

THE MERITS OF OWNERSHIP; OR, HOW I LEARNED TO STOP
WORRYING AND LOVE INTELLECTUAL PROPERTY
REVIEW ESSAY OF LAWRENCE LESSIG, *THE FUTURE OF IDEAS*,
AND SIVA VAIDHYANATHAN, *COPYRIGHTS AND COPYWRONGS*

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I. INTRODUCTION

Martin Luther posted his *Ninety-Five Theses* as a challenge to the corruptions of the Roman Catholic Church, particularly the practice of selling indulgences. The greatest offender within the Catholic hierarchy was Father Tetzel, who sold the privileges and guarantees of eternal salvation to the highest bidder. For Martin Luther, the sale of salvation represented the worst corruption of the Church — the acquisition of the benefits of salvation without the devotion, drive, and faith demanded by religion.

Our modern, secular, market-based society has its own form of indulgences: intellectual property. According to many legal scholars, individuals can obtain the benefits of creativity without being particularly creative. The status of author or inventor can be obtained without the combination of inspiration and perspiration that is the hallmark of the creative spirit. Just as the granting of indulgences by the Church stifled true piety, so the granting of intellectual property rights by Congress hinders and corrupts invention and discovery, the lifeblood of market economies.

In two recent books, Lawrence Lessig and Siva Vaidhyanathan¹ come across as modern day Martin Luthers for intellectual property. They may not be motivated by religious devotion or by anti-authoritarianism, but they are equally vocal in their criticism of the corruptions of a system that impedes creativity in the name of promoting it. Both authors demonstrate the expansions of intellectual property and the threatening consequences thereof. Both offer solutions to these problems, much fewer than ninety-five theses. The two books signal a reformation (definitely small “r”) of how we think of intellectual property, government largesse, and market processes.

One question that many lay readers have is, “Why so much focus on intellectual property now?” The field is hot, so to speak, and often eclipses other more compelling issues in the media and legal fora. Intellectual property issues are ubiquitous precisely because intellectual property is the final frontier. Market economies expand and thrive by conquest, and our world has expanded as much as it can geographically. Real property, or land-based systems, offer very few prospects for further exploitation. Personal property similarly offers few remaining challenges for entrepreneurial enterprise. What else is there but our ideas, our expressions, our imaginations, our dreams? Recognize also that the United States’s economy has evolved from primarily agricultural to manufacturing-oriented to service-centered. It

1. LAWRENCE LESSIG, *THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD* (2001); SIVA VAIDHYANATHAN, *COPYRIGHTS AND COPYWRONGS: THE RISE OF INTELLECTUAL PROPERTY AND HOW IT THREATENS CREATIVITY* (2001).

is not hard to fathom the importance of intellectual property in commodifying the intangible inputs and outputs of an economy based on the selling of services, whether medical, legal, financial, or entertainment.² Professor Vaidhyathan subtly points to these changes in his book as he explores the evolution of copyright law through American culture from Thomas Jefferson to Henry Clay to Mark Twain to Napster.

Lawrence Lessig's work has been concerned largely with the conundrum of discovering how much law and government is necessary to facilitate the creation of markets. He is associated with the new institutional school of law and economics that deals with how property rights and other legal systems arise from individual planning and serve to facilitate the creation of markets.³ His first book, *Code and Other Laws of Cyberspace*,⁴ demonstrated elegantly how private action, particularly through the architecture of hardware and software, can act as a form of regulation, producing the same ills that conservative law-and-economics thinkers see in government regulation. *The Future of Ideas* continues these themes by pointing out that private market systems provide their own systems of control that can choke the very freedoms that make markets desirable.

Enter intellectual property into this tension. Copyrights and patents are property; their owners have freedom to make use of their property as they see fit. But copyrights and patents are grants from the states, exclusive grants that privilege owners over non-owners. Lessig's and Vaidhyathan's lessons are simple: too much exclusivity hinders freedom. Put another way, too much privatization can be as problematic as state control and ownership. The challenge both authors face is determining how much is too much, and although both authors, particularly Lessig, offer a fruitful set of ideas for reform, there are some basic questions left unaddressed.

Those familiar with movies will recognize the reference to Stanley Kubrick's *Dr. Strangelove* in the title of this Article.⁵ The reference is not meant to be whimsical. Kubrick's movie was about the dark logic of the Cold War and mutually-assured destruction. The

2. See, e.g., Paul A. David, "The Evolution of Intellectual Property Institutions," in International Economic Association and A. B Atkinson, *Economics in a Changing World*, vol. 1. (A. Aganbegyan, O. Bogomolov and M. Kaser (eds.)) 126-149, 127-128 (1993)(analyzing economic changes leading to importance of intellectual property); Christopher Arup, *The New World Trade Organization Agreements: Globalizing Law Through Services and Intellectual Property* 40-92 (2000) (discussing history of WTO),

3. See, e.g., Lawrence Lessig, *The New Chicago School*, 27 J. LEGAL STUD. 661, 662 (1998) (describing a "new Chicago School" of law and economics that studies the role of social norms and the benefits of government intervention in the marketplace).

4. LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* (1999).

5. For those who don't, here's a footnote. DR. STRANGELOVE; OR HOW I LEARNED TO STOP WORRYING AND LOVE THE BOMB (Columbia Pictures 1964).

love felt for the bomb was an ironic one and a not-so-subtle comment on the male drive for control and domination, at all cost. No one seriously thinks of intellectual property in the same terms as "The Bomb," but thinking solely in terms of intellectual property as private property can lead to the same perversities of logic and tunnel vision illustrated in Kubrick's classic. Take for example the words of Kevin Rivette and David Kline, two intellectual property consultants, who conclude their book *Rembrandts in the Attic* with the line: "For in a world where knowledge really is power, patents will be the 'smart' bombs of tomorrow's business wars."⁶ The battle now is not between the market and the state, but between various groups who want to control the market with intellectual property law as the primary weapon in battle.

Lessig and Vaidhyanathan each offer fruitful exposés of this mentality and the dangerous logic of privatization. As both point out, there is too much intellectual property and too much control accorded to intellectual property owners. The business battles to which Rivette and Kline allude result in a mutually-assured destruction as private control undermines the freedom necessary for a functioning marketplace. Alternative distribution mechanisms like Napster are stifled under copyright. Peer-to-peer systems are equally threatened. Parodists and other creative individuals are squashed by copyright owners of established works, whether *Gone with the Wind* or *Lolita*. Both Lessig and Vaidhyanathan provide useful answers: limit control, narrow intellectual property protection, liberate users. They offer an invaluable opening salvo in the debate.

I claim in this Article that we need to consider the distributive justice issues raised by intellectual property.⁷ It is overly simplistic to say that the answer to too much control is to lessen the amount of control. The question is how *much* control should the intellectual property owner, whether owner of copyright or patent, have. Even Lessig and Vaidhyanathan recognize that intellectual property creators are entitled to some return, but how much is enough? Is the author of a novel entitled not only to the royalties from the book, but to all film rights

6. KEVIN G. RIVETTE & DAVID KLINE, *REMBRANDTS IN THE ATTIC: UNLOCKING THE HIDDEN VALUE OF PATENTS* 200 (2000).

7. My meaning of "distributive justice" here is best conveyed by John E. Roemer's statement that the theory of distributive justice is one of "how a society or group should allocate its scarce resources or product among individuals with competing needs or claims." JOHN E. ROEMER, *THEORIES OF DISTRIBUTIVE JUSTICE* 1 (1996). The operative words here are "how," "should," "scarce," and "competing needs or claims." The "how" reduces the question to process terms. The "should" lays the foundation for a normative discussion as well as a positive one. Finally, "scarce" and "competing needs or claims" places the discussion in an economic and market context. Roemer's use of the words "needs or claims" is also telling. The question is not simply of wants or desires, but about necessities. "Claims" introduces the question of property into the discussion.

and merchandising rights that can be squeezed out of the characters, plot, and themes of the novel?

