

Why “Intellectual Property” is a Misnomer

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Key Takeaways

- ▶ Property in physical objects allocates naturally occurring scarcity, whereas extending property rights to ideas creates artificial scarcity.
- ▶ Justifications for intellectual property based on the need to internalize externalities fail to recognize that many external benefits are irrelevant to resource allocation.
- ▶ Justifications for intellectual property based on a right to the fruits of one’s labor have no limiting principle and ignore how patents and copyrights frequently impinge on that very same right.
- ▶ To deserve being described as intellectual property, patent and copyright laws would need sweeping revisions to roll back decades of misguided expansion.

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Introduction

Supporters of strong and expansive copyright and patent laws argue that these laws advance important policy goals — namely, encouraging artistic expression and technological innovation. Although these claims are widely accepted among the uninitiated, many experts are highly critical of how the laws work in practice.¹

Copyright and patent supporters deflect such criticism by buttressing their frequently spotty empirical case with sweeping moral claims. Specifically, they argue that copyright and patent laws are needed to protect “intellectual property” against “theft” and “piracy.”² Intellectual property, they contend, is an integral part of the overall system of private property that is the legal foundation of the market economy and modern prosperity. Any criticism of these laws or proposal to scale back the scope or level of protections they afford is accordingly portrayed as a defense of unjust conduct and an attack on the whole institution of private property.

The moral case for “intellectual property” has adherents across the ideological spectrum, but it is especially influential among conservatives. Given their deep ideological commitment to robust private property rights generally, conservatives are particularly inclined to support strong protections for copyrights and patents if they see them as a species of property.³

In this paper we scrutinize the moral case for copyright and patent laws and find it wanting. “Intellectual property” is a misleading description of those laws in their current form; it suggests a deep continuity between them and the larger system of private property in physical objects that simply does not exist.

Patents and copyrights obviously do create rights that can fairly be called property as a matter of positive law: They grant the holders certain rights with

¹ For a brief critical overview of copyright and patent laws, see Brink Lindsey and Steven M. Teles, *The Captured Economy: How the Powerful Enrich Themselves, Slow Down Growth, and Increase Inequality* (New York: Oxford University Press, 2017), chapter 4. For more in-depth treatments, see, e.g., William Patry, *How to Fix Copyright* (New York: Oxford University Press, 2012); James Bessen and Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovation at Risk* (Princeton, N.J.: Princeton University Press, 2008); Michele Boldrin and David K. Levine, *Against Intellectual Monopoly* (New York: Cambridge University Press, 2008).

² The term “intellectual property” also applies to trademarks and trade secrets, but this paper focuses exclusively on patents and copyrights.

³ See, e.g., the advocacy efforts of the conservative activist groups American Conservative Union (<https://conservative.org/issues/intellectual-property>) and Eagle Forum (<https://eagleforum.org/topics/patent.html>).

respect to valuable goods (the right to prevent the unauthorized reproduction of copyrighted works or patented inventions) and those rights are transferable. This fact, alone, however, cannot ground the moral claim by supporters of intellectual property that they have not merely the law and not merely expediency, but fundamental justice on their side.

Just because the positive law creates property rights does not mean those property claims are supported by justice. After all, the system of awarding taxi medallions also creates a kind of transferable property right, and nobody thinks that this fact alone makes restricting access to the taxi market a good idea. The moral defense of intellectual property amounts to a claim that patent and copyright laws are integral elements of a good social order. The mere fact that the positive law has created transferable rights does not prove that case.

Moral arguments come in two broad modes: deontological, or those concerned with notions of inherent fairness and desert; and consequentialist, which uphold moral principles for the real-world fruit they bear. Moral reasoning inevitably flips back and forth between these modes as conceptions of what is right and fair are never divorced cleanly from considerations of consequences, and criteria for what count as good consequences often depend on intuitions about right and fairness.

The moral case for intellectual property is made in both modes. The consequentialist case claims a fundamental continuity between patent and copyright laws and private property generally in that both function to incentivize the efficient allocation of resources by “internalizing externalities” — that is, making economic actors absorb both the costs and benefits of their actions.⁴ The deontological argument, extrapolating from the philosopher John Locke’s justification for the initial appropriation of private property, asserts that patent and copyright holders — like Lockean homesteaders in the state of nature —

⁴ It is important to distinguish between consequentialist arguments for treating patents and copyrights as property and consequentialist policy arguments for specific provisions of patent and copyright law. In the former case, protecting patents and copyrights is justified on the ground that these property rights, like property rights generally, merit respect and enforcement; the treatment of patents and copyrights as property is then justified on the ground that patents and copyrights yield the same broadly benevolent consequences that private property does generally. In the latter case, specific provisions of patent and copyright law are justified on the ground that the specific benefits of those provisions outweigh the costs.

“mix their labor” with the physical world and thereby establish a right to the material fruits of their labors.⁵

Both modes of justification have a certain superficial plausibility. But when subjected to sustained critical scrutiny, they fail to hold up. Admittedly, there are defensible moral intuitions on which to make a case for limited forms of copyright and patent protection. But as we will show, copyright and patent laws grounded in that secure moral foundation would look dramatically different than those in force today.

The Fundamental Difference Between Intellectual and Physical Property Rights

Before delving into detailed criticisms of the allegedly deep connection between intellectual property and property rights in physical objects, let’s first consider a simple hypothetical story to see how well this asserted linkage fits with your preexisting moral intuitions.

Imagine two farms sitting side by side in an otherwise virgin wilderness, each of them homesteaded by a husband-and-wife couple (let’s call them Fred and Wilma and Barney and Betty) — two parcels of newly created private property appropriated from the commons by productive labor. One day, as Fred and Wilma are both working outside, they both notice Betty walking through the orchard of apple trees that Barney and she had planted some years back and which are now just ready to bear fruit for the first time. As Betty picks some of the first ripening apples to use in baking a pie, she sings an enchantingly lovely ballad that she and Barney had made up together back when they were courting. For the rest of the day Wilma can’t stop thinking about that beautiful song, while Fred can’t stop thinking about those trees full of delicious apples. That night Wilma sings the song to her baby daughter as a lullaby. Fred, meanwhile, sneaks over onto Barney and Betty’s property, picks a sack full of apples, tiptoes back to his property and proceeds to eat the lot of them, feeding the cores to his pigs before heading back inside.

⁵ Although the Lockean argument dominates the debate in the United States, in Europe there is a strong tradition of viewing copyright as a natural right based on the intimate connection of artistic works to the personality of the author, called “personality theory.” We do not address this personality-based argument here. For differences generally between American and European approaches to copyright, see Peter Baldwin, *The Copyright Wars: Three Centuries of Trans-Atlantic Battle* (Princeton, NJ: Princeton University Press, 2014).

Do you think that Fred and Wilma both did something wrong? Are they both thieves? Did both of them violate Barney and Betty's rights? After all, Fred stole their apples, and Wilma "stole" their song — that is, she sang it to someone else without asking for permission. If you're having trouble seeing Fred and Wilma's actions as morally equivalent, it's because of a fundamental difference between the two types of "property" they took from Barney and Betty.

That fundamental difference is that Barney and Betty's song, like all ideal objects, is a nonrivalrous good. In other words, one person's use or consumption of it in no way diminishes the ability of others to use or consume it. As expressed with characteristic eloquence by Thomas Jefferson (who perhaps not coincidentally viewed patents and copyrights with skepticism), the "peculiar character [of an idea] is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me."⁶

By contrast, physical objects like apples are rivalrous: Once Fred and his pigs had finished devouring the ones Fred stole, they were gone and nobody else could consume them. Even when physical objects aren't physically consumed by their owners — think paintings or plots of land — there is still unavoidable rivalry in using, enjoying, and disposing of them. The owner exercises that control over the owned object, and therefore nobody else does.

This is why it's clear that Fred inflicted harm on his neighbors, since he took the fruit that they grew and now they don't have it anymore. But Barney and Betty still have their song; the fact that Wilma sang it did nothing to prevent them from singing it anytime they want to. So, if Wilma did harm to Barney and Betty, what exactly is it?

Because ideal goods are nonrivalrous, they are not scarce in the way that physical objects are. In other words, there is no either/or decision that has to be made about who gets to use and control them — that is, about who owns them. An infinite number of people can sing the same song, tell the same story, or use the same design for a widget without interfering with the ability of anyone else to do

⁶Thomas Jefferson, "To Isaac McPherson," (August 13, 1813) <<https://founders.archives.gov/documents/Jefferson/03-06-02-0322>>. Jefferson rejected the idea of a patent system justified under a natural rights framework. His letter includes the passage, "[c]onsidering the exclusive right to invention as given not of natural right, but for the benefit of society, I know well the difficulty of drawing a line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not." (Emphasis added).

the same.⁷ But if one person eats a steak, nobody else can and it's gone; if one person is shooting a basketball, nobody else can shoot that ball at the same time; if a developer wants to build a shopping center on a piece of land but the neighbors want to leave it as a park, they can't both get their way.

