Patent Law Is, At Best, Not Worth Keeping*

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Does patent law really promote progress and innovation? More importantly, does it benefit society in general? Does it cause a major injustice? This Essay looks at the purported benefits of patent law, examines whether they are really benefits, and then compares them with the harm that it does. Progress and innovation are not the same thing, and innovation facilitated by the patent system limits our freedoms. This Essay rebuts the arguments in favor of keeping the patent system, and ultimately concludes that patent law should be abolished.

To think clearly about patent law, we must first reject the misguided tendency to lump it together with many other disparate laws under the term “intellectual property.” Those who fancy that term apply it to ten or more laws, most of which are unrelated and have little in common. U.S. copyright law does have one very general point in common with U.S. patent law—one sentence in the Constitution1—but that doesn’t apply to the rest of these laws.

Notwithstanding those facts, use of the term “intellectual property” leads many to suppose that all of these laws are similar. Even law professors are led to disregard facts they know when they make generalizations using that term. For instance it is quite common to say that “intellectual property laws are meant to promote innovation,” even though copyright law and trademark law are not concerned with innovation at all.2 Patent law is concerned with innovation, but the

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2. See S.C. Johnson & Son v. Johnson, 116 F.2d 427, 429 (2d Cir. 1940) (noting that the underlying principle of trademark protection is to prevent customer confusion); see also J. Thomas McCarthy, McCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 2:3 (4th ed. 2013) (noting that trademarks “reduce the customer’s costs of shopping and making purchasing decisions”); Stephen McIntyre, PRIVATE RIGHTS AND PUBLIC Wrongs: Fair Use as a Remedy for
relationship is less direct than many believe. The stated purpose of U.S. patent law is “To promote the Progress of Science and useful Arts.” This purpose relates to innovation, but is not synonymous with it.

A major intended function of patents in the United States is to discourage trade secrecy. If useful techniques are kept secret, their use will be limited and they could even be lost. Rather than compel practitioners to disclose what they know, the patent system offers them a limited monopoly in exchange for disclosing their techniques.

That might make sense by itself, but the U.S. government has contradicted its aim by enacting laws specifically designed to facilitate (and thus encourage) trade secrecy. The maintenance of trade secrecy has become a high priority national goal. China is often rebuked for employing crackers to break computer security to gain access to the secrets of companies that claim, when it suits them, to be “American.”

Private Censorship, 48 GONZ. L. REV. 61, 66 (2013) (stating that the purpose of copyright law is “to benefit the public by promoting the production and dissemination of creative works”).


4. See Mason v. Hepburn, 13 App. D.C. 86, 94 (1898) (noting that “the inventor, who, designedly, and with a view of applying it indefinitely and exclusively for his own profit, withholds his invention from the public, comes not within the policy or objects of the Constitution or acts of Congress”); see also Bates v. Coe, 98 U.S. 31, 46 (1878) (holding that inventors can lose their patent rights if they rely on trade secrecy); Gordon Doerrler, The Limits of Trade Secret Law Imposed by Federal Patent and Antitrust Superemacy, 80 HARV. L. REV. 1432, 1441 (1967).


6. See Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 150–51 (1989) (stating that “[t]he federal patent system thus embodies a carefully crafted bargain for encouraging the creation and disclosure of new, useful, and nonobvious advances in technology and design in return for the exclusive right to practice the invention for a period of years”); see also William Rosen, The Most Powerful Idea in the World: A Story of Steam, Industry, and Invention 51 (2010) (tracing the U.S. patent system to the English Statute of Monopolies and describing a fundamental tension in patent law—the desire to offer an exclusive monopoly over an invention as an incentive without suppressing competition).

7. See, e.g., H.R. 2466, 113th Cong. (2013) (citing its purpose as “strengthen[ing] protections against theft of trade secrets”); see also Ruckelshaus v. Monsanto Co., 467 U.S. 986, 992 (1984) (discussing Congress’ amendment to the Federal Insecticide, Fungicide, and Rodenticide Act, which prohibited the Environmental Protection Agency from publicly disclosing information which contained or related to trade secrets while considering applications for pesticide registration); Kewanee Oil Co., 416 U.S. at 493 (“Congress, by its silence over these many years, has seen the wisdom of allowing the States to enforce trade secret protection. Until Congress takes affirmative action to the contrary, States should be free to grant protection to trade secrets.”).