Part II of this essay summarizes the principal arguments in Lessig's and Vaidhyanathan's books. I show that both offer cogent arguments demonstrating the expansive control permitted by intellectual property law. While Vaidhyanathan's focus is on copyright, Lessig shows how patent and copyright have worked in tandem to stifle creativity. Both offer solutions, although Lessig, given his background as a lawyer, develops a more extensive agenda for reform. In effect, both push for loosening the control that is attendant to intellectual property ownership. In Part III, I suggest that loosening control is only part of the solution. Addressing each aspect of Lessig's reform proposals, I demonstrate that in some instances more extensive intellectual property control may be a good thing, if intellectual property ownership is in the right hands. My conclusion is that current intellectual property laws protect certain interests over others, specifically the interests of corporate owners over users and creators. Intellectual property reform should address this inequity in conjunction with the specific reforms pushed by Lessig. Part IV concludes by affirming my love for intellectual property, in much the same way Kubrick urges us to love the bomb.

II. WHAT LARRY AND SIVA UNDERSTAND

Lessig ends his book with a chapter entitled "What Orrin Understands,"⁸ referring to Orrin Hatch, a Republican senator from Utah and a vocal advocate for pro-competition policy and anti-strong intellectual property sentiment. What Orrin understands is that private actors can have as devastating a stranglehold on competitive processes as government bureaucrats, especially when private actors are armed with intellectual property law. Larry and Siva understand this point as well, and in their respective books each author constructs an argument in support of minimizing the control that can be exercised by intellectual property holders. Lessig is informed by legal analysis; Vaidhyanathan by historical and cultural analysis. But their prognoses are the same: progress, creativity, competition, innovation are all being hindered by intellectual property law.

The two authors differ in explaining how intellectual property has reached its current state. Lessig tells a story based on bottlenecks: traditional entities fearful of change are stifling the new through use of intellectual property law. Vaidhyanathan tells a similar story but his explanation is more historical: a developing nation that started out as an intellectual property pirate has matured into a staunch and ardent

8. Lessig, *supra* note 1, at 262–68.

defender of its rights. Lessig's story is exemplified by AT&T and the battle over telecommunications media; Vaidhyanathan's by Mark Twain, who was weaned on pirated copies of Charles Dickens' novels but grew up to a lobbyist for extended copyright terms. I do not intend the discussion to be a thorough summary of the two books — people will read these books regardless of my recommendation — but it is important to distill and compare the two arguments in order to assess the policy recommendations.

A. Layers and Bottlenecks in Communications Media

The subtitle of Lessig's book is "The Fate of the Commons in a Connected World." A connected world is one where individuals are networked; it stands in contrast with an atomistic, individualistic world of libertarian politics or neoclassical economics. Complementing the connected world is the commons, a shared resource that according to Lessig is being depleted by the expansion of intellectual property rights.

It is important to point out that advocates of strong intellectual property rights also see the world as connected, but the ties that bind are market relations and negotiated contracts. Connection comes at a cost: nothing is for free, nothing is to be shared. In such a world, a commons is irrelevant and perhaps harmful to the establishment of connections built on market-based transactions. Individuals are free to choose but not free to take. The exercise of choice comes at some expense. Lessig illustrates the dual meaning of "free" in market rhetoric. An individual is free in the sense that he is not coerced, but freedom also has a positive dimension, the right to undertake an activity without the permission of another.⁹ It is this definition of freedom that is being threatened by free markets. If everything in a connected world, if all the connections we make with other humans are connections that we must pay for, then a greater freedom is sacrificed and eventually lost.

Lessig is neither a utopian nor a libertarian. The freedom he is concerned with is very precisely delineated and captured in the distinction between "free speech" and "free beer."¹⁰ Markets are important in the connected world. There is no such thing as a free lunch or a free beer to go with it. But payment required for beer should not imply that payment is required to speak. Individuals connect in ways other than through markets. Sometimes these connections complement markets. Conversations occur outside a market transaction and create connections. Conversations also complement market transac-

9. *Id.* at 12.

10. *Id.* at 12–13.

tions, as anyone who has haggled would recognize.¹¹ As Lessig puts it, “The issue for us will not be which system of exclusive control — the government or the market — should control a given resource. . . but, for any given resource, whether that resource should be *controlled* or *free*.”¹² The domain of free resources is what Lessig means by the commons, and it is the commons that Lessig strives to protect.

A jacket blurb for Lessig’s book describes it as “the Silent Spring of ideas.” The reference to environmental law is apt here: Lessig is a conservationist. He wants to preserve the intellectual commons, the domain of shared ideas, against the encroachment of largely corporate interests that seeks to turn all connections into market ones. The reference to environmental law is equally apt in terms of the legal policies Lessig seeks to endorse. In the United States, environmental law evolved from centralized command and control regulation to market based systems to a mixed system, using markets, certificates, and sanctions. The regulation of the commons similarly will involve a mix of solutions, including markets, Lessig acknowledges. State control cannot be the sole answer especially where ideas are concerned. State management of ideas would run up against the restrictions of the First Amendment and our political commitment to democracy and participation. A pure market management of ideas is also undesirable for it will allow only those willing and able to pay to speak. The commons is to be conserved through a mix of markets and state intervention.

One example of a commons is what is referred to in copyright and patent laws as the public domain.¹³ An overused, yet never fully-defined term, “public domain” refers to those aspects of intellectual property that are not made proprietary through copyright and patent laws. A writing or invention enters into the public domain in one of two ways: (1) the work was once proprietary but its term of protection under copyright or patent has lapsed; or (2) the work could never be made proprietary because it is not the proper subject matter of copyright or patent. The latter category is the more interesting. It covers subject matter such as abstract ideas, fundamental concepts, or other items that are essential building blocks that everyone must have access to in order to create. However, once a writing or invention falls into the public domain, anyone can use it for free, in the sense that

11. See C. EDWIN BAKER, *MEDIA, MARKETS, AND DEMOCRACY* 66–67 (2002) (discussing intellectual property and the importance of both commoditized and non-commoditized relationships).

12. *Id.* at 12.

13. Lessig provides other examples of commons, including: Speaker’s Corner in London’s Hyde Park, Madison Square Garden, the telephone system, and cable television. See *id.* at 24. Professor Elinor Ostrom has presented what is currently the most comprehensive analysis of the commons. See ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* 232–28 (1990) (laying out the dimensions of “common property resources”).

Lessig uses the word: no one can be excluded and no one can exclude. The paradox is that if everything were in the public domain, then the public domain would be a null set. If everything were free, then no one would have the incentive to create or publicize writings or inventions. To establish such incentives, the law through copyright and patent grants creators protection to their writing and inventions. The duration of protection is time-limited and the scope is subject matter-limited in order to ensure the existence of the public domain.

The public domain, however, is only one commons.¹⁴ A connected world potentially consists of many others. Lessig borrows from the work of communications theorist and law professor Yochai Benkler to point out that a connected world consists of three layers. Intellectual property regulates the uppermost layer, the content layer.¹⁵ This layer is the domain of cultural content, novels, movies, inventions, processes, machines, etc. The content layer is built on two other layers: the physical layer and the logical, or code, layer. The physical layer includes the tangible infrastructure that supports the content and logical layers. The logical layer encompasses the formal law, informal norms, technical standards, and organization structures that govern the management of the content layer and the physical layer. To take an analogy from the theater: the physical layer is the stage, the content layer is the performance, and the logical layer includes the script, the norms of directors and actors, and the set of formal rules (zoning codes, state law).

Just as the content layer can be structured as a commons, so can the physical layer and the logical layer. Lessig's concern is with communications technology and particularly the Internet. The physical layer for communications includes the hardware that makes networking possible: the cables, the wires, the phones, the computers.¹⁶ Aspects of the physical layer are proprietary; computers and phones are treated as personal property. But the wires and cables themselves are increasingly being structured as a commons. When the phone industry was originally created, it was established as a natural monopoly. Ownership of the infrastructure was proprietary. But over time the monopoly was fragmented, and the ownership of the infrastructure evolved into a commons. The first step occurred with opening up the phone lines to long distance competitors, such as MCI. The current battles are over open access to cable and internet access. The tele-

14. As Elinor Ostrom demonstrates, the commons can be structured in many ways based upon legal entitlements and governance rules. See Ostrom, *supra* note 13, at 29–57 (describing the issues of monitoring and governance raised by the commons and the various ways in which the issues can be addressed institutionally).

15. Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access*, 52 FED. COMM. L. J. 561, 562–63 (2000).

16. Lessig, *supra* note 1, at 26–48.

phone industry is only one part of the story of the evolving commons. Broadcast television, radio, and cable are the others. Television broadcast was originally structured as a triopoly consisting of three networks and several local stations and affiliates all of which gave away content for free and financed themselves through advertising. Cable introduced a proprietary model, and the battles between cable and broadcast is moving towards a commons in certain content (news, weather) and in the physical layer (cable). In the case of radio, the allocation of the spectrum by administrative decision making has moved towards a mixed proprietary-shared model where frequencies are auctioned off for limited times. The point is that the structure of the physical layer has changed over time, and Lessig describes an emerging commons over telecommunications infrastructure.

The most interesting layer is the logical, or code, layer because it covers such a wide range.¹⁷ Here, Lessig picks up many of his arguments from his previous book on code. His focus is on software, the primary private mechanism by which relationships are governed on the Internet and in the emerging telecommunications world where telephone, television, radio, and computers all intersect. He who controls the Code controls the network and the convergent media. Code has developed on the proprietary model, aided and abetted by copyright and patent laws that create intellectual property rights in computer programs. Like many commentators, Lessig bemoans the proprietary nature of code and advocates the development of open source software, a commons for the creation of code. "Open source" refers to a system whereby ownership and control over the code is spread over all individuals to contribute to the development and implementation of the code. As Lessig points out, open source is rooted in copyright law but is also copyright law's ignored stepchild. Under open source, as with copyright, ownership of the code vests in the individual who first authors it, that is fixes the code in a tangible medium of expression — but the family resemblance ends there. The owner of open source grants to the world a General Public License ("GPL") whereby anyone is free to tinker with the code, modify it for his or her own convenience, and use the code and its modifications under the requirements that all improvements be similarly dedicated to the public and that no commercial use is made of the code or the improvements. Such free-ranging use of the code — an "intellectual commons," so to speak — supports innovation and development of the logical layer as code can be modified and developed to suit the evolving needs of the citizens of the intellectual commons.

17. Lessig makes it clear that this layer consists of three parts: the code layer, the knowledge layer, and the commons of innovation. Each part builds on the previous: knowledge is created by open access to code and innovation is sparked by open access to knowledge and to code. *Id.* at 49.

The division of networked society into the physical, logical, and content layers is a helpful analytical device but can disguise the connections across layers. One relevant connection is between the content layer and the logical layer. Strong copyright protection for content would translate into strong protection for the logical layer, particularly when the logical layer consists of software. This connection is important to recognize for the purposes of copyright reform. If copyright protection were relaxed in order to facilitate the use of open source for the logical layer, there would be implications for the production and distribution of content. Legal reform to restore and facilitate the commons should be fashioned to take advantage of these relationships.

Another important connection is between the logical layer and the physical layer. Lessig demonstrates that the model originally chosen for the Internet was what would be described as a peer-to-peer relationship.¹⁸ The physical server acted as a dummy intermediary that connected two computers that communicated with each other. This decision was a conscious choice to facilitate the flow of communication and foster innovation. Open source is also facilitated by the peer-to-peer nature of Internet communication. In fact, what makes the Internet revolutionary is the way it permits disintermediation of the physical layer, which in turn permits one-to-one communication in the structure of the logical layer. However, this interaction between the logical and the physical layers illustrates the necessity for a commons at the level of the physical layer. If Internet communication is now dominated by some intermediary — a dominant ISP, for example, or a company that dominates communications media such as e-mail — then the advantages of peer-to-peer are lost. The loss of the commons in the physical layer would directly affect the benefits of open source in the creation of the logical layer.

One example of this is provided by the legal battle over file-sharing, beginning with the suit against Napster¹⁹ and continuing with the suits against Morpheus and Scour. The file sharing systems permitted peer-to-peer communication at the logical layer by laying a basic foundation that exploited the ability of the Internet to disintermediate. Once Napster (and perhaps other sites) is shut down and deals are struck with members of the Recording Industry Association of America (“RIAA”), strong and dominant intermediaries have come back into play to control both the physical layer and the logical layer. Once file sharing is completely transformed into a “pay per” service, then control over the content layer will also be established.

Lessig’s description of the ideal networked society lends itself to many prescriptions for reform at all three layers — physical, logical,

18. *See id.* at 34–40.

19. *A&M Records Inc. v. Napster, Inc.*, 239 F. 3d 1004 (9th Cir. 2001).

and content — of our networked society. Protecting the commons of the physical layer requires limiting the anti-competitive tactics of large corporations such as AT&T and AOL Time Warner, each of which, if not properly constrained, could create bottlenecks in critical communication infrastructure. The commons of the physical layer can also be protected through the auctioning of the spectrum for time-limited licenses as opposed to government grants.²⁰ The commons of the logical layer can similarly be protected through a combination of corporate regulation and change in allocative rules.²¹ Needless to say, reining in the anti-competitive threat of Microsoft is one part of the solution, although Lessig would support conduct-based remedies as opposed to structural remedies such as corporate breakup. More intriguing (and radical) is his proposal that source code for operating systems be revealed after a few years so that all users will have knowledge of the code of systems such as Windows. Lessig's proposals at the logical layer are leaning towards the promotion of open source.

His reforms for the content layer also would support open source, particularly those that would limit intellectual property rights.²² This agenda is the most detailed and can be summarized as follows. For copyright, Lessig proposes (1) the replacement of the current term of life plus seventy years with a term of fifteen separate and renewable five-year terms, (2) applying copyright protection only to published works, (3) limiting copyright protection on software to two renewable five-year terms with protection being conditioned upon revealing the source code at the end of the term, (4) permitting the creation of new technology and distribution mechanisms that infringe on copyright upon the showing by the creator of the new technology or mechanism that the copyright owner is not harmed, (5) creating compulsory licensing regimes for the distribution of music, (6) creating a conservancy to which companies must donate orphaned software so that others can work on development, (7) limiting the use of contract and licensing terms to create strong property rights, as currently possible through UCITA, (8) creating fair use exceptions to the anti-circumvention provisions of the Digital Millennium Copyright Act, and (9) limiting copyright infringement claims to those brought against infringers who commercially exploit the copyrighted work. Lessig's proposals for patent are less extensive, but not less modest: (1) a moratorium in the granting of dubious patents until Congress has done a thorough study on the benefits and harms of business method and software patents, (2) replacing large damage awards for patent infringement with reasonable royalties and compulsory licensing, and

20. *See id.* at 240–46.

21. *See id.* at 246–48.

22. *See id.* at 249–61.

(3) requiring a more extensive prior art search by the patent applicant in combination with limited terms for certain categories of patents, such as business method patents. These reforms, according to Lessig, would assure a richer and fuller public domain, and the basis for the development of a commons at the content layer.

Lessig's goal is to restore freedom of a certain sort in the network society. The freedom Lessig envisions is concomitant to the restoration and preservation of a set of commons, one over infrastructure, one over regulation, and one over expression. He sees many of these issues as stemming from battles over the control of transactions on the Internet and the reaction to disintermediation. His concern is with the future, and the future for Lessig is the Internet. As Professor Vaidhyathan points out, however, in his complementary book, many of Lessig's concerns are rooted in a much deeper past in American history. Recognizing that past is critical in understanding the efficacy of Lessig's varied and radical proposals for reform.

*B. From Pirate to Policeman: The Development of
Copyright Law in the United States*

According to Vaidhyathan, the history of copyright in the twentieth century is a history of error. It is a history of control and domination, as major players, both corporate and non-corporate, lobbied to increase their control over an asset that became more critical with the unfolding of the United States economy, information and knowledge. This expansion may have had its benefits, but now serves only to stifle creativity and innovation. Vaidhyathan's remedy is simple to state: mend copyright, don't end it. And mend it by making it leaner and less strong. Vaidhyathan advocates reform towards thin copyright protection. The details of reform are missing, but the story he tells is meatier and more compelling.