The inherent scarcity of rivalrous physical goods means that there is an ever-present potential for conflict over who gets what. It's either/or, zero-sum: For every disputed object there's one winner and a world of losers. In Hobbes' grim vision of a state of nature without government, and thus without legally enforceable ownership claims, the "war of all against all" is ultimately a contest over who can use and control scarce valuable resources.

It is the scarcity of physical objects, and the potential for conflict that such scarcity creates, that is at the heart of why we have private property at all. When physical objects are subject to potentially conflicting claims for possession, use, control, and consumption, it is necessary to devise some system for assigning those rights. Around the world, in countless different settings and cultures, private property evolved as the predominant method for allocating rights over land and physical objects of value.

“Because ideal goods are nonrivalrous, they are not scarce in the way that physical objects are.”

Property rights vary depending on the property in question — water rights are different from land rights, and both are different from rights to personal possessions. But in general, a right to property includes a number of claims that the owner may make, such as the ability to sell, bequeath, consume, or destroy. In this “bundle” of rights, the most fundamental is the right to exclude, according to philosopher David Schmidtz.⁸ Because physical goods are rivalrous, none of the other rights in the bundle can be exercised effectively without the foundational right to tell other people to keep their hands off your stuff.

⁷See Tom Palmer, “Are Patents and Copyrights Morally Justified? The Philosophy of Property Rights and Ideal Objects,” *Harvard Journal of Law and Public Policy* 13, no. 3, (Summer 1990) <<http://tomgpalmer.com/wp-content/uploads/papers/morallyjustified.pdf>>.

⁸David Schmidtz, “The Institution of Property,” (June 2012) <<https://davidschmidtz.com/sites/default/files/research-paper/3/InstitutionProperty2012.pdf>>.

When human beings first migrated into some previously unpopulated area, the default institutional setting was to treat land and valuable resources as a commons. That arrangement works fine as long as use and consumption stay below “carrying capacity.” In this situation, use and consumption of any particular object — say, an edible animal — is rivalrous and will need to be allocated in some way (possibilities include “first come, first served” as well as sharing among a group), but for resources generally there is no meaningful scarcity. In a forest teeming with game, one person’s hunting leaves nobody worse off.

But as population grows and hunting in that forest becomes more intensive, at some point the threshold of carrying capacity will be crossed. Now each additional hunter makes hunting harder for everybody else — and indeed threatens the continued availability of game in the future. In this environment, each person has an incentive to consume as much as possible as quickly as possible. If they don’t, another person will until the resource is eventually depleted, leaving nothing for anyone to take. When the threat of such a “tragedy of the commons”⁹ arises, it is necessary to assign property rights to prevent the depletion of a resource.

Schmitz uses the analogy of property rights a system of traffic lights. What makes traffic lights useful are the red lights, since having no lights is the equivalent of a green light for everyone.¹⁰ This isn’t a problem on a seldom traveled country road, but things change when there are many cars competing for the same right of way, making collisions likely. Similarly, when all the lights to acquire property are “green,” chaos eventually ensues as the result of violent collisions or gridlock or resource depletion. Property rights direct traffic in goods and keep commerce flowing by giving a green light to the designated owner and a red light to the rest of the world. The grant of exclusive ownership rights — rights to exclude everybody else — keeps traffic moving in a world where road space is rivalrous.

In his seminal article, “Toward a Theory of Property Rights,” Harold Demsetz cites the example of rights to fur trapping in what is now Quebec.¹¹ In the 18th

⁹Garrett Hardin, “The Tragedy of the Commons,” *Science* 162, no. 3859 (December 1968): 1243-1248, <<https://science.sciencemag.org/content/162/3859/1243.full>>.

¹⁰David Schmitz, “Functional Property, Real Justice,” (May 2010) <<http://davidschmitz.com/sites/default/files/research-paper/3/functionalproperty.pdf>>.

¹¹Harold Demsetz, “Toward a Theory of Property Rights,” *The American Economic Review* 57, no. 2 (May 1967) <https://econ.ucsb.edu/~tedb/Courses/Ec100C/Readings/Demsetz_Property_Rights.pdf>.

century, the pelts from beavers were prized commodities, creating a strong incentive to kill and skin as many beavers as possible. The problem, of course, was that this incentive threatened the future of the booming fur trade for everyone by perversely encouraging the hunting of beavers to extinction. The solution devised by Innu tribes inhabiting the region was to divide up parcels of land on which groups of hunters could freely hunt beavers for their pelts. The owners of those parcels now had a strong incentive to make sure the beaver population wasn't over-hunted and managed their trapping behavior accordingly.¹²

While some version of property rights is needed to manage scarcity, there are alternatives to private property — namely communal property (called a “restricted-access commons” by political economist Elinor Ostrom¹³) and state ownership. These alternative regimes can resolve conflicts, maintain the peace, and husband resources effectively, and both have an important place in the legal structures of modern advanced economies. Airspace and many waterways are treated as communal resources, while state ownership is used for government facilities and public amenities such as parks.

Nevertheless, private property offers important advantages that have made it the dominant institutional arrangement. To fulfill their desired functions, communal and state property rights require buttressing by strong social norms — against conflicting uses by group members in the communal setting, and in the case of state ownership to ensure that government officials exercise their powers for the benefit of all rather than private enrichment. Private property, by contrast, economizes on the need for public virtue by giving owners direct personal incentives to use their property wisely and productively: If they make their land more valuable by planting fruit trees, they profit personally from the investment; if they neglect to maintain their home, they bear the burden when it becomes dilapidated.

Another key advantage of private property, especially relevant in the modern world, is that it decentralizes investment decisions and thus facilitates wide-ranging experimentation regarding new ways to invest resources more productively. It is impossible to know in advance which innovations will succeed

¹² Note that subsequent scholarship has cast doubt on the account of the origin of Innu property rights on which Demsetz relied; nevertheless, the basic logic of his argument still holds.

¹³Elinor Ostrom and Charlotte Hess, “Private and Common Property Rights,” (November 2007) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1936062>.

and which will fail, so sustained, successful innovation — which is the engine of modern economic growth — can be achieved only through an ongoing process of trial and error on a mass scale.¹⁴ Decentralizing ownership of productive assets via the private property system facilitates this process better than any known alternative, as evidenced by the overwhelmingly superior performance of market economies relative to socialist central planning during the 20th century.

Private property thus offers robust solutions to the incentive problems and knowledge problems that attend decisions about how to use resources for the betterment of all. One noteworthy aspect of private property's robustness is that private claims over valuable resources can emerge “naturally” without the involvement of government or any central authority. In other words, “natural rights” to property can be asserted and defended — precisely because the goods in question are scarce, i.e., capable of exclusive possession. The possessor of land can fence or post her property and keep all her valuable goods within those boundaries, and she can defend those goods herself against trespassers. How successfully property claims can be defended by self-help is of course an open question — hence the utility of government enforcement and the transition from natural rights to civil rights.

Precisely nothing in the above discussion of the emergence and utility of private property rights applies to private property in ideal objects. Property rights in ideas aren't needed to prevent conflicts over the use of ideas because ideas are nonrivalrous: As many people as want to can use an idea without preventing or interfering with others' ability to do likewise. The traffic lights can be green all the time for everybody — which is the same as saying there can be no traffic lights at all — without resulting in collisions or gridlock or depletion of anything.

Furthermore, despite the asserted “natural right” to intellectual property, it is noteworthy that property in ideal objects can never arise naturally — that is, without the intervention of a central authority. Self-help in stopping “theft” of their song simply isn't possible for Barney and Betty: If they insist on singing in earshot of others, they can't monitor their listeners all the time for the rest of their lives to make sure nobody sings it again to others, and they can't monitor those others because they don't know who they are.

Property in ideal goods is only possible via top-down state action. The first precursors of patents appear to date back to ancient Greece, and early copyrights

¹⁴ See Nathan Rosenberg and L.E. Birdzell, Jr., *How the West Grew Rich*, (New York: Basic Books, 1986), 258.

were introduced in 15th-century Venice, though these were more clearly designed as “privileges” for the politically connected and as tools for censorship. In England, patents began as royal grants of monopolies (“letters patent”) for the production and sale of various goods; in 1623 Parliament passed the Statute of Monopolies to restrict this royal power to grants for a set term of years to producers of new inventions.¹⁵ English copyright emerged out of monopoly grants to publishers in exchange for their enforcing royal censorship; when censorship lapsed and several attempts to maintain the publishers’ monopoly failed in Parliament, publishers began campaigning for temporary monopolies for authors instead (reckoning that those monopolies would usually be assigned to publishers) and achieved their aim with the Statute of Anne in 1710.¹⁶

Rather than allocating natural scarcity, private property in ideal goods creates artificial scarcity. For a delimited period of time, patents and copyright grant the holders exclusive rights to use certain ideas in certain ways and ban everyone else from doing so. Ideas, by nature nonexcludable, are made exclusive by force of law.