8. See, e.g., H.R. 2466.


If trade secrecy is to be encouraged, what sense is there in operating a burdensome system to discourage it?

In 1800, when trade secrets typically belonged to individuals who deserved rights, there was a valid reason to respect this right to secrecy: their own privacy. However, corporations are not people, and are not morally entitled to any rights. If the public has a good reason to want a corporation’s own information—not including information that it holds on behalf of people—it need not offer something enticing in exchange like a patent. Instead, the public can simply require the corporation to disclose that information. Even for individuals, business activities are less entitled to privacy than personal activities.

Further, patents are largely unsuccessful in discouraging trade secrecy. In practice, patent lawyers have figured out how to disclose little useful information. The description of the invention typically presents a simplistic implementation of the technique that is not useful in practice. Thus, patent holders receive the benefits of secrecy and the benefits of artificial monopoly at the same time.

Another claim made in favor of patents is that they promote progress. Actually, they do not even try to do that. What they try to promote is innovation, which is not the same as progress.

Is it good to promote innovation? Many arguments take this as a given, but innovation can be positive or negative. Democracy was once
an innovation. Dictatorship was once an innovation. Innovation is simply a kind of change, and change as such is not a wise goal.

We cannot always tell what the effects of a change will be; sometimes an innovation offers immediate evident benefit but results in long-term harm, as we now recognize with asbestos, DDT and chlorofluorocarbons; neonicotinoids and Bisphenol A appear to be two more such cases. Similar hidden drawbacks have been reported with digital communications technologies. Nonetheless, being imperfect, we cannot entirely avoid this risk if we wish to advance at all.

There are circumstances where, notwithstanding occasional hidden drawbacks, we can expect innovation to be predominantly beneficial overall: those where each of us can decide which innovations to use. Each person will use those innovations which she finds beneficial, and reject the rest. Under such circumstances, innovation will generally result in progress.

In today’s computing, however, individuals often do not get a choice. Companies herd people into accepting innovations that are obviously undesirable, by tying them to facilities people want. For instance, game console manufacturers chose years ago to impose the innovation of running only games that they had approved. Then Apple decided to adopt the same innovation in general purpose computers, and Microsoft followed suit. Most recently, Microsoft decided to require Xbox users

1, 3 (2006) (noting that an increase in innovation is a “benefit” of patent doctrine); Gregory N. Mandel, Proxy Signals: Capturing Private Information For Public Benefit, 90 Wash. U. L. Rev. 1, 8–9 (2012) (noting widespread agreement as to the importance of innovation).


16. See Play Original Xbox Games on an Xbox 360 Console, Xbox Support, http://support.xbox.com/en-US/games/xbox-games/play-original-games (last visited Sept. 30, 2013) (explaining that original Xbox games can only be played on an Xbox 360 if the user has an official Xbox 360 hard drive); see also Audrey Drake, Xbox One Not Backwards Compatible, IGN (May 21, 2013), http://www.ign.com/articles/2013/05/21/xbox-one-not-backwards-compatible (confirming that the Xbox One videogame platform will not play games from previous versions of the Xbox system).

17. See Fred Von Lohman, UPDATED: All Your Apps Are Belong to Apple: The iPhone Developed Program License Agreement, Electronic Frontier Found. (Mar. 9, 2010), https://www.eff.org/deeplinks/2010/03/iphone-developer-program-license-agreement-all (explaining how all devices built on the iPhone OS have been designed to run only software that is approved by Apple, which is “a major shift from the norms of the personal computer market”); see also Don Reisinger, Apple Unlikely to Approve Google Maps App for iOS, Report Says, CNET (Nov. 5, 2012), http://news.cnet.com/8301-13579_3-57545108-37/apple-unlikely-to-approve-google-maps-app-for-ios-report-says/ (noting that Apple has declined to approve other companies’ software for release on Apple products).
to connect to the network daily even to play solitaire.\textsuperscript{18} Strong resistance from customers made Microsoft back down, which shows that Microsoft’s power is not total—nonetheless, it is substantial.\textsuperscript{19} Under these circumstances, there is no reason to expect innovation to add up to progress for the public at large. Innovation can mean that businesses find increasingly clever ways to dupe customers.\textsuperscript{20}

Under these circumstances, we should not give much support to a scheme that claims its benefit consists of encouraging companies to innovate, especially since some of their innovations take away our freedom. We must place freedom above innovation—the exact opposite of what patents do.