My favorite part of Vaidhyathan's history is his chapter on Mark Twain, the celebrated American satirist whose views "parallel the disturbing trends in American copyright policy in the twentieth century."²³ Vaidhyathan begins his chapter with a recounting of Twain's testimony before a joint Senate and House Committee to discuss copyright reform in 1906. Twain's testimony was background to the Congressional debates over copyright reform, which eventually culminated in the passage of the Copyright Act of 1909.²⁴ Twain was advocating for expanding copyright term to life of the author plus fifty years to follow the standard that had been adopted in England in the nineteenth century. Twain's efforts failed; the 1909 Copyright Act permitted two successive twenty-eight year terms. Twain's sugges-

23. Vaidhyathan, *supra* note 1, at 80.

24. *See id.* at 35-37.

tions were not enacted into law until the 1976 Copyright Act under which that author was granted a copyright term of life plus fifty years, which was extended to seventy years in 1998 under the Sonny Bono Term Restoration Act. Even though Twain lost his cause in the short run, his changing notions of property and property rights illustrate, as Vaidhyanathan successfully demonstrates, the confusion bedeviling current copyright law over ownership and control.

Twain had a very complicated and shifting notion of property throughout his literary career. Vaidhyanathan summarizes an anecdote from Twain's *Roughing It*, published in 1870.²⁵ The anecdote has to do with an erudite Eastern lawyer named Bunscombe who has moved out to Nevada and is made the butt of a joke in a litigation brought by his client Hyde. Hyde sues Morgan for trespass after Morgan's house slides down a mountain onto Hyde's property as a result of an avalanche. Morgan refuses to leave claiming that since he is still on his dirt, he is technically on his property even if it is now on Hyde's land. Bunscombe, in representing Hyde, bases his case on a positive theory of law: Morgan is within the metes and bounds of Hyde's property and therefore is a trespasser. The judge disagrees, ruling that "Heaven created the ranches and it is Heaven's prerogative to rearrange them, to experiment with them, to shift them around at its pleasure." In other words, Morgan had a natural right in his land, regardless of where his land may actually be. In this anecdote, Twain invokes a mocking tone towards the judge, especially his appeal to divinity. But Vaidhyanathan argues that Twain's views on copyright "were remarkably similar to the judge's 'natural law' ruling about real property."

Vaidhyanathan traces Twain's natural-rights conception of copyright to concerns about protecting American authors. Twain's concerns were two-fold. First, he did not appreciate pirated copies of his works appearing in bookstores in Great Britain and Canada. Like Dickens a generation before, Twain wanted copyright to protect against international piracy. But Twain was also concerned with competition from foreign authors. His own works often could not compete with pirated versions of Dickens that flooded U.S. bookstores. Limiting the shelf space allotted to pirated Dickens, thought Twain, would make more room for his books. Twain's motivations in expanding copyright law were clearly instrumental; protecting authors, even foreign authors, would ironically further competition and increase international recognition for American authors, in general, and Twain, in particular.²⁶

25. See *id.* at 58–59 (citing MARK TWAIN, *ROUGHING IT* 221–27 (Harriet E. Smith & Edgar M. Branch eds., Univ. of Cal. Press 1993) (1870)).

Twain's instrumental view of property rights is nicely illustrated by an anecdote from his novel *Pudd'nhead Wilson*, an anecdote Vaidhyanathan does not discuss in his book, but one that I have always found insightful.²⁷ The anecdote once again concerns an Eastern educated attorney who has just moved to a town west of the Mississippi, in this case in Missouri. The attorney attempts to mingle in with a group of townies who are congregated at the town store. A dog is sitting nearby the store and begins howling. As an icebreaker, the attorney says: "I wish I owned half that dog." When one of the townspeople asks why, the lawyer responds: "Then I could kill my half." The joke falls flat, the townspeople think the lawyer is slow-witted, and he is referred to from then on (until he wins an important case) as "Pudd'nhead."

This anecdote is revealing for three reasons. First, it illustrates the complicated relation between physical and intangible property. The lawyer recognizes that he need own only a fraction of the dog to be able to exercise his rights over the property. What matters are the legal rights, not tangible ownership. The townspeople who are confounded by his reasoning see ownership only in tangible, physical terms. Second, the anecdote works as a not so subtle commentary on the notion of the commons itself. Can the dog be owned by anyone? Whose dog is it anyway? The lawyer is quick to claim an ownership interest, but is also quick to conclude that privatizing the portion of the dog permits him to kill the whole thing. What happened to the interests in the fraction of the dog not owned by the lawyer? Finally, Twain illustrates here an instrumental view of property. The purpose of ownership is to reach certain ends. Granting ownership in the dog, even a fractional one, is a means to the end of shutting the dog up. As Vaidhyanathan points out, Twain's views on copyright were largely instrumental ones as well, ones that laid the path to the killing of the commons and creativity in the twentieth century.

But Twain had help from such disparate sources as Justice Holmes, director D.W. Griffith, and Judge Learned Hand. According to Vaidhyanathan, Justice Holmes single-handedly rewrote copyright law and expanded its scope.²⁸ In his famous *Bleistein* decision, Justice Holmes ruled that copyright protection extended to a circus advertising poster, expanding copyright protection from literary works and

26. Twain's advocacy of copyright was first expressed in an important essay entitled "The Great American Peanut Stand," published in 1898. Vaidhyanathan, *supra* note 1, at 70-78.

27. See MARK TWAIN, *PUDD'NHEAD WILSON AND OTHER TALES* 6 (R.D. Gooder ed., Oxford Univ. Press 1992) (1893).

28. See Vaidhyanathan, *supra* note 1, at 95. Vaidhyanathan discusses in great detail one reason why Justice Holmes sought to strengthen copyright protection: the lost revenues he suffered from pirated copies of his father's literary writing.

works of fine arts to commercial products.²⁹ In the equally famous *Ben-Hur* case, Justice Holmes ruled that the producers of a movie had infringed the copyright in a book, expanding the meaning of derivative work under the Copyright Act.³⁰

What Justice Holmes did for copyright doctrine, D.W. Griffith did for copyright practice. After breaking out from a controlling studio system himself, D.W. Griffith established his own movie company in 1913 and made extensive use of the provisions of the 1909 Copyright Act to secure rights in his productions.³¹ First, Griffith had much of the scripting and musical compositions done within his studio in order for copyright in the script and music to vest in his company under the work-for-hire doctrine that had been first codified in the 1909 Act. Second, Griffith established licensing practices that permitted the transfer of copyrights in musical compositions and books to his company when he negotiated for rights to make movies. While Justice Holmes expanded copyright's domain, Griffith perfected certain copyright management techniques to secure corporate copyright ownership.

Judge Hand's role in this trinity was to clarify the standard for infringement that, unintentionally, led to greater protection for copyright owners.³² In a series of copyright decisions involving infringement by movie makers of dramatic and literary works, Judge Hand established two propositions: (1) a subsequent creator was free to take the idea as long as he did not take protected expression and (2) a web of ideas may constitute protected expression if the web constitutes a pattern. The two propositions were meant to be complementary, but as Vaidhyanathan points out, they are potentially in conflict. Judge Hand's goal was to clarify the standard for infringement and to provide guidance to fact finders as they compared different types of works in infringement cases. His opinions were very analytical, taking apart aspects of characters and plot and scenes in making his comparisons. Unfortunately, subsequent courts have been less careful and the "web of ideas" proposition has led courts to find infringement when there may really have not been any. The example Vaidhyanathan gives is the famous *Sid & Marty Krofft* case in which the Ninth Circuit found that a McDonald's commercial infringed *H.R. Puff'nstuff*, a children's television program.³³ Another example is provided by the Saul Steinberg case, in which a district court in New York found that the creator of a movie poster for *Moscow on the Hudson* infringed the

29. See *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239 (1903).

30. See *Kalem Co. v. Harper Bros.*, 222 U.S. 55 (1911).

31. See Vaidhyanathan, *supra* note 1, at 96–105.

32. See *id.* at 105–12.

33. See *Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp.*, 562 F.2d 1127 (9th Cir. 1977).

famous Steinberg cartoon of New York from *The New Yorker*.³⁴ What started out as clarification in Judge Hand's careful hands has been used, according to Vaidhyanathan, to strengthen the copyright owner's rights in infringement actions.