Thus, at least in its initial effects, creating private property in ideal goods looks like gratuitously reducing other people’s rights for the benefit of the patent or copyright holder. For an analogy in the world of physical goods, consider all those scenic castles along the Rhine River that cruising tourists now ooh and aah over. During the days of the Holy Roman Empire, the Rhine was a vital artery for trade, and at certain points the river was narrow enough that it was practical to place large iron chains across it and charge a toll to all ships that wished to pass. Various fortifications were established to put up these barriers, with the rights to collect tolls granted as patronage to supporters of the Empire.¹⁷

Here is private property as a perverse traffic light scheme: The red lights aren’t intended to facilitate cross-traffic by the public but simply to gouge travelers for private gain. There was little risk of the river becoming congested — negative

¹⁵ See Boldrin and Levine, *Against Intellectual Monopoly*, 44. Compared to the standards of the time, when monopolies with broad scope were granted at the whim of the monarch to the politically connected, the Statute of Monopolies “amounted to a gigantic liberalization or deregulation of the British Economy...and the establishment of restrictive — by current standards, extremely restrictive — criteria for patents.”

¹⁶ See Alfred C. Yen, “Restoring the Natural Law: Copyright as Labor and Possession,” *Ohio State Law Journal* 51, no. 2 (January 1990) <<https://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1160&context=lsfp>>.

¹⁷John Kay, “Robber barons of the Rhine,” *Financial Times*, August 17, 2010, <<https://www.ft.com/content/c3e6d1bc-aa31-11df-9367-00144feabdc0>>.

externalities from river traffic were virtually nonexistent. In this case, establishing a property right to select portions of the Rhine was done only to benefit the politically connected, with no accompanying incentive to improve the carrying capacity of the river.

“Rather than allocating natural scarcity, private property in ideal goods creates artificial scarcity.”

It is possible — and this is the primary consequentialist justification for patents and copyrights — that by creating temporary artificial scarcity, patents and copyrights will alleviate scarcity in other, more important respects. Although each new idea is on its own non-scarce (i.e., nonrivalrous), the supply of useful ideas certainly is scarce. Giving patent and copyright holders temporary monopolies and thereby (potentially) raising the returns they get from originating new ideas creates added incentive to produce those ideas, and as a result the stock of useful knowledge could be larger over time than would otherwise have been the case.

This is what the economist Joan Robinson called “the paradox of patents.” In her book *The Accumulation of Capital*, she argued that “[t]he justification of the patent system is that by slowing down the diffusion of technical progress it ensures that there will be more progress to diffuse.”¹⁸ By granting temporary monopolies to those who create new inventions and artistic works, the patent and copyright systems create an incentive to innovate that otherwise would not exist, with the intended effect of increasing the supply of new inventions and works.

But this long-term effect of scarcity alleviation cannot simply be assumed. Perhaps the promise of a monopoly really is necessary to create the next internal combustion engine or great American novel. But the soundness of such paradoxical reasoning needs to be demonstrated, and the burden of proof should be placed on those who want to put naturally free ideas in cages, for the same reason the burden of proof for any policies that infringe on liberty should be on the infringers.

¹⁸Joan Robinson, *The Accumulation of Capital*, (London: Palgrave Macmillan, 1956), 87.

We will now go on to consider the various justifications for a moral claim to intellectual property, but the discussion thus far should suffice to induce some healthy skepticism about those justifications. What is clear is that, because of the differences in subject matter, intellectual property is fundamentally different from physical property. It creates scarcity where there was none before, as opposed to physical property, which only allocates scarcity that preexisted the allocation. The fundamental reason why property rights over physical objects emerged in the first place is thus lacking in the case of intellectual property. This lack explains why, if there is a “natural right” (in other words, a moral claim independent of any positive law) to intellectual property, its assertion and defense did not and cannot emerge naturally — that is, through the bottom-up actions of private individuals without recourse to the power of central authority. Intellectual property is a creature of government intervention, and the moral justification for that intervention will need to be established rather than simply assumed.

The Limits of “Internalizing Externalities” as a Justification for Property Rights

Let us begin with the consequentialist case for seeing a decisive continuity between physical and intellectual property. Notwithstanding the fact that the former allocates scarcity and the latter artificially creates it, the argument is that both share a deeper common function — a function more basic than allocating scarcity because it applies to both rivalrous objects and nonrivalrous ideas. The asserted common function is that both classes of property work to create and align incentives that promote the efficient allocation of resources. More specifically, private property, whether physical or intellectual, functions to “internalize externalities” — in other words, to ensure that both beneficial and harmful effects of certain actions are taken into account by the relevant actors.

In the primeval commons, externalities are rampant. If you build a shelter in the woods one day, somebody else may occupy it the next and get the benefit of it from then on. If you are careless and start a fire that chases all the game away, you can move on and leave others to face the loss. But when resources are privately owned, benefits and harms are “internalized” to the agents causing those benefits and harms. You build a cabin on your property, you live in it; you burn down your property, you lose everything. The immense social usefulness of this arrangement is the effect on incentives: Property owners gain when they

improve their property and they lose when they waste or spoil it. When these incentives are diffused throughout a property-owning society, virtually everybody in that society gains as a result.

The defense of intellectual property as part of the larger incentive-aligning, efficiency-promoting private property system was developed primarily by economists and legal scholars working in the “law and economics” tradition. Of particular importance was the work of the economist Harold Demsetz, whose pathbreaking and widely cited 1967 paper “Toward a Theory of Property Rights” first explicitly developed the argument that private property arises to internalize externalities.

In that paper, Demsetz tells the (possibly inaccurate) story related earlier of how the rise of the fur trade prompted the emergence of private property in land among the Innu of present-day Canada. We already saw how this development can be understood as a means of allocating a resource whose scarcity had recently become salient. The same story can be told through the lens of externalities: The rising value of fur-bearing animals created the incentive to internalize the effects of hunting them to owners of discrete parcels. The same logic, according to Demsetz, explains the emergence of private property generally. “[P]roperty rights,” he argued, “develop to internalize externalities when the gains of internalization become larger than the costs of internalization.”¹⁹

In that same paper, Demsetz points out that the logic of internalizing externalities also applies to the emergence of private property in ideas under patent and copyright law. Though he only addresses this claim briefly, his argument is essentially that because it is easy to “free ride” off the innovations of others in the case of ideal objects, property rights must be established in ideal objects to preserve the incentive to innovate. In Demsetz’s words:

If a new idea is freely appropriable by all, if there exist communal rights to new ideas, incentives for developing such ideas will be lacking. The benefits derivable from these ideas will not be concentrated on their originators. If we extend some degree of

¹⁹ Demsetz, “Toward a Theory of Property Rights,” 350.

private ownership to the originators, these ideas will come forth at a more rapid pace.²⁰

It must be stressed that Demsetz's main argument is a positive, not a normative one: Private property rights will emerge when the benefits of internalization exceed the costs *from the perspective of the actors who stand to gain* — not necessarily from the perspective of society as a whole. For an example of how these two perspectives can diverge, recall those picturesque castles along the Rhine. For their owners, the benefits of “privatizing” a portion of the river (and thereby internalizing some of the value of river traffic by charging tolls) clearly exceeded the costs (retaining people to lift a heavy chain across the river as boats approached); nevertheless, nobody would argue that this development of private property rights benefited society as a whole.

Notwithstanding this example, it seems clear that Demsetz thought the logic of privatization he described was generally beneficial. And the consequentialist defense of intellectual property rests on the assumption that internalizing externalities through privatization, whether in the physical world or the realm of ideas, is virtually always a good thing. Based on this assumption, the emergence of copyright and patent laws to begin privatizing the intellectual commons looks like an important step forward in the broader evolution of property rights. And the trend in recent decades toward aggressively expanding the scope and raising the level of protection looks like the continuing march of progress. The logic is simple: If internalizing externalities is good, then the more the merrier. “The logic of property rights,” as law professor Paul Goldstein wrote, “dictates their extension into every corner in which people derive enjoyment and value from literary and artistic works. To stop short of these ends would deprive producers of the signals of consumer preference that trigger and direct their investments.”²¹

Yet the assumption that internalizing externalities is generally beneficial — the assumption on which rests the asserted deep continuity between physical and intellectual property — does not survive close scrutiny. When it comes to incentivizing innovation or artistic expression, what matters is that innovators receive *sufficient* returns to enable their innovative or expressive activity. It is emphatically not the case that innovators and artists need to capture *all* or even

²⁰ Ibid., 359.