But even if we disregard this problem and equate innovation to progress, does the patent system really promote innovation? Not necessarily. That is its nominal purpose, but often not its result.

Economic modeling often presumes that the rate of innovation is proportional to the rate of private investment in research.\textsuperscript{21} This is a mistake, because ideas arise in other ways too. For instance, anyone designing a product is likely to have some ideas for a different way to do it, and will put these ideas into practice. People working in design have ideas when they talk together. The government funds research too, and this spending is, for the most part, not motivated by patents.\textsuperscript{22} Models that disregard other sources of innovation will systematically overstate the benefit of the patent system.

Even the private investment in research is not necessarily increased by patents. Economic modeling by James Bessen shows that, taking account of the effects of incremental innovation, patents can discourage investment in research.\textsuperscript{23} In the simplest case of this problem, the patent

\begin{itemize}
\item \textsuperscript{18} See Keza MacDonald, \textit{Xbox One: Then and Now}, IGN (Aug. 13, 2013), http://www.ign.com/articles/2013/08/13/xbox-one-then-and-now (explaining the Xbox One “always-online” requirement).
\item \textsuperscript{19} Id. (noting that the backlash from consumers convinced Microsoft to eliminate the always-online requirement).
\item \textsuperscript{20} See Chris Arnade, \textit{Here’s Why Wall Street Has a Hard Time Being Ethical}, THE GUARDIAN, Nov. 25, 2013, http://www.theguardian.com/business/2013/nov/25/wall-street-hard-time-ethical (“After a few years on Wall street it was clear to me: you could make money by gaming anyone and everything.”).
\item \textsuperscript{22} See id. at 621 (emphasizing the importance of “nonpecuniary incentives” to support research funded by the government).
\item \textsuperscript{23} James Bessen & Eric Maskin, \textit{Sequential Innovation, Patents, and Imitation}, 40 RAND J. ECON. 611, 612 (2009) (“Theory suggests that imitation may promote innovation and that strong
holder has no incentive to do research in improving the patented product because the patent holder already has a monopoly. Other companies have no incentive to do research in improving that product because they would not be allowed to sell the improved version.24

This result has been observed many times throughout history. One notable example is the steam engine.25 After James Watt received a patent on an improved model of the steam engine, no further improvement occurred until his patent expired, despite the fact that others had ideas for improvements.26

A more recent form of the problem is patent gridlock. In 1917, no one in the U.S. was allowed to make a modern airplane.27 The state-of-the-art airplane was covered by several patents whose holders did not get along; no one could get permission to use all of the necessary techniques.28 When the U.S. entered World War I, it nationalized those patents, paying a lump sum to each patent holder.29 This allowed up-to-date airplanes to be made.30

Patent gridlock still occurs. The MPEG-2 standard is still covered by over 400 patents;31 the negotiations to develop a way to license the use of this standard took longer than the development of the standard itself.32 The licensing scheme solves one problem by creating another: the fact that society depends on a communication standard that cannot be freely used is a disaster in its own right.

Because patent gridlock results from masses of patents, it is a mistake to narrow our concern to patents of “poor quality.” To speak in terms of quality presupposes patents are desirable if they are done right. To speak of “bad patents” is to presuppose that some are “good.”

When innovations contribute to progress, the progress occurs not when

24. See id.
25. ROSEN, supra note 6, at 111–14.
26. See id. at 162–63.
28. Id. at 231–32.
29. Id. at 232.
30. See id. at 235–36
someone has a new idea but rather when the idea is used in various products or services. In cases of patent gridlock, this crucial step is blocked by the patents themselves, which have the perverse effect of directly preventing progress. More generally, the need to obtain patent licenses, plus the uncertainty of how much licensing will be necessary, is an obstacle to many technical activities.