Vaidhyanathan's history of the experiences of the United States with copyright in the twentieth century concludes with a discussion of the treatment of music, the expansion of control by the recording industry, and the challenge to copyright posed by digital technology. Much of his story is familiar and he does an excellent job of synthesizing the various cases to illustrate the tensions that arise among recording companies, artists, and users. The digitization of music creates challenges to the traditional means of producing and distributing music. Vaidhyanathan sees a challenge to the idea-expression distinction because digitization reduces everything to a series of zeroes and ones.³⁵ His point is well-taken, but it is less controversial now, especially if one recognizes that the ones and zeroes of code are just another language for expression.³⁶ The more insurmountable threat posed by digitization is its ability to reduce the costs of copying and distributing copyrightable works.³⁷ Digitization, as stated before, permits disintermediation and blurs the distinctions between authors, producers, distributors, and users. The age we are living in is one where the traditional relationships between production, distribution, and consumption are being reconfigured by digital technologies. The effect on copyright is only one small part of the story. As Vaidhyanathan points out, copyright law, previously viewed as a way to protect author's rights against publishers, has been transformed into a law that protects corporate interests and hinders progress and change.³⁸ Perhaps changing or getting rid of copyright will remove the barriers to innovation. That view is perhaps putting too much weight on copyright. But Vaidhyanathan tells a convincing story that copyright law has become a problem even if the scale of the problem is far from clear.

As mentioned before, Vaidhyanathan does not offer an extensive manifesto for reform. Instead, he states repeatedly that change is needed: "[T]here must be a formula that would acknowledge that all creativity relies on previous works, builds on 'the shoulder of giants,'

34. See *Steinberg v. Columbia Pictures Indus., Inc.*, 663 F. Supp. 706 (S.D.N.Y. 1987).

35. See Vaidhyanathan, *supra* note 1, at 152.

36. See *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240 (3d Cir. 1983) (holding that computer object code consisting of a string of zeroes and ones is copyrightable expression).

37. See, e.g., Shubha Ghosh, *Enlightening Identity and Copyright*, 49 BUFF. L. REV. 1315, 1332-1334 (2001) (arguing how digitization poses problems for the ideal of the romantic author).

38. See Vaidhyanathan, *supra* note 1, at 11-12, 148.

yet would encourage — maximize — creative expression in multiple media and forms.”³⁹ But, as he is quick to underscore, the search for this formula has been derailed by “a battle of strong interested parties seeking to control a market.”⁴⁰ Copyright law needs to be reformed by civic-mindedness, a concern for the benefit of the public. Vaidhyathan concludes, citing Madison, that a “leaky copyright system works best.”⁴¹ A leaky system would be one that would permit people “to comment on copyrighted works, make copies for teaching and research, and record their favorite programs for later viewing.”⁴² Furthermore, a leaky system would allow copyrighted works to pass into the public domain for all to enjoy. Vaidhyathan sees the current system as one very far from his ideal. He describes the current system as a recklessly constructed one that serves as an instrument of censorship of authors.⁴³ Vaidhyathan’s history is compelling even if it is lacking in detailed reforms.

The sole criticism I have of Vaidhyathan’s history is its focus on the twentieth century. Much of what is interesting about the current copyright debate, particularly the debates over market power and the commodification of information, have their roots in debates during the first half of the nineteenth century, raised by Senator Henry Clay’s attempts to introduce a bill recognizing an “international copyright.” As Vaidhyathan acknowledges, Senator Clay made five unsuccessful attempts to introduce such legislation from 1837 to 1842.⁴⁴ But this fleeting reference to Senator Clay is the sole acknowledgement of the nineteenth century debates over copyright. The terms of this debate were complicated and were developed with what today would be seen as excess verbiage in the pages of the *U.S. Magazine and Democratic Review*, *New York Review*, and the *Southern Quarterly Review*.⁴⁵

A more careful and detailed analysis of this debate is worthy of an article, but a brief consideration highlights an earlier origin for the twentieth century developments in copyright. Three positions can be discerned from the articles. The first is a position supporting Senator Clay in endorsing an international copyright under which the United States would recognize the rights of non-U.S. authors. The second is a position that is opposed to an international copyright on the grounds that such recognition would increase the cost of books, hurting U.S.

39. *Id.* at 116.

40. *Id.*

41. *Id.* at 184.

42. *Id.*

43. *See id.* at 189; *see also id.* at 185–86.

44. *See id.* at 51.

45. *Literary Property*, 2 U.S. MAG. & DEMOCRATIC REV. 289–311 (1839); *Literary Property*, 8 N.Y. REV. 273–307 (1839); *International Copyright*, 7 S.Q. REV. 1–46 (1843).

publishers and booksellers as well as U.S. consumers. A third position also opposes the international copyright, but on the grounds that copyright itself is theft, an usurpation of the natural rights of authors.⁴⁶ Advocates of the third position favored a perpetual copyright for authors grounded in common law principles of property rather than statutory law. The economic and political rationales for these three positions illustrate the complex set of interests implicated by intellectual property law. Advocates of an international copyright (foreshadowing the thought of Mark Twain on this issue) sought to protect American authors in the marketplace from pirated and cheap copies of British authors. Opponents were troubled by the ability of British authors to extend their copyright monopoly into the United States at the expense of the U.S. reader/consumer. Finally, advocates of a perpetual copyright wanted Congress to stay out of the fray and to restore what was seen as the rights of authors found in common law property.

It is fascinating to see the same issues arising over a hundred and fifty years ago. To protect or not to protect? Natural right or statutory right? The historical record suggests that despite the technological changes little advancement has occurred as matter of doctrine. What is particularly worth noting about this early debate is its context. The antebellum United States was also a period where heated debates were occurring about the role, extent, and structure of market society.⁴⁷ The debate over markets seeped into the debates over international copyright. Vaidhyathanan does a good job of presenting the twentieth century developments in copyright. What is missing is an appreciation of important roots of the current debate in the nineteenth century.

46. This position was expounded by a Philadelphia attorney named Phillip H. Nicklin in his pamphlet, "Remarks on Literary Property" published in 1838. The regional and political party dimensions are also well worth exploring in a longer work. Writers in the South viewed the debate as largely a Northeast issue. Nonetheless, Southern thinkers had much to say on the issue as can be imagined given the complicated politics of property during the antebellum period. The role of Senator Clay in the international copyright debate also would implicate the regional divisions over property rights. As far as political party divisions, the Whigs favored international copyright while the Democrats opposed it. For further discussion of the party split on property, see Alfred Brophy, *'Necessity Knows No Law': Vested Rights and the Styles of Reasoning in the Confederate Conscriptio Cases*, 69 MISS. L. J. 1123, 1176-1179 (2000).

47. See CHARLES SELLERS, *THE MARKET REVOLUTION: JACKSONIAN AMERICA, 1815-1846* 364-394 (1991) (detailing the development of a "bourgeois republic" in the 1830's).

C. Complements Pointing Towards a Synthesis

Lessig's and Vaidhyanathan's books complement each other, as evidenced by the many citations in Lessig's book to Vaidhyanathan's, published two months earlier. *The Future of Ideas* provides a blueprint for legal reform designed to create a multi-layered commons to organize and regulate the Internet. *Copyrights and Copywrongs* provides a rich historical background explaining how contemporary copyright law developed. Vaidhyanathan demonstrates that Lessig's concerns encompass more than the Internet. What can we learn from reading the books together? What are the implications of a synthesis? I turn to these questions in the next section.