²¹ Paul Goldstein, *Copyright's Highway: From Gutenberg to the Celestial Jukebox*, (Stanford: Stanford University Press, 2003).

most of the returns that accrue from their activities. Excessive internalization, indeed, can actually be destructive.

Externalities can be found everywhere in our crowded, interdependent world, but not all externalities are created equal. Some, like those that result from pollution or overuse of a commons, can distort the allocation of resources in a way that reduces overall welfare. Many others, though, have no such effect.

“It is emphatically not the case that innovators and artists need to capture all or even most of the returns that accrue from their activities.”

The only relevant externalities are those for which internalizing them (by compensating an actor who creates an external benefit or requiring compensation from one who creates an external cost) would change the behavior of the parties engaging in externality-producing activities.²² Suppose you bake a pie, in the process creating an aroma that is enjoyable for all who pass by your house. This is a positive externality, and under a relentless application of Demsetz’s logic you should be granted a property right to the air around your house so you can charge others for the pleasant odor and capture more of the benefits. This, of course, would be ridiculous — because in this case the externality is irrelevant. You bake pies because you enjoy baking and your family loves pie, not to earn income, and whatever pittance you could make by charging passersby wouldn’t motivate you to bake more frequently. Since your motivations for baking pies are independent of the spillover benefits for others, internalizing the externality would have no effect on allocative efficiency.

Externalities that are irrelevant to efficient resource allocation are widespread in the domains of artistic creation and technological innovation. Accordingly, the assumption that incentives to create and innovate will be adequate only through vigorous copyright and patent enforcement is frequently false.

Look, for example, at recorded music — which, because of the rise of online file-sharing, is now subject to rampant “theft” and “piracy.” Between 1998 (Napster

²²See Brett M. Frischmann, “Evaluating the Demsetzian Trend in Copyright Law,” *Review of Law and Economics* (2006), 666 <<https://www.ssrn.com/abstract=855244>>. See also James M. Buchanan and William Craig Stubblebine, “Externality,” *Economica* 29, no. 116 (November 1962): 371–384 <https://www.jstor.org/stable/2551386?seq=1#page_scan_tab_contents>.

was founded in 1999) and 2018, real U.S. music industry revenues nosedived by over 50 percent.²³ Although other factors contributed to the revenue freefall (including the shift in demand from more expensive bundled products — records and CDs — to cheaper singles, and the more recent move from owning music to streaming), unauthorized copying played an important role. Yet despite this fact, the supply of new music has been expanding rapidly, from 40,000 new albums released in 1999 to almost 80,000 in 2011.²⁴

How is this possible? How was a significant decline in effective copyright protection accompanied by a surge in creative expression? For one thing, the same digital revolution that gave us file sharing also slashed the costs of recording and releasing music. Accordingly, the net effect on the financial incentives facing musicians may be a wash or even favorable.

A more fundamental explanation lies in the dominance of nonpecuniary motivations in artistic creation. The overwhelming majority of creative works don't sell much, but the intrinsic pleasures of artistic self-expression are so powerful that people will engage in creative pursuits regardless of the economics. As society gets richer and more people have the leisure to engage in creative activity, and as new technologies continue to drive down the costs of self-expression, we can expect an ever richer bounty of cultural works no matter what the economic payoffs for a lucky few might be. Strong copyright protection may be important for bolstering the profits of giant media companies, but it is far from clear that it is needed to secure a vibrant cultural marketplace.

In the field of innovation, it is noteworthy that many firms that could seek patent protection choose not to do so and flourish all the same. The heavy reliance of the internet on open-source software is a striking case in point. Linux now has the largest installed base of all general-purpose operating systems because of its use in Android smartphones; most websites run on one of two open-source web servers — Apache and Nginx; leading server-side languages for websites include Perl, PHP, Python, JavaScript, and Ruby; and BIND is the most widely used Domain Name System for connecting domain names to numerical Internet Protocol (IP) addresses.

²³ Recording Industry Association of America, "U.S. Sales Database," <<https://www.riaa.com/u-s-sales-database/>>, accessed June 25, 2019.

²⁴Glynn S. Lunney, "Copyright on the Internet: Consumer Copying and Collectives," in *The Evolution and Equilibrium of Copyright in the Digital Age*, eds. Susy Frankel and Daniel Gervais (Cambridge: Cambridge University Press, 2014), 292–93.

Meanwhile, consider all the creative and innovative activity that occurs outside the scope of copyright and patent protection. There is no lack of new ideas in fashion, cuisine, and comedy despite the fact that clothes designs, recipes, and jokes do not qualify for treatment as intellectual property. Think of all the organizational innovation in the business world that has occurred without the benefit of government-conferred temporary monopolies: the multidivisional corporation, the R&D department, the chain store, franchising, statistical process control, just-in-time inventory management, and so much more.

A simple-minded application of Demsetz's logic — that since private property internalizes some important externalities, property rights should be extended wherever externalities can be internalized — is incapable of explaining the flourishing of creativity and innovation in the “negative space”²⁵ of the cultural and technological commons. The mystery is resolved, though, by recognizing that the external benefits of good new ideas are frequently irrelevant to efficient resource allocation. They achieve relevance — to the point of constituting a market failure in the absence of intellectual property rights — only under very specific conditions: namely, when high fixed costs of creation or innovation are combined with low costs of imitation by competitors. In those particular situations, artists and inventors may be deterred from investing in creation or innovation because they fear the inrush of imitators will prevent them from recouping their costs. When upfront costs aren't that high and successful imitation isn't easy, creators and innovators still have adequate incentives to do their thing even without the benefit of temporary monopolies. This state of affairs is commonplace, even the norm.

The problems with the consequentialist case for extensive intellectual property rights go beyond the fact that such rights are frequently unnecessary to bring about the desired consequences of thriving artistic creation and innovation. Even worse, those desired consequences are too often affirmatively *thwarted* by the overextension of property rights into the realm of ideas.

In the case of copyright, excessive internalization is an impediment to the process of borrowing that is essential for the growth of creative works. While each artist may contribute new ideas to the cultural landscape, their contributions are based on the previous body of work. We all begin as consumers

²⁵ Kal Raustiala and Christopher Jon Sprigman, “When Are IP Rights Necessary? Evidence from Innovation in IP's Negative Space,” (September 2016) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2838555>.

of ideas — and then some of us go on to create new ones.²⁶ Take the case of *Star Wars*. The Jedi, Darth Vader, and the Death Star were all new in 1977, but George Lucas relied heavily on older ideas to make them possible. It is common knowledge that Lucas borrowed from Joseph Campbell's *Hero With a Thousand Faces* when crafting the hero's journey of Luke Skywalker. But the borrowing didn't stop there. The famous opening crawl is virtually identical to those at the beginning of episodes of *Flash Gordon Conquers the Universe*. Telling the story from the perspective of two lowly characters, the droids R2-D2 and C-3PO, was inspired by Kurosawa's *The Hidden Fortress* — something Lucas freely admits.²⁷

But while Lucas's borrowing was permissible under copyright law, other borrowing is not, as current law gives rights holders control over broadly defined "derivative works." A number of *Star Wars* fan films have been shuttered or severely limited in their scope (mostly by prohibiting commercialization) due to threats of litigation by Disney. The genre of fan fiction is a legal gray area, with many tests to determine whether it constitutes fair use, including commercialization and how "transformative" the work is. While the vast majority of these works will never amount to much, their existence is more tolerated than established as a clear-cut case of fair use. A more aggressively enforced copyright regime would almost certainly be the end of most fan fiction.

While fan fiction is allowed to eke along in the legal twilight, what is not allowed is full, robust competition in the development and commercial marketing of artistic works based on beloved and iconic characters created over the past century. Audiences have been able to enjoy multiple reimaginings of the Frankenstein and Dracula stories over the years because, mercifully, Mary Shelley and Bram Stoker's novels are in the public domain. But we are stuck with monopolistic control over Superman and Batman, James Bond, the far-flung worlds of *Star Trek* and *Star Wars*, and much, much more — and we will continue to be stuck for many years to come, given 95-year copyright terms for corporate rights holders. It is difficult to see how this suppression of artistic creation can be seen as a positive feature of the intellectual property regime.

²⁶See Julie E. Cohen, "Creativity and Culture in Copyright Theory," *UC Davis Law Review* 40 (2007), 1179 <https://lawreview.law.ucdavis.edu/issues/40/3/copyright-creativity-catalogs/DavisVol40No3_Cohen.pdf>.

²⁷Marc Lee, "Film-Makers on Film: George Lucas," *The Telegraph*, May 14, 2005 <<https://www.telegraph.co.uk/culture/film/filmmakersonfilm/3642010/Film-makers-on-film-George-Lucas.html>>.