Discussion of the effects of patents commonly disregards this uncertainty, assuming in effect that patent licensing is frictionless: a production line requires licenses for patents \( A \) and \( B \) that cost a certain amount, and the manufacturer knows this and makes arrangements accordingly. In high-tech fields, patent licensing is indeed sometimes frictionless, as, for example, with MPEG-2. In general, however, it is not—you do not know, when you design and make a product, what patents may pop up and bite you.

Arguments in favor of patents assume that the limiting factor on progress is a lack of patentable ideas. That may be true in some fields; pharmaceuticals, perhaps. In computing, however, the limiting factor is the work of combining large numbers of ideas and implementing them together in one product. Anyone doing this will have some new ideas along the way. What patents do is interfere with the limiting step in order to provide some of what is plentiful. This makes no sense.

A further reason why the patent system tends to do harm is explained by Boldrin and Levine: the patent system considers patent applicants its “customers” and is under pressure to satisfy them by reducing standards so as to issue more patents. The clearest proof of this is in the list of absurdly trivial patents cited in *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*, from 1950. With all the harm that the patent system does, and so little reason to think it serves society, there is no valid reason to continue to operate the system.

In certain fields, the effects of patents on research, and even available products, are a side issue, because patents negate important rights—the lives and health of poor people, the freedom of farmers to save and plant, the freedom of researchers to build on each other’s work. 

33. See Michael Mattioli, *Communities of Innovation*, 106 W. U. L. REV. 103, 112 (2012) (comparing real property gridlocks to patent gridlocks and noting that “[e]xcessively fragmented property rights can also lead to holdup problems”).

34. See id. at 113 (describing high transaction costs and patent gridlock issues).


36. 340 U.S. 147, 156–58 (1950) (Douglas, J., concurring) (noting, for example, a “[d]oorknob made of clay rather than metal or wood where different shaped doorknobs had previously been made of clay” (citation omitted)).

37. See infra notes 41–46 and accompanying text.
share seeds, and the freedom to use your computer as you wish.

The World Trade Organization’s ("WTO") requirement for poor countries to allow patents on pharmaceuticals has made life-saving medicine too expensive for millions in need of such medicine. India’s 1970 patent law wisely aimed to encourage the research India (and other poorer nations) needed: research on how to make drugs cheaper. Developed countries had no need to reduce the price of commonly used drugs, but India did; so it adopted a patent law that did not allow patenting a drug, but did allow patenting a method for making a drug.

The WTO (a terrible blow to democracy across the board) required India to institute patents on drugs. Novartis tried to twist this law to patent a drug that was already known before that change; when the Supreme Court of India ruled against it, Novartis threatened to block the use of other drugs in India in retaliation unless India changed its law. This threat, effectively a threat to kill sick people in India, could only be carried out using Novartis’s patents on newer or future drugs.

Large pharmaceutical companies claim that patents are needed to pay for trials of new drugs. However, we already know that letting the drug companies fund these trials corrupts the trials: trials funded by drug companies find fewer problems than independent trials. To test drugs

38. See infra note 47 and accompanying text.
39. See infra note 48 and accompanying text.
40. Agreement on Trade-Related Aspects of Intellectual Property Rights art. 27.1, Apr. 15, 1994, 108 Stat. 4809, 869 U.N.T.S. 299 [hereinafter TRIPS] (requiring all signatories to provide patents for “any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application”); see also Mattias Ganslandt, Keith E. Maskus & Eina V. Wong, Developing and Distributing Essential Medicines to Poor Countries: The DEFEND Proposal 2 (The Research Inst. of Indus. Econ., Working Paper No. 552, 2001), available at http://www.ifn.se/eng/publications/wp/2000-2005/2001_1/552_1 (noting that the TRIPS-required patent protections have negatively impacted the amount of life-saving drugs available in poor countries).
43. See TRIPS, supra note 40.
properly, we should tax the pharmaceutical companies (and other companies) more, and use that money to pay for drug trials.