III. PEELING AWAY THE LAYERS, OR HOW THIN IS THIN?

The expansion of intellectual property rights is a twentieth century phenomenon, which is rooted, according to Vaidhyanathan, in the efforts of creators, publishers, and distributors to protect their economic interests in creative works. The uses of intellectual property protections to enjoin file-sharing arrangements, such as Napster, or to limit competition, as in the Amazon.com case, are just recent chapters in a larger story. But it is also the case that the story of intellectual property is a part of a broader story. Dominant players have always used contemporary institutions to secure and expand their interests, whether these uses entail the buying and selling of indulgences, the grant of government licenses to print or colonize, or the acquisition and enforcement of intellectual property rights. The challenge for legal reform is to address the threat from dominant players. In a democratic culture, changes in legislation, as suggested by Lessig, are the means to counter legislative capture by corporate and other interests. But these changes should be designed to redistribute power in order to secure the interests of creators, users, and some corporate players who are harmed by the dominant players. As Vaidhyanathan states, the legislative response requires moving towards thin protection of intellectual property. The difficult question is how thin is thin. Shaping intellectual property law for the twenty-first century entails avoiding the mistakes of the past. Lessig's detailed reform proposals provide one alternative. I contend, however, that they may not go far enough. Twenty-first century intellectual property law needs to harness the redistributive potential of law in providing a governance structure for the flourishing not only of creativity and innovation, but of a fully democratic market system.

A. Ownership, Control, and the Meaning of "Free Culture"

Lessig and Vaidhyanathan both see the structure of intellectual property law in terms of categories of ownership and control. Lessig is more explicit with his extensive discussion of the intellectual commons. A "commons" is a governance structure in which no one has the right to exclude anyone from access. Lessig's definition is largely in terms of control: no one controls the commons and hence it is free for all to use. What is not clear from Lessig's description is who owns the commons — who, to use the economic meaning of ownership, are the residual claimants.⁴⁸ Presumably if no one controls the commons, then everyone owns it, perhaps as equal claimants. Furthermore, Lessig may argue that if no one controls it, then it is irrelevant who owns it. But ownership is as important a concept as control. Questions of ownership would affect legal claims over division of the commons or its transformation. It matters whether the commons are jointly owned by all Americans or by all people of the world. It also matters whether ownership is vested in people or in governments.

An analogy used forcefully by Lessig illustrates the dangers of focusing solely on control or ownership rather than analyzing the two together. In a stimulating speech given at Duke Law School a few days after the publication of his book, Lessig argued that the current battles over intellectual property pitted the corporate interests of Southern California against the interests of creators and entrepreneurs in Northern California.⁴⁹ The North-South paradigm he invoked elegantly set up his characterization of the open source movement as analogous to the Free Labor Movement in the Northern States prior to the Civil War. Lessig in fact dubbed the open source movement the "Free Culture Movement."⁵⁰ As compelling as this analogy may be, it is disturbing at one level: the Free Labor Movement may not have been as free as we would imagine. As Robert Steinfeld has pointed out, the differences between free labor in the North and slave labor in the South are matters of degree; the use of the word "free" represents a normative judgment about what types of coercion are deemed acceptable.⁵¹ The Free Labor Movement may have vested ownership in

48. See, e.g., YORAM BARZEL, *ECONOMIC ANALYSIS OF PROPERTY RIGHTS* 16–32 (1997) (discussing market models for rationing goods in the public domain).

49. See Lawrence Lessig, *The Architecture of Innovation*, in *DUKE CONFERENCE ON THE PUBLIC DOMAIN FOCUS PAPER DISCUSSION DRAFTS* 177–91 (2001).

50. Lessig also uses this expression in his book. See Lessig, *supra* note 1, at 9–10.

51. See ROBERT J. STEINFELD, *COERCION, CONTRACT, AND FREE LABOR IN THE NINETEENTH CENTURY* 26 (2001) ("Where the opposition free/coerced labor is used, we have to see the line drawn between the two as a matter of convention. Practically all labor is elicited by confronting workers with a choice between work and a set of more or less disagreeable alternatives to work."). Professor Steinfeld also states, "We

workers, but control over their workplace and working life lay elsewhere. Changes in the law, such as the movement to short-term contracts and the expansion of unionism, may eventually have ceded more control to workers. Transferring ownership in one's labor did not mean that control was transferred as well. The notion of free and coerced culture similarly is a misleading dichotomy.

Lessig, and to a certain extent Vaidhyanathan, runs the risk of falling into a similar trap. The Free Culture Movement may transfer control rights, but ownership may still vest in stronger interests. File sharing provides one example of this. Permitting Napster and other peer-to-peer arrangements limits the ability of members of the RIAA to control the Internet and alternate distribution media, but as long as ownership in content and ownership in Internet portals (such as AOL) rest in corporate interests, the exercise of that control will be limited. Certainly, many of the solutions advocated by Lessig would address my concerns. But my point is that intellectual property reform needs to focus on both ownership and control issues.

As I stated above, implicit in Lessig's description of the commons is an ownership structure. The implied ownership may be one of joint ownership by all members of the commons. For example, in the open source context, the owners would be all computer programmers who have contributed or could potentially contribute to the development of the code. In terms of books and film, ownership may be much broader. The concept of the public domain suggests that all Americans have some ownership interest in works that are uncopyrightable or have expired copyrights. Lessig's and Vaidhyanathan's concern is the control that certain players have in determining the scope of the public domain. If my description of ownership is accurate, then Lessig and Vaidhyanathan have implicitly addressed the ownership issue. Perhaps the intellectual commons is owned by all potential users. It is far from clear, however, that such is the case. It can make a difference whether the commons is owned by the American people or by the U.S. government.

Furthermore, the categories of ownership and control are also limiting. The argument that Lessig and Vaidhyanathan are making can be formulated as follows: creativity is threatened because ownership and control of the intellectual commons are separated. This argument is, of course, exactly the argument made in the area of corporate law by Berle and Means in the 1930s.⁵² According to Berle and Means, United States corporations were mismanaged because ownership and control were separated. Shareholders, the owners, ceded control to

have to give up the idea that so-called free and coerced labor inhabit completely separate universes and try to understand both in terms of a common framework." *Id.* at 8.

52. See generally ADOLF A. BERLE & GARDINER C. MEANS, *THE MODERN CORPORATION & PRIVATE PROPERTY* (1932).

managers that lacked the interest to run the corporation in the long-term interest of shareholders. Since managers were not also owners, incentives existed for them to act opportunistically. Berle and Means, interestingly enough, structured their analysis in property terms: corporate property, or the assets that comprised a corporation, were being depleted because ownership and control were separated. Their research fueled a cottage industry on corporate law reform that ranged from changes to rules governing shareholder voting to imposition of broader fiduciary duty obligations of corporate managers to expanding the managerial role of shareholders.⁵³ Just as Berle and Means were concerned with how the separation of ownership and control threatened the management of corporate property, Lessig and Vaidhyathan are concerned with the threat to the management of the intellectual commons. Berle and Means responded to the threat by expanding the control of the owners; Lessig and Vaidhyathan propose limiting control.

Perhaps the problem is one of who owns intellectual property, not who controls it. For example, why have rights in intellectual property not been invested in someone other than authors, inventors, or their corporate patrons? Are the categories of ownership and control sufficiently rich enough to address the range of issues posed by intellectual property? The academic literature post-Berle and Means has been critical.⁵⁴ Giving shareholders more rights did not necessarily improve management of corporate property, especially when the shareholders were corporate raiders seeking to gut existing businesses or entrench current management. Furthermore, Berle and Means may have had the story wrong. Shareholders with their ability to liquidate and transfer their shares could use the market to discipline management. Consequently, the role of corporate law was to ensure that securities markets were active and free. Extrapolating from the corporate area to intellectual property, I ask, will limiting control be enough if ownership is still concentrated? Structuring the appropriate governance structure for the intellectual commons requires recognizing ownership and control. The question of ownership and control in the context of intellectual property rests on critical, but ignored, problems of distributive justice, an argument developed in the next subsection.

53. See Murray L. Weidenbaum & Mark Jensen, *Introduction to the Transaction Edition*, in BERLE & MEANS, *THE MODERN CORPORATION & PRIVATE PROPERTY* ix-xviii (1991) (tracing the influence of the Berle & Means hypothesis).

54. See ROBERTA ROMANO, *FOUNDATIONS OF CORPORATE LAW* 1-4 (1993) (discussing some key articles critiquing the Berle & Means hypothesis from the perspective of agency costs and efficient markets).