“Excessive internalization is an impediment to the process of borrowing that is essential for the growth of creative works.”

Beyond missing out on works that might have been, today’s copyright regime also deprives us of access to much of our cultural legacy — in diametric opposition to the stated purposes of the law. A fascinating survey of books in Amazon’s warehouses found a shocking dearth of selections from much of the 20th century: more than twice as many books from the 1850s are on sale as books from the 1950s.²⁸ The reason is that, as of now, all books published since 1924 are still under copyright, yet the overwhelming majority are out of print. Booksellers that might want to release new print editions, or even extremely inexpensive electronic editions, are deterred from doing so. Meanwhile, the nation’s libraries and archives are filled with millions of films, television programs, musical recordings, and photographs that cannot be made available to the public online because nobody knows who owns the rights; such “orphan works” are an unavoidable feature of long copyright terms and the absence of registration and notice requirements (which were eliminated after 1976).

Perverse outcomes are also distressingly common with patents. There is a familiar trade-off in patent law between the interests of innovators (who enjoy temporary monopolies) and those of consumers (who are forced to pay monopoly prices). What is less well known is the trade-off between “upstream” and “downstream” innovators: What benefits the former does harm to the latter. Technological innovation is often an incremental and sequential process, and “downstream” innovators make progress by improving on prior innovations or combining them in new ways. But when the existing ideas are protected by patents, innovators who seek to build on those ideas may find themselves legally blocked — either by the requirement to pay steep licensing fees, or by the

²⁸Rebecca J. Rosen, “The Missing 20th Century: How Copyright Protection Makes Books Vanish,” *The Atlantic*, March 30, 2012, <<https://www.theatlantic.com/technology/archive/2012/03/the-missing-20th-century-how-copyright-protection-makes-books-vanish/255282/>>.

inability to obtain the necessary licenses, or by infringement actions after the fact if the upstream patents weren't known to the innovators beforehand.²⁹

“Patent thickets can cause serious coordination and holdup problems that amount to a tragedy of the anti-commons.”

Such problems can become especially acute in fields of contemporary technological endeavor — such as biomedicine, semiconductors, and software — where promising innovations may run afoul of a whole slew of patents by multiple patent holders. Such “patent thickets”³⁰ can cause serious coordination and holdup problems that amount to a “tragedy of the anti-commons.”³¹ In the familiar tragedy of the commons, lack of clear ownership rights creates perverse incentives that lead to resource depletion; here the mirror-image problem arises, as an excess of overlapping and perhaps conflicting property claims leads to underutilization of resources — in particular, underinvestment in incremental, sequential innovation.

Profiting from this tragedy are so-called nonpracticing entities (NPEs), derisively referred to as “patent trolls,” which exploit patent thickets as their business model. These entities amass portfolios of patents purely for the purposes of initiating infringement lawsuits. Holding patents often of low quality, trolls abuse a system in which settling even spurious claims is cheaper than litigating them. James Bessen and Michael Meurer estimate that the direct costs of defending patent troll suits (i.e., lawyers' and licensing fees) totaled \$29 billion in the year 2011 alone.³² More recent studies show that downstream innovation decreases when patents are acquired by NPEs.³³

²⁹ See James Bessen and Eric Maskin. “Sequential innovation, patents, and imitation,” *The RAND Journal of Economics* 40, no. 4 (Winter 2009): 611–635, <https://scholar.harvard.edu/files/maskin/files/sequential_innovation_patents_and_imitation.pdf>.

³⁰ See Carl Shapiro, “Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting,” in Adam B. Jaffe, Josh Lerner, and Scott Stern, eds., *Innovation Policy and the Economy, Volume 1* (Cambridge, Mass: MIT Press, 2001), 119–150.

³¹ For a discussion of the tragedy of the anti-commons in the intellectual property context and elsewhere, see Michael Heller, *The Gridlock Economy: How Too Much Ownership Wrecks Markets, Stops Innovation, and Costs Lives* (New York: Basic Books, 2008).

³² James Bessen and Michael J. Meurer. “The Direct Costs from NPE Disputes,” *Cornell Law Review* 99, no. 2 (2014) <<http://cornelllawreview.org/articles/the-direct-costs-from-npe-disputes/>>.

³³ David S. Abrams, Ufuk Akcigit, Gokhan Oz, and Jeremy G. Pearce, “The Patent Troll: Benign Middleman or Stick-Up Artist?” (March 2019), <<https://www.nber.org/papers/w25713>>.

Despite its superficial plausibility, the assumption that internalizing externalities always leads to improved resource allocation is simply not true in the realm of ideas. Artistic creativity and technological innovation can thrive without intellectual property protection, and an excess of such protection can actually worsen incentives for artists and inventors.

“In the name of promoting innovation, extending intellectual property too far can degenerate into a wealth-destroying game of rent-seeking.”

And why is this? Because creativity and innovation don't depend on capturing all or the vast majority of the resulting gains; on the contrary, the reason these things are so beneficial — the reason they are the engines of economic progress and rising living standards — is that the vast majority of the gains are shared with the rest of us. Only a paltry 3.7 percent of the total present value of social returns to innovation from technological advances over the period 1948 to 2001 were captured by the innovators themselves, according to a study by the economist William Nordhaus.³⁴ All the rest went to consumers in the form of lower prices, better goods or services, and higher quality of life. Capitalism is the greatest free lunch ever devised.

Of course, artists and innovators need to earn a return, but there is no warrant whatsoever for saying that they need to capture all or most of the returns that flow from what they do. All they need is a return sufficient to motivate their activity; everything beyond that is a windfall. Indeed, economists have a name for returns that exceed the amount needed to call a particular factor of production into use, and that name is rent.

Don't get us wrong: A little rent for innovation helps make the world go round. The huge profits earned by the most successful innovative firms, and the enormous fortunes amassed by their founders and key employees, act as a kind of lottery jackpot that encourages people to start new firms and take big risks on new ideas. The fact that a lucky few receive rents from innovation is thus all to the good; moreover, rents from innovation tend to be temporary, as their

³⁴William D. Nordhaus “Schumpeterian Profits and the Alchemist Fallacy Revised,” (April 2005) <<https://economics.yale.edu/sites/default/files/files/Working-Papers/wp000/ddp0006.pdf>>.

existence calls competitors into the marketplace who do their best to whittle away those supernormal profits.

But the idea that all innovators need to receive excess returns, protected by the force of law, is badly misguided. In the name of promoting innovation, extending intellectual property too far can degenerate into a wealth-destroying game of rent-seeking.

The Mismatch Between Intellectual Property and the Right to the Fruits of One's Labor

The deficiencies in the consequentialist case for the unity of intellectual and physical property are not due to a lack of intellectual sophistication. That case boasts an elaborately constructed (if ultimately unsound) theoretical architecture and, in keeping with its consequentialist orientation, it strives (if unsuccessfully) to ground its conclusions in empirical observation. Among scholarly defenders of patents and copyright as property, it is far and away the dominant mode of justification.

All that said, the consequentialist case for intellectual property comes up short on moral passion. It recognizes tradeoffs, sees costs as well as benefits, and offers only relative support (the system works better overall compared to other alternatives) rather than establishing a clear moral imperative. As the legal scholar Richard Epstein, a prominent supporter of strong patent and copyright protection on consequentialist grounds, puts it:

The defenders of intellectual property only have to show that it meets the same kind of standards that are appropriate for physical property. That case is not certain in any logical sense (just as it is not certain for tangible property). But the same functional justifications that explained why it was permissible to limit liberty ... in the name of property also work to explain why it is permissible to limit other forms of liberty by the creation of intellectual property.³⁵

³⁵Richard Epstein, "Why Libertarians Shouldn't Be (Too) Skeptical About Intellectual Property," (February 2006) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=981779>.

By contrast, the Lockean justification for intellectual property offers a ringing defense of intellectual property as a necessary implication of self-ownership. Consider the words of the novelist/philosopher Ayn Rand, who made the Lockean case with characteristic punch: “Patents and copyrights are the legal implementation of the base of all property rights: a man’s right to the product of his mind.”³⁶

Today the most prominent scholarly defender of intellectual property on Lockean grounds is George Mason University law professor Adam Mossoff, who not so coincidentally is associated with the Ayn Rand Institute. According to Mossoff:

IP rights are fundamentally the same as all property rights in all types of assets — from personal goods to water to land to air to inventions to books. These and many other types of goods are the byproduct of an individual’s value-creating, productive labor that creates them, acquires them, transforms and uses them, and ultimately disposes of them in voluntary transactions with other people in civil society ... [T]he fruits of productive labor should be secured to their creators because this is a necessary prerequisite for a flourishing human life.³⁷

The Lockean theory starts off promisingly enough. People certainly ought to be able to make personal use of their own ideas. Authors should be able to sell books they write to publishers, and inventors should be able to build and sell their new contraptions. Who else could possibly have a better claim to do so? But you don’t need to introduce the novel concept of intellectual property to reach these conclusions: ordinary, run-of-the-mill personal freedoms and contract rights will suffice.