It is also established that new drugs that cure grave diseases tend to come from government-funded research, while pharmaceutical companies focus on developing drugs that millions of people will take repeatedly. Evidently, the patent system is not a good system for allocating medical research funding.

Patents also deny farmers the freedom to save and share seeds. Denying farmers this traditional right gives giant corporations such as Monsanto power over agriculture, and leads to ruining farmers. Thousands of Indian farmers committed suicide as a result.47 Excluding plants and animals from the domain of patents is therefore crucial for preventing mega-corporations from controlling our agriculture.

Patents also deny users the freedom to use their computers as they wish, when they apply to programs. Today, most individuals and most businesses in technically advanced societies do computing. A computational idea patent therefore directly restricts software use by most everyone—a wrong that goes beyond economics. Since a large program combines thousands of ideas, it is likely to be vulnerable to hundreds of patents; a whole operating system could be covered by thousands of patents. Thus, patent gridlock is ubiquitous, and the only question is whether it develops into an attack.48

At this point, it is appropriate to address a frequent criticism of any proposal to dispose of patent law. Proposing to abolish patents, even in a particular field such as software, typically leads established businesses to claim that the sky would fall, using a particular fallacy: that the complex practices of business today are the only possible practices.

Business adapts to whatever rules it finds, and companies learn to take advantage of existing rules. The companies best placed to take advantage

47. See Ethan A. Huff, Monsanto Connected to at Least 200,000 Suicides in India Throughout the Past Decade, NATURALNEWS (Jan. 4, 2011), http://www.naturalnews.com/030913_Monsanto_suicides.html (noting that failed investments in genetically modified crops have resulted in 200,000 suicides in the last decade alone); Andrew Malone, The GM genocide: Thousands of Indian Farmers are Committing Suicide after Using Genetically Modified Crops, THE DAILY MAIL (Nov. 2, 2008), http://www.dailymail.co.uk/news/article-1082559/The-GM-genocide-Thousands-Indian-farmers-committing-suicide-using-genetically-modified-crops.html (noting the farm debts incurred by purchasing genetically modified seeds and the resulting suicides).
of the rules tend to become the biggest. When we propose to change one of those rules, those companies claim that “the industry depends on this rule; if you change it, our industry can’t function.” What they mean is that it will not be able to function exactly as it does today, and those companies’ particular way of doing things will become less successful.

In a free market system, however, it is normal for some companies to grow and others to contract. If we change the rules, business will adapt to the new rules. Some companies will do better and some will do worse, but this is neither here nor there. In general, a change may be good or bad, but these complaints tell us nothing about the question. To make the right decision we must resolutely disregard the self-serving arguments of businesses.

Not everyone has the strength to do that. The companies which are successful today have many ways to influence opinions, even in academia. Leslie Gelb, in the magazine Democracy Journal, spelled out how this affected academic opinion on a different question, whether the U.S. ought to conquer Iraq: “My initial support for the war was symptomatic of unfortunate tendencies within the foreign policy community, namely the disposition and incentives to support wars to retain political and professional credibility.”

Similar factors apply to the issue of patents. Much university research in economics is funded by companies with interests in patents. These companies may not do anything as crass as ordering professors to take a particular position, but influence can work more subtly, as stated by Edward Said:

Nothing in my view is more reprehensible than those habits of mind in the intellectual that induce avoidance, that characteristic turning away from a difficult and principled position, which you know to be the right one, but which you decide not to take. You do not want to appear too political; you are afraid of seeming controversial; you want to keep a reputation for being balanced, objective, moderate; your hope is to be asked back, to consult, to be on a board or prestigious committee, and so to remain within the responsible mainstream; someday you hope to get an honorary degree, a big prize, perhaps even an ambassadorship.

Said’s point referred to foreign policy, but the point applies to any field in which powerful entities have the authority to boost or retard academics’ careers.

In conclusion, to judge policy in the field of patents, we must reject the confusing term “intellectual property,” resist the influence of businesses that have adapted to profit from the patent system as it is today, and stop making innovation our primary goal. We will then see that there is nothing to justify the harm done by artificial patent monopolies. The U.S. Constitution authorizes a patent system but does not require one. We can and should abolish it.