B. Intellectual Property Rights and Redistribution

Lessig and Vaidhyanathan have many points in common, but the most salient one is the link they draw between intellectual property law and innovation. The language of the U.S. Constitution grants Congress the power to enact copyright and patent laws "to Promote the Progress of Science and the Useful Arts."⁵⁵ The meaning of this directive is far from clear. The shared meaning, reflected in judicial opinions, legislative history, and academic articles, is that copyright and patent law should provide incentives for innovation by rewarding authors and inventors through limited monopolies in their creations. The presumption is that creativity and invention occur in response to the stimulus of reward. But this presumption can be questioned. The common response is that creativity and innovation occur independently of financial reward. This criticism is true, but somewhat misdirected. As long as some inventors respond to monetary rewards, the argument that intellectual property law spurs innovation still stands. My criticism is that basing intellectual property on the policy of stimulating progress through monetary rewards fails to answer some basic questions and creates an impoverished copyright and patent law. I contend that the language of "promoting progress" necessarily entails addressing some fundamental questions of redistributive justice. Lessig and Vaidhyanathan's reform proposals, although very useful, are limited, because they do not address these questions.

I develop my argument for a richer conception of intellectual property law in two steps. The first is addressing the point that the monetary reward view of intellectual property cannot answer the question of how much intellectual property protection is enough. The second is demonstrating the connection between intellectual property as subsidy with tax policy, an area that is fundamentally about questions of distributive justice. With these arguments in hand, I develop a theory of an instrumental intellectual property law, which I use to address the specific reform proposals touted by Lessig and Vaidhyanathan.

1. How Much Is Enough?

George Priest, an important contributor to the law and economics literature, raised a forgotten critique of the economic analysis of intellectual property law in an article in the 1980s.⁵⁶ Priest concluded that economists had nothing to offer to our understanding of intellectual property law because economic methods could not address the basic

55. U.S. CONST. art. I, § 8, cl. 8.

56. George L. Priest, *What Economists Can Tell Lawyers About Intellectual Property: Comment on Cheung*, 8 RES. L. & ECON. 19, 19-24 (1986).

question of how broad a scope there should be for intellectual property. The discipline of economics sheds no light on the questions of how long intellectual property rights should last or which sticks should be included in the intellectual property owner's bundle of rights.

As an illustration of my point (and perhaps a partial vindication of Professor Priest's argument), consider an exchange I recently had with a colleague who is an economist with no background in law. He asked me the simple question why patent terms did not vary with the kind of work produced. He was surprised about the set twenty-year term for all utility patents and suggested that the term should vary with the amount of expenditure on the development of the invention.⁵⁷ My answer was that the fixed term in part minimized administrative costs of the patent system. But, of course, that cannot be the sole answer or it would be a trivial justification for any rule. I also answered that varying the term with expenditure would create adverse incentives. If protection was directly linked to expenditure, then there would be incentives to increase expenditure purely to get the benefit of an extended patent term. The analogy was to the economic analysis of regulatory pricing of utilities in the 1960s and 1970s based on the average cost of the regulated utility.⁵⁸ In that context, rates were directly related to average cost, and consequently there was little incentive to reduce costs. Analogizing to intellectual property, my colleague's proposal would create incentives to "goldplate" research and development and innovation expenditures.

Of course the lawyerly response to my argument is that patent terms could be tied to "reasonable expenditures," specifically the amount of expenditure that would have been needed to create the new product. There is precedent for such a scheme within the law. The length of an injunction for misappropriation of a trade secret is tied to the reasonable amount of time it would have taken for the competitor to reverse engineer the secret.⁵⁹ In effect, the length of injunctive relief in trade secret law is tied to the reasonable actions of the breacher.

57. See David, *supra* note 2, at 129 (pointing out that contrary to actual patent law, economic theory focusing solely on welfare analysis would predict different patent terms for different inventions). Professor David uses the discrepancy between the predictions of traditional economic theory and actual intellectual property practice to conclude that traditional theory should be replaced with a historical and institutional approach. See *id.* at 129-30.

58. See Walter Baumol & Alvin Klevorick, *Input Choice and Rate-of-Return Regulation: An Overview of the Discussion*, 1 BELL J. ECON. 162-90 (1970) (discussing the Averch-Johnson effect and prediction of goldplating); see also JEAN-JACQUES LAFFONT & JEAN TIROLE, *A THEORY OF INCENTIVES IN PROCUREMENT AND REGULATION* 1-46 (1993) (surveying theories of industrial regulation).

59. See, e.g., *Shreyer v. Casco Prods. Corp.*, 190 F.2d 921 (2d Cir. 1951) (limiting duration of injunction to protecting lead time of trade secret owner).

Why not similarly tie length of intellectual property protection to the reasonable expenditure of the owner?

The answer must be that the fixed term for intellectual property protection is based upon some measure of what reasonable expenditure the law is going to protect. For example, by adopting a fixed term of twenty years for patent coverage, the law effectively denies protection to inventions that would require more than twenty years of exclusivity to warrant investment. The twenty-year term reflects a judgment that such high-ticket inventions do not get patent protection. Similarly, copyright's term of life plus fifty years must rest on the assumption that all original works fixed in a tangible medium of expression warrant protection. The question of intellectual property scope must rest on some basis other than merely providing incentives for innovation. The scope of intellectual property protection reflects tacit assumptions of what merits protection and what does not.

This last point has been made by other authors,⁶⁰ but what is surprising is that it is absent from the analyses of Lessig and Vaidhyanathan. Both authors argue that current intellectual property law stifles creativity by providing too strong a set of rights to the owner. Effectively, their argument is that current intellectual property law overcompensates the owner and undercompensates creative talent that builds on existing intellectual property. They conclude from this pattern of over- and undercompensation that the incentives for creativity are distorted. But how do the authors know what constitutes the proper level of compensation? What is a reasonable rate of return on investments in the creation of intellectual property?

At a minimum, the reasonable rate must be the return that is sufficient to guarantee that the investment would have taken place. But it is not possible to measure that rate of return without a determination of scope. Suppose a pharmaceutical company discovers a drug that cures a million people but does so at relatively low cost. Another company discovers a drug that cures a hundred thousand people but at ten times the cost (perhaps reflecting the specialized nature of the disease). Do the two companies deserve the same return? Should that return be based on the number of lives saved (the benefits of the drug) or on the costs of producing the drug? If we choose the former model, then why is it that the company should capture all the benefits of the product? After all, in textbook competitive markets, suppliers only receive a return on their costs and not any portion of the consumer benefit earned in the marketplace. Furthermore, in monopoly markets, probably more closely analogous to the patent case, the monopolist

60. See, e.g., ADAM JAFFE, *THE U.S. PATENT SYSTEM IN TRANSITION: POLICY INNOVATION AND THE INNOVATIVE PROCESS* (NBER Working Paper No. 7280, 1999) (surveying evidence on connection between patent protection and incentives for innovation and finding mixed support for this connection).

captures only a portion of the benefit as a return on his investment, unless he can perfectly price discriminate.

The question of how much is enough gets even more complex when considered from the perspective of what constitutes the bundle of rights. For example, does ownership of copyright in a novel include the right to authorize translations? In a case involving *Uncle Tom's Cabin* from the early nineteenth century, the court ruled in the negative, based on a reading of the copyright statute.⁶¹ Was this the right result? Did Harriet Beecher Stowe, or any author, need revenues from translations to ensure that the work would be produced? In contemporary terms, should the right of the author include the right to profit from movie versions? From web pages based on her copyright? From tile art that incorporates the author's work? At issue is the extent of the copyright owner's right to control derivative works. The answers, however, rest on more than a question of just reward or adequate return to ensure creation. Inherent in the answers are value judgments about what creative endeavors count and what their value should be.