The bold, and highly problematic, leap comes when ownership of the products of one’s own mind is extended to assert control over what other people do with the books or contraptions they buy. And the question that arises is: Does the right to the fruit of one’s labor really compel such a leap?

³⁶Ayn Rand, *Capitalism: The Unknown Ideal*, (New York: Signet, 1986), 130.

³⁷Adam Mossoff, “Why Intellectual Property Rights? A Lockean Justification,” *Law and Liberty*, May 4, 2015, <<https://www.lawliberty.org/liberty-forum/why-intellectual-property-rights-a-lockean-justification/>>.

In a word, no. The special rights afforded by copyright and patent laws are not necessary to ensure that people enjoy the fruits of their mental labor to at least some degree, nor are they remotely sufficient to ensure that all people enjoy the full fruits of their mental labor. Moreover, copyright and patent laws in their current form actively prevent some people from enjoying any fruits of their mental labor under certain circumstances. In other words, the conclusion (copyright and patent protections are justified) does not follow from the premise (people are entitled to the fruits of their mental labor).

Not Necessary

In the absence of copyright, authors can sell their manuscripts to a publisher and thereby profit from their mental efforts; they just can't stop other publishers from selling competing editions. And in the vast majority of cases, the inability to suppress unauthorized copies is completely irrelevant, since most books don't sell enough for anyone to want to produce and sell a rival edition when an ample supply of the work already exists.

Likewise, inventors can build and sell their new and improved mousetraps without obtaining a patent; they just can't stop competitors from imitating their inventions and selling their own models. Here also, the absence of patent protection is irrelevant most of the time, as most new products are commercial flops.

So why isn't the remuneration that authors and inventors receive without copyrights and patents sufficient vindication of the principle that people should enjoy the fruits of their labors? Only in highly exceptional cases do authors and inventors hit the kind of jackpot that makes suppressing unauthorized copies a valuable prerogative. And even in those cases, the original works hit the market first — meaning the authors and inventors have the field to themselves for some period of time and then often enjoy significant first-mover advantages thereafter. In addition, there are a host of strategies for appropriating greater returns from innovation even in the face of unrestricted competition — including secrecy, bundling (with, for example, advertising or follow-up service), and capitalizing on popularity with higher-priced signed copies and paid personal appearances or performances. Software from an authorized seller can come with a valuable service contract; recorded music releases can build audiences for concert tours; even extras with only a few seconds of screen time in the original *Star Wars* movies can make thousands signing autographs.

Why, as a matter of moral principle, isn't all this enough? After all, as we have already seen, many forms of expressive and innovative activity flourish in the absence of copyright and patent protection, and in important cases innovators and artists decide it is in their interest to eschew such protection even when they can claim it.

Not Sufficient

Putting aside the objections above, let's assume for the sake of argument that extra protections are called for, that people do deserve exclusive rights to their ideas. If that is the case, why are such rights recognized and enforced so inconsistently? Because even with copyright and patent laws — indeed, even with those laws in their current, highly expansive forms — it is still the case that vast domains of useful, original mental effort receive no added protection.

Why aren't scientists allowed (for the most part) to patent their discoveries? Why couldn't fashion designers patent the bikini or cargo shorts? Why can't stand-up comedians copyright jokes? Why was there no copyright protection for the format of the sitcom or the soap opera or the miniseries? Or for the romantic comedy or the buddy film or the edgy reboot? Why aren't the inventors of Buffalo wings and Caesar salads receiving royalties? Why has there been no intellectual property protection for pioneering business innovations like the multidivisional corporate structure and just-in-time inventory control?

The usual response is that intellectual property laws don't protect ideas and knowledge per se, but only specific expressions or embodiments of ideas in the form of artistic works or inventions. For copyright, the distinction was defensible when the law dealt only with unauthorized republication. But with the expansion of copyright's scope to restrict derivative works, the law embarked on its current path of protecting ideas from being put to original, new uses. For patents, meanwhile, the distinction was never viable. Inventions just are a form of new knowledge — namely, knowledge that the specified technique succeeds in accomplishing a useful purpose. There hasn't even been a requirement for patent applicants to submit a working model of their gizmos since 1880, so there is no longer any need to demonstrate you actually have a functioning device before you can acquire the right to stand in the way of anybody else who actually does get that idea to work. And as patent protection has been extended ever more broadly to include business methods, software described in highly abstract terms, and some kinds of scientific discoveries (for example, the identification

of peptides that inhibit binding to brain receptors),³⁸ the fact that patents grant exclusive rights over abstract ideas has become obvious. The question then reasserts itself: Why are some ideas more deserving of protection than others? There just isn't a good answer to that question.

“The claim that enjoying the fruits of one’s intellectual labor entitles you to stop competitors has no inherent limiting principle, and thus the claim can be extended headlong into absurdity.”

The idea that people should be able to enjoy the fruits of their labor has clear intuitive appeal, but its invocation as a justification for stopping other people from making use of your ideas without your permission suffers a fatal difficulty: The argument proves far too much. Indeed, the problem goes beyond the widely understood “negative space” of intellectual creations that stand outside of patent and copyright protection: scientific discoveries, fashion, comedy, etc. Given that every new business venture starts with an idea, why shouldn't every first entrant in a new industry be able to claim a monopoly? Or, for that matter, why not every first entry in a geographic market? If someone has the bright idea that their hometown needs a Thai restaurant and succeeds in making a go of it, why shouldn't she be able to prevent competitors from coming in to poach her good idea — at least for a couple of decades? On the other hand, given that every new idea is in some way adapted from earlier ideas, why shouldn't those first entrants in new industries and new markets be seen as “thieves” and “pirates” who are infringing on earlier ideas? Once you really start working through the implications, the whole argument collapses in a hopeless muddle.

The problem is this: The claim that enjoying the fruits of one’s intellectual labor entitles you to stop competitors has no inherent limiting principle, and thus the claim can be extended headlong into absurdity — as indeed it frequently has been. Of course, one can impose limits on the claim, but those limits have to be based on other principles — in particular, some sense of relative costs and benefits. But now we’re doing policy analysis and the case-specific comparison

³⁸Gordon Ng et. al., “Antagonists of the Bradykinin B1 Receptor,” U.S. Patent 8,278,280, filed April 8, 2008, and issued October 2, 2012, <<https://patentimages.storage.googleapis.com/b5/47/89/3a7d5309072796/US8278280.pdf>>.

of costs and benefits, at which point the grandiose-sounding claim that patent and copyright law combat injustice shrivels and fades.

Counterproductive

Copyright and patent laws are thus unnecessary to enjoying the fruits of one's mental labor at least to some degree, and they are insufficient to ensure enjoyment of all of those fruits. Even worse, those laws can actually be counterproductive: Perversely, they can and regularly do prevent people from enjoying *any* of the fruits of their mental effort by stopping them from producing or selling their own original works.

This was not always the case with copyright: Originally U.S. law prohibited only simple copying of full works as originally published. Thus, translations and even abridgments were not considered infringing. Gradually, however, the concept of infringement was expanded to cover so-called derivative works — for example, a play based on a book, or a book that contains characters created by another author, or a song with a hook or general sound that resembles an earlier record. In these cases, authors expend mental effort to create something new and original, but they are not allowed to publish or sell it.

In the case of patent law, independent co-invention has never been a defense against infringement. As a result, inventors who come in second in a patent race have no right at all to make use of and profit from their ideas. This situation is hardly unusual: Cases of simultaneous or independent co-discovery crop up with astonishing frequency.³⁹ It is often the case that new ideas are almost literally “in the air” such that multiple researchers hit upon them at the same time. In a study of identical and substantially similar simultaneous patent claims submitted between 1998 and 2014, interfering inventors were 1.4 to 4 times more likely to live in the same geographic area compared to other inventors.⁴⁰ Meanwhile, the clear majority of patent infringement suits involve not

³⁹See William F. Ogburn and Dorothy Thomas, “Are Inventions Inevitable? A Note on Social Evolution,” *Political Science Quarterly* 37, no. 1 (March 1922) <<https://www.jstor.org/stable/2142320>>.

⁴⁰Ina Ganguli, Jeffrey Lin, and Nicholas Reynolds, “The Paper Trail of Knowledge Spillovers: Evidence from Patent Interferences,” (January 2019) <<https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2017/wp17-44r.pdf>>.

intentional copying, but independently developed products whose inventors were not aware of the existing patents.⁴¹

Thus do copyright and patent laws actually restrict some people's rights to enjoy the fruits of their mental labor. By giving extra protections to some people's ideas, the laws deny to others those basic rights to profit from mental effort that exist in the absence of patents and copyright.

