limited to fourteen years, renewable once if the owner was alive. Now copyrights last for the life of the author and seventy years. Congress has extended the copyright term several times in the last few years.

To Lessig, this expansion of copyright protection unjustifiably extends “monopoly” protection. Monopoly protection should only be granted when “justified.” Lessig does not feel that “every copyright must prove its value up front” because that would be too cumbersome.¹¹ He does feel, however, that “every system of copyright or patent should prove its value up front. Before the monopoly should be permitted, there should be reason to believe it will do some good—for society, and not just for monopoly holders.”¹² Presumably, he means that before allowing business method or software patents as a matter of policy, someone should evaluate whether it would be a good thing to do so. Perhaps through a comment period similar to the one required under the Tunney Act.

Lessig believes that people should register their copyrights. He also believes that copyright protection should last for an initial period of five years, renewable fifteen times. After that period, the copyrighted work would fall into the public domain. For private, unpublished correspondence, the current regime would suffice. Software copyrights should be treated differently, however. One of the most significant reasons for treating software differently is that the copyrighted material is not disclosed. Software is compiled—it is converted into 1’s and 0’s that only machines can read. Because no one can read the copyrighted material, no one can derive benefit. The original exchange—the right to exclude for the right to see—fails. Lessig’s solution would be to grant protection for five years with one renewal. After the copyright has expired, society would get access to the source code. Protection would be granted only if the author submitted a copy of the code to be held in escrow.¹³

was able to convert the rail system into a bottleneck that he was able to exploit to drive his rivals out of business. Although successfully challenged at the time, only recently have economists described the behavior. See Elizabeth Granite, *Monopolization by “Raising Rival’s Costs”*: *The Standard Oil Case*, 39 J.L. & Econ. 1 (1996).

⁹ *Future of Ideas*, at 249.

¹⁰ *Id.* at 106 (citing remarks by Learned Hand).

¹¹ *Id.* at 250.

¹² *Id.*

¹³ Lessig also addresses the issue of software that protects copyrighted material from being copied. If companies can protect their works with both the law and protection packages, the protection they receive from the law should be limited. He thinks that Congress should require

Patents. For Lessig, patents are more problematic. Since *State Street Bank*,¹⁴ the United States Patent and Trademark Office has issued many potentially innovation-dampening patents. They include Amazon.com's 1-click patent, Priceline.com's patent on reverse auctions, and British Telecom's patent on "hypertext links." Lessig feels that some of these Internet business method patents and software patents do little social good. They afford companies protection without offering any increase in general innovation. Lessig believes that the government should study business method and software patents, and, if it cannot be demonstrated that these "forms of innovation regulation" are "more likely to aid innovation than harm it," then Congress should withdraw protection.¹⁵ Lessig believes Congress should enact a moratorium on "the offensive use of these questionable patents" until the study is complete. If Congress does determine that Internet and software patents do have value, Lessig believes that they should be limited in duration—less than five years.¹⁶

Lessig may be correct in his critique of the patent system. Certainly whether and to what extent patents spur or inhibit innovation and the variety of ways they can be manipulated need to be studied. The Federal Trade Commission and Department of Justice are currently holding hearings on the issue. It is not clear, however, that the solutions Lessig offers with regard to the registration of copyrights and limited terms for business method and software patents are necessarily the best next step. Among other things, adoption of Lessig's suggestions would require abandoning several significant treaties that harmonize intellectual property laws. While Lessig refers to these treaties in a footnote, he does not assess the harm a de-harmonization of the laws would have on the economy and innovation internationally. Other possible solutions include a relaxation of the obviousness standards including statutorily limiting the ability of courts to rely on "commercial success."¹⁷ Another solution would be to increase funding to the Patent and Trademark Office so that it could hire more experienced examiners. Of the two, relaxation of the standards for obviousness carries the greater risk in that it could cause a material contraction in the number of patents issued thereby discouraging people from investing in research and development. More funding stands a greater chance of success although it may prove difficult in tight years.

Lessig's suggestion that those who seek software or Internet business method patents (or software copyrights) should be required to disclose their source code is worth pursuing. Under this approach, if a company wants the right to exclude others, that company should disclose not only its idea conceptually but the actual means by which the idea was accomplished. Not only would this foster Lessig's follow-on innovation, but it would also restrict a company's ability to create and exploit bottlenecks. To the extent a coder wished to keep his innovations secret, he would have to rely on trade secrets protection. Piracy would, of course, be an even bigger issue. But the coder would make the choice.

Ideas. Perhaps most interesting is Lessig's notion that aggressive copyright enforcement could limit creativity to the point where the "future of ideas" was at risk. Lessig opens his book with a few vignettes about copyright and film making:

that any law that affords protection to copyright protection systems should be limited by the reach of the copyright law. Only systems that allow fair use are themselves afforded protection. Lessig mentions the various conventions and treaties that brought about these changes in our laws, but does not discuss the effect that repudiation of these treaties might have.

¹⁴ *State Street Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368 (Fed. Cir. 1998).

¹⁵ *Future of Ideas*, at 259.

¹⁶ *Id.* at 261.

¹⁷ Claimed inventions are not patentable if they are obvious. 35 U.S.C. § 103.

The film *Twelve Monkeys* was stopped by a court twenty-eight days after its release because an artist claimed a chair in the movie resembled a sketch of a piece of furniture that he had designed. The movie *Batman Forever* was threatened because the Batmobile drove through an allegedly copyrighted courtyard and the original architect demanded money before the film could be released . . .¹⁸

Lessig asks rhetorically “[w]hat is the mentality that gets us to this place where highly educated, extremely highly paid lawyers run around negotiating for the rights to have a poster in the background of a film about a frat party?”¹⁹

As Lessig formulates it, it does sound absurd. And to some extent, Lessig is right that these restrictions do impede the ability of artists to create their vision. But there have always been restrictions. In any event, copyrights don’t limit a second comer from using the idea—merely the expression of the idea. If the idea is free to the second comer, it is difficult to imagine how creativity or innovation could be harmed in the main.

Conclusion

Lessig is right to question business’ motives in developing technology. He is also right to challenge the current intellectual property system. Both need to be examined. He underestimates the value of antitrust and the free market, however, in preventing monopolization and advancing innovation. He certainly doesn’t consider the effects his proposed changes in copyright law might have on a more globalized economy. His vision of a restored creative commons is poetic, but may limit innovation more than he anticipates. And the conclusion that the future of ideas is at risk simply cannot be right. But maybe that wasn’t his point.

In a recent letter to the editor of the *Washington Post*, Jack Valenti, the chairman and chief executive officer of the Motion Picture Association of America, responded to a letter from Professor Lessig suggesting that the film industry’s inability to license their films for Internet distribution are stifling innovation in the digital world.²⁰ Valenti claims, among other things, that the “movie picture industry is under siege by a small community of professors . . .” Clearly, someone is reading Professor Lessig’s work, and it is fostering discussion. Even though the work was printed in a newspaper. Much like his copyrighted book. ●

¹⁸ *Id.* at 4.

¹⁹ *Id.*

²⁰ Jack Valenti, *Movies Get Framed*, WASHINGTON POST, Feb. 25, 2002, at A 23.