Nothing I raise here devastates Lessig's or Vaidhyathan's conclusions. My arguments could very well support their conclusions, and I would contend that we would come to the same or similar agendas for reform, but the way we get there counts. The arguments presented by Lessig and Vaidhyathan presume improper incentives for creativity. Some activities are overcompensated, and others are undercompensated. Intellectual property should get the incentives right, and the correct level of creativity will result. Their conclusions rest not on a neutral connection between rewards and incentives, but on some implicit judgments about what type of creativity counts. This relationship is perhaps the most transparent with Lessig, whose focus is clearly on the development of the Internet. Vaidhyathan focuses on more than the Internet, but he too is motivated by protecting certain types of creativity rather than others. In his discussion of music, a thorough and well-researched chapter, he clearly expresses disdain for cultural misappropriation of African-American music by the mainstream.⁶² Copyright law facilitated this misappropriation. I am, needless to say, sympathetic to all of these values. But they do represent value judgment, and I urge that we recognize them in formulating the next generation of intellectual property law.

Progress in policy, however, does not occur through resolving difficult and sometimes unanswerable questions about value judgments. Practical politics and lawyering require that we make arguments as persuasively and often as narrowly as possible. I am not saying that

61. See *Stowe v. Thomas*, 23 F. Cas. 201 (E.D. Penn. 1853) (holding that German translation of Stowe's book took her ideas but not her expression and hence was not copyright infringement).

62. See Vaidhyathan, *supra* note 1, at 118-19.

we need to have a complete understanding of value judgments or to come to any consensus about value judgments in order to promote intellectual property reform. Both would be insurmountable prerequisites. By pointing out that advocacy of intellectual property reform entails value judgments about what type of creativity counts, intellectual property law is about more than simply providing incentives for innovation. Intellectual property law may be instrumental for many ends, all of which would be consistent with the goal of promoting progress. The instrumental use of intellectual property entails the balancing of many interests — those of creators, entrepreneurs, and users. Any specific intellectual property law reflects a judgment on how we balance these interests.

2. Towards an Instrumental Intellectual Property Law

I have argued that intellectual property serves many ends. The debate over intellectual property should be about the choice of ends that intellectual property should serve and how to shape the law to reach those ends. In this section, I propose that there are two models for how my reformulation of intellectual property law can work: one from environmental law, the other from tax law.

The analogy to environmental law is the most relevant to my discussion.⁶³ As stated above, Lessig's *The Future of Ideas* has been compared to *The Silent Spring*, the book that fueled the environmental movement in the sixties. Environmental law has evolved through the balancing of many interests. As with intellectual property law, environmental law is designed to reconcile conflicting interests over the use of resources. Industrialists need the air to dispose of waste from a production process; citizens (including sometimes the very same industrialists) need the air to breathe. The competing interests conflict, and environmental law resolves the conflict in many different ways that have altered over time. The two archetypal models of environmental law are the command-and-control model and the market incentive model. The command-and-control model dictates how much of a scarce resource a polluter can use to dispose of waste. Under the market incentive model, polluters and citizens compete in a market for the right to the scarce resource. The government establishes a market by allocating a fixed amount of the right that is tradable among the market participants in order to ensure the efficient level of pollution and the appropriate compensation for those who are harmed by the pollution.

63. For an elaboration of the analogy between environmental law and intellectual property, see James Boyle, *A Politics of Intellectual Property: Environmental Law for the Net?*, 47 DUKE L. J. 87 (1997).

The various models of environmental law illustrate three points. First, they balance competing interests arising from the use of a scarce resource. The command-and-control model strikes this balance with direct limitations on use. In contrast, the market model allows price mediated bargains to be struck on the use of the resource. Second, both models rest on a balance between ownership and control. Under the command-and-control model, control by the polluter is constrained; the polluter is not permitted to pollute as much as he desires. Under the market model, ownership and control are jointly affected. The polluter can pollute as much as he would like but must compensate the citizen. Under the market model, the polluter and the citizen are joint owners of the resource, but rights to control are mediated through market transactions. Finally, under both models, environmental law uses legal rights as instruments to reach various ends. The command-and-control model curbs the right to pollute in order to protect the interests of citizens. The market model uses the right to pollute as an instrument to allow the polluter and the citizen to satisfy their joint interests in manufacturing and a clean environment.

There are no direct analogues between the two models of environmental law and intellectual property law. Command and control in intellectual property would be dangerous, especially as applied to copyright.⁶⁴ The state dictating how expression can or cannot be used potentially runs afoul of the free-speech protections of the First Amendment. Furthermore, a market model is far from adequate for intellectual property law. The idea of fair use, for example, is to guarantee that there are certain uses of intellectual property that are allocated outside the strictures of the market. Nonetheless, intellectual property law reforms can learn several lessons from environmental law.

The first lesson is derived from the balancing of interests and multiple goals in environmental law. Like environmental law, intellectual property law is often concerned with conflicting uses of a resource. Although the resource in environmental law is in some sense natural, while the resource in intellectual property is made by humans, the natural-artificial dichotomy is irrelevant to the conflict. For intellectual property advocates to say that intellectual property law is only about creators is to either ignore the conflict or to resolve it against users.

64. However, the Digital Millennium Copyright Act and the proposed bill by Senator Hollings (D.-S.C) to implement copy prevention measures are recent examples of extending the command and control model to intellectual property. See JESSICA LITMAN, *DIGITAL COPYRIGHT* (2001); Glynn S. Lunney, *The Death of Copyright: Digital Technology, Private Copying, and the Digital Millennium Copyright Act*, 87 VA. L. REV. 813, 814 (2001) (bemoaning the death of copyright). For a report on the Hollings bill, see *Leahy Looks to Marketplace for Piracy Solutions*, THE HOLLYWOOD REPORTER, Mar. 15, 2002.

Second, our experience with environmental law illustrates that rights are instruments that are adjusted to reach various goals and the balancing of interests. Intellectual property rights, similarly, are not natural in any sense. They are products of the state and reflect a democratically established balance of interests. Rights are instruments, and we should be conscious of the consequences of manipulating them.

Finally, environmental law is about both ownership and control. The movement away from command and control regulation to market incentives within environmental law reflects the difficulties in establishing the proper guidelines for control. Vesting control over pollution in a government body while keeping ownership in the hands of industry confounded incentives. A market-based system not only vested control over pollution back into the hands of the polluter, it also split ownership and control between polluters and citizens and permitted market exchange to mediate the allocation of ownership and control. The reform proposals advocated by Lessig and Vaidhyanathan, much like command-and-control regulation, focus solely on control and not on ownership. As I argued above and as I develop below, intellectual property law reform must take into account ownership as well as control issues.

There is one important way in which environmental law is unhelpful for understanding intellectual property law: environmental law's focus is on the use of natural resources. Intellectual property law concerns man-made resources, which may not have been created or made public. Although the creation of incentives for innovation is not the sole goal of intellectual property law, it is certainly one of the goals. What model is there for designing intellectual property law to meet the goal of providing incentives for innovation? I propose that the proper analogy is to tax law.

To understand the analogy, it is important to recognize that intellectual property law subsidizes innovative activities. The government could reach the same result by providing tax breaks to companies that innovate. In effect, the government does provide such corporate welfare by allowing companies to deduct certain research and development expenditures. The intellectual property monopoly is in effect a negative tax intended to reward innovation. It can be analogized not only to tax deductions for research and development but also to tax breaks given for certain investments in plants and equipment.

Once intellectual property law is recognized in part as a type of tax and subsidy regime, several puzzles become clearer. The first is the argument made by Professor Fred Yen in an unpublished speech

given at the University of Georgia Law School in 1999,⁶⁵ that the Copyright Act with its increased complexity has begun to resemble the tax code. Just as the tax code reflects government choices, often influenced by lobbying, to subsidize or not to subsidize different activities, so does the Copyright Act. One might raise the question, "Why has the Patent Act not been criticized for its complexity?"

Second, the family resemblance between intellectual property law and tax law need not be bemoaned (as Professor Yen seemingly does). The resemblance is to be expected and speaks proudly of the instrumental role of intellectual property law. Tax law reflects choices about what we as a society value, as some tax scholars have pointed out.⁶⁶ The treatment of housework, child care, investments in plants and equipment, educational expenses, health care, and gifts reflects judgments, which are often the result of industry capture and sometimes the result of deliberated public interest, about what activities should be encouraged and how. Tax law reflects distributive justice