In Search of Intellectual Property that Deserves the Name

There is no doubt that the term “intellectual property” is a brilliant marketing ploy. Asserting that patents and copyrights are part of the overall system of private property — a system as old as civilization and essential for a thriving modern social order (see Soviet Union, fall of) — gives supporters of expansive patent and copyright protection a formidable moral high ground. They claim to seek not special privileges or ever greater rents, but simply their rightful due. Their opponents, meanwhile, are tainted by sympathy with “thieves” and “pirates” and a socialistic hostility to private property.

But the claim that contemporary patent and copyright laws protect anyone's rightful due cannot withstand close analytical scrutiny. Neither broad argument for the unity of physical and intellectual property — whether it's that both internalize externalities or that both secure for people the fruits of their labor — can succeed in justifying patent and copyright laws in anything like their current form.

So is there anything left of the moral claim for patent and copyright protection? Stripping away all the overreaching of the current attempts at justification, there are a pair of defensible intuitions. First, it does seem unfair for someone to expend great effort to write a book or record a song or invent a new device and then see most of the revenue that their work generates go to people who do nothing but make and sell unauthorized copies. Second, there is the practical consideration that preventing this unfairness can, under certain circumstances

⁴¹Christopher A. Cotropia and Mark A. Lemley, “Copying in Patent Law,” *North Carolina Law Review* 87, no. 5 (June 2009) <<https://scholarship.law.unc.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=4384&context=ncrlr>>.

(namely, the presence of relevant externalities), improve incentives for innovation and artistic expression.

Copyright and patent laws that stuck closely to these two intuitions could claim defensibly to rest on a sound moral foundation. But it is important to recognize that such laws would look dramatically different from what we have today. In particular, the scope of exclusive rights would have to focus narrowly on specific expressive or innovative works — the ongoing drift toward property rights in disembodied ideas needs to be halted in its tracks and rolled back completely. Further, exclusive rights should never be read to deprive others of their own rights to engage in original expressive and innovative activity.

Below we will sketch out the limits on copyright and patent laws that would have to be instituted for those laws to merit the claim that they protect some species of legitimate intellectual property. Although these limits would require a substantial overhaul of contemporary laws, that fact is testament to how far the reckless expansion of copyright and patent protections has proceeded in recent decades. The massive pruning we have in mind is needed to restore the narrow, modest scope of copyright and patent laws that was in effect for most of U.S. history.

Copyright

Reduce the terms. For copyright to rest on a secure moral and practical foundation, its protections need to be firmly anchored in protecting artists and creators from unfair exploitation of their work. By this standard, current copyright terms — life of the author plus 70 years, or 95 years for anonymous, pseudonymous, or for-hire works⁴² — are completely indefensible. No legitimate purpose of copyright is served by extending monopoly privileges to publishers for generations after the original artist has died.

The original copyright terms granted by the Copyright Act of 1790 — 14 years, with an opportunity for one 14-year extension — are much more in line with the proper functioning of the law. Indeed, the economist Rufus Pollock has calculated that the optimal copyright length for incentivizing artistic works is

⁴² The 95-year term applies to the date of publication. The term goes up to 120 years following the creation of the work, whichever expires first. See 17 U.S. Code, Chapter 3.

around 15 years.⁴³ While there is no clear-cut right answer here, there is no doubt at all that copyright terms ought to be shortened dramatically.⁴⁴

Require formalities. Until 1976, formal registration and notice were required for copyright eligibility. Current law should be revised to return to this system.⁴⁵ Additionally, depending on the overall duration of copyright terms, re-registration should be required every 10 to 20 years.⁴⁶

Here again, the justification for copyright is to allow artists to earn income from their creative works without interference from unauthorized copying. The law, therefore, should be designed to help only those artists who want the help and take minimal steps to secure it. There is no justification whatsoever for blanketing every written utterance with monopoly protections. To single out one absurdity that touches all of us, every time you forward a colleague's email you are engaged in unauthorized copying of copyrighted material and thus committing infringement punishable by up to \$150,000 per count.⁴⁷ More broadly, current arrangements lead to vast accumulations of "orphan works," tying up large portions of our cultural patrimony with needless restrictions that benefit no one — because no one even knows who the supposed beneficiaries are. The post-1976 explosion in "accidental copyright" was a bad mistake and should be reversed.

Limit infringement to commercial exploitation. The fundamental intuition that grounds a persuasive moral case for copyright is that it is unfair for someone to profit from artistic works if that person had nothing to do with creating the works or making them known to the public. Most artistic works generate little or nothing in the way of commercial returns, but for those exceptional ones that

⁴³Rufus Pollock, "Forever Minus a Day? Calculating Optimal Copyright Term," (July 2009) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1436186>.

⁴⁴ See K. E. Himma, "Justifying Intellectual Property Protection: Why the Interests of Content-Creators Usually Win Out Everyone Else's," (2006) (recognizing a moral justification for intellectual property protection for authors but criticizing long copyright terms and lack of formalities as inconsistent with that justification).

⁴⁵ To those who believe that this system would be burdensome to those who produce creative works, consider the example of the 1968 classic *Night of the Living Dead*. Due to a clerical error, the work did not contain the necessary copyright declaration. (Declaration requirements were removed in 1976.) The movie is still considered a critical and commercial success, and, because the "Romero Zombie" was not copyrighted, it inspired a flourishing new horror genre. For more see Jonathan Bailey, "How a Copyright Mistake Created the Modern Zombie," *Plagiarism Today*, October 10, 2011, <<https://www.plagiarismtoday.com/2011/10/10/how-a-copyright-mistake-created-the-modern-zombie/>>.

⁴⁶ In *Fourth Estate Public Benefit Corp. v. Wall-Street.com*, 139 S. Ct. 881 (2019), the Supreme Court clarified that a party may not sue for infringement until a work has been registered by the Copyright Office. While this is a positive development, we argue that if a work is not formally registered, it should be ineligible for any copyright protection at all.

⁴⁷ See John Tehranian, "Infringement Nation: Copyright Reform and the Law/Norm Gap," *Utah Law Review* (2007) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1029151>.

do, the money should go to the artist and her agents, not parasitical publishers that free-ride off the work of others. It is therefore permissible to block copying by those who would, in the words of John Locke, “benefit [from] another’s pains, which [they] have no right to do.”⁴⁸

Fidelity to that underlying intuition requires that the enforcement of copyright protections be limited to unauthorized copying for commercial gain. In the physical world, that limitation is observed in the form of copyright’s “first-sale doctrine”: After a copyrighted work is sold, the purchaser may resell or lend it as he wishes (this is the legal rule that makes used bookstores and public libraries possible). In the digital world, the corresponding reform would be to allow online sharing of copyrighted material by consumers.

Admittedly, such a rule would have a bigger impact on artists and publishers than the first-sale rule, since online sharing is potentially limitless. But the sad and futile spectacle of the Recording Industry Association of America’s attempts to stop online file-sharing by randomly suing individual consumers convinces us that this is a bullet in need of biting.⁴⁹ Copyright enforcement should be limited to protecting artists and their agents from commercial rivals; it should not allow them to attack their own customers.

Narrow “derivative works,” expand “fair use.” No intellectual property regime worthy of the name should prevent people from making use of what is unquestionably their own intellectual property — namely, their own ideas. Accordingly, any extension of monopoly protection that impinges on this core right is unjustifiable and should be repealed. In the case of copyright, this means a dramatic narrowing of copyright restrictions on so-called derivative works.

The original U.S. copyright law protected authors from exploitative imitation in very narrowly tailored fashion. Infringement was held to occur only in cases of outright reproduction: Anything merely adapted from copyrighted source material, even translations and bona fide abridgments, fell outside the strictures of the law.

It is possible to relax this constraint, to allow restriction of some derivative works, without proscribing truly original new artistic creations that borrow in

⁴⁸John Locke, *Second Treatise of Government*, (Indianapolis: Hackett, 1980).

⁴⁹David Silverman, “Why The Recording Industry Really Stopped Suing Its Customers,” *Harvard Business Review*, December 22, 2008, <<https://hbr.org/2008/12/why-the-riaa-stopped-suing>>.

some way from earlier works. Thus, exclusive rights over translations and abridgments, as well as adaptations of books for stage or screen, are unobjectionable.

But to end copyright's current hostility to true artistic freedom, the definition of derivative works should be narrowed considerably. Using borrowed characters or settings in new original books or films should not be considered infringement; neither should sampling or reuse of musical hooks.

“No intellectual property regime worthy of the name should prevent people from making use of what is unquestionably their own intellectual property—namely, their own ideas.”

Another way to express the same idea is to argue for expanding significantly the scope of “fair use”⁵⁰ — the doctrine in copyright law that allows limited borrowing of copyrighted material without the originator's permission.⁵¹ Fair use is typically seen as carving out exceptions to copyright protection, but those exceptions were necessary only because copyright's protections have been extended so far and derivative works defined so broadly. For intellectual clarity, it is better to limit the scope of copyright protection explicitly rather than simply expand the exceptions.

We recognize that narrowing copyright to expand artistic freedom will strike some readers as a radical break with longstanding practice. We will note, then, that many of copyright law's intrusions on artistic freedom to which we object would be eliminated simply by shortening the length of copyright terms. The stakes of defining derivative works, or adjusting the contours of fair use, are lowered dramatically when copyrighted material passes relatively quickly into

⁵⁰ See 17 U.S. Code § 107. Under current law, whether or not something is fair use depends on a four-factor test that considers the purpose of the work (e.g., educational or nonprofit versus commercial use); the nature of the original work; how much of the original work has been used; and the effect of the use on the market value of the work.

⁵¹ See Benjamin G. Damstedt, “Limiting Locke: A Natural Rights Justification for the Fair Use Doctrine,” *Yale Law Journal* 112, no. 5 (March 2003) <<https://www.yalelawjournal.org/note/limiting-locke-a-natural-law-justification-for-the-fair-use-doctrine>> (arguing that the Lockean justification for intellectual property protection requires broad exemptions for fair use to avoid waste); see also Gordon Hull, “Clearing the Rubbish: Locke, the Waste Proviso, and the Moral Justification of Intellectual Property,” *Public Affairs Quarterly* 23, no. 1 (January 2009).

the public domain — from which literary or musical elements can then be borrowed and recombined freely without any legal constraints on the artist’s imagination.

End interference with ownership rights. The anti-circumvention provisions of the Digital Millennium Copyright Act (DMCA) make it illegal to hack or break “digital rights management” (DRM) locks that producers install to protect copyrighted material. DRM is why you can’t copy a DVD in the same way you rip a CD; DMCA makes hacking the encryption software on the DVD a federal crime. And it is a crime even if you only wanted to access the copyrighted material for noninfringing, “fair use” purposes. Meanwhile, the intersection of DRM and DMCA has blocked owners of physical goods with embedded software — cars, for example, or farm equipment — from repairing or tinkering with their own possessions or taking them to independent repair shops.

All of this represents a sharp and misguided departure from the first-sale rule of traditional copyright law. And while reforms to uphold the “right of repair” have been making heartening progress, the whole legal edifice of digital anti-circumvention should be scrapped. Producers should be able to install whatever locks they want, but it should not be illegal for consumers to pick those locks on items they purchase. “If you buy it, you own it” is a sound principle in both the physical and digital realms, and copyright law’s treatment of customers as the enemy needs to end.

Patents

Eliminate patents for software and business methods. One crucial requirement for any workable system of property rights is the ability to define boundaries. The expansion of patent law in recent decades to include software and business methods runs afoul of this requirement. These patents currently make up a substantial fraction of all patents granted, and instead of serving to encourage innovation they have created a legal minefield that innovators now have to cross.

Determining the scope of patents is most straightforward in the case of pharmaceutical and chemical patents, where the boundaries are delineated precisely by chemical formulas. By contrast, the scope of software and business-method patents can generally be described only by abstract and often vague language. When that vagueness is combined with the staggering volume of

relevant patents now in force, software developers are flatly incapable of assessing how vulnerable their work is to infringement claims.⁵²

The result is a system that encourages litigation, not innovation. Patent lawsuits have exploded in recent decades, led by the rise of “patent trolls” whose business consists of buying up patents so they can monetize them with infringement suits. Recall that the direct costs of patent troll litigation in lawyers’ and licensing fees come to some \$29 billion annually — a figure that is more than 10 percent of total R&D spending by all U.S. businesses. And software patents are a major source of patent troll revenues.

The extension of patent protection to the hard-to-define subject matter of software and business methods was a mistake and should be rolled back. A workable system of intellectual property for inventions should be confined to physical inventions that can be described with reasonable specificity. Software and business method patents fail to meet that test.

Tighten eligibility requirements for patents generally. The number of patents awarded annually in the United States has nearly quintupled in recent decades: from 66,170 in 1980 to 325,979 in 2015.⁵³ This explosive growth reflects not only the extension of patent protection into novel areas like software and business methods, but also an across-the-board loosening of requirements for eligibility. The lowering of standards and consequent reduction in patent quality fails to reward genuine innovation and instead creates legal snares for genuine innovators.

The U.S. patent statute specifies that patentable inventions must be novel, nonobvious, and useful.⁵⁴ The interpretation of this standard, however, has been stretched in recent years to the point of frequent absurdity. The Electronic Frontier Foundation has a running “stupid patent of the month” series just to document especially egregious examples.⁵⁵

⁵² See Christina Mulligan and Timothy B. Lee, “Scaling the Patent System,” (2012) <https://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1911&context=fac_artchop> (finding that it would take two million patent lawyers working full time to check every software firm’s new products against all the new software patents issued in a given year).

⁵³ “U.S. Patent Statistics Chart, Calendar Years 1963–2015,” U.S. Patent and Trademark Office, <https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm>, accessed June 25, 2019.

⁵⁴ See 25 U.S. Code § 101-103.

⁵⁵ “Stupid Patent of the Month,” Electronic Frontier Foundation, <<https://www.eff.org/issues/stupid-patent-month>>.

Homing in on the standard for usefulness, this requirement should ensure at a bare minimum that the invention in question actually works. But consider the notorious case of Theranos, which held hundreds of patents on a medical testing device that did not and could not accomplish what it was billed to do.⁵⁶ The requirement of a functional prototype, which was eliminated back in 1880, should be reinstated.

No infringement in the case of independent invention. To resituate patent law on a secure moral foundation, it is imperative that the law does not interfere with people's free use of their own ideas. Accordingly, patent law needs to be changed so that, as in copyright law, only conscious copying constitutes infringement. Independent co-invention is commonplace in technological innovation, and the law's hostility to that fact needs to end. Reform can be accomplished either by granting patent rights to later co-inventors or by making independent co-invention an affirmative defense to infringement.⁵⁷

Conclusion

Defenders of strong and expansive copyright and patent laws have claimed and successfully held the moral high ground by branding those laws as “intellectual property” and asserting their deep continuity with the larger institution of private property. In our view, the patent and copyright lobbies' possession of the moral high ground is undeserved. As applied to the laws in question in their contemporary form, the term “intellectual property” is a misnomer.

In the U.S. political debate, there are two main lines of argument in favor of patents and copyrights as intellectual property: one based on consequences, the other based on desert and fairness. The former claims that, like private property generally, patents and copyrights internalize important externalities and therefore encourage the efficient allocation of resources. As we have shown, however, many of the externalities affected by patent and copyright law are not relevant to efficient resource allocation; accordingly, these laws regularly create inefficient rents instead of correcting misallocations. The latter line of argument

⁵⁶Daniel Nazer, “Theranos: How a broken patent system sustained its decade-long deception,” *Ars Technica*, March 4, 2019, <<https://arstechnica.com/tech-policy/2019/03/theranos-how-a-broken-patent-system-sustained-its-decade-long-deception/>>.

⁵⁷ See Lawrence C. Becker, “Deserving to Own Intellectual Property,” *Chicago-Kent Law Review* 68, no. 2 (April 1993) (arguing that justifications for intellectual property protection on the basis of moral desert must recognize the rights of independent co-inventors); see also Robert Nozick, *Anarchy, State, and Utopia*, (New York: Basic Books 1974), 182 (patent rights should be extended to independent co-inventors).

claims that patent and copyright laws are needed to ensure that creators and inventors enjoy the fruits of their intellectual labors. In fact, however, these laws are not necessary to securing the fruits of intellectual labor to at least some extent, they are not remotely sufficient to securing the full fruits of such labor, and with distressing frequency they actively interfere with some people's right to enjoy any fruits of their labor at all.

“The patent and copyright lobbies’ possession of the moral high ground is undeserved. The term intellectual property is a misnomer.”

Does this mean that the concept of “intellectual property” is completely invalid? Not necessarily. Working back from all the overreaching, there is a defensible intuition that some level of copyright and patent protection is needed to protect artists and inventors from unfair commercial exploitation of their work by parasitical imitators who add no real value of their own. And by preventing unfair exploitation, such protection would improve incentives for creation and innovation and thus promote efficiency.

Patent and copyright laws that rested on this moral foundation would look very different from the contemporary versions. As we have sketched out, laws with a legitimate claim to protect “intellectual property” would be far narrower and more modest than what we have today. As to today's laws, “intellectual monopoly” — with the connotations of undeserved privilege and excess returns that accompany this turn of phrase — is a much more apt description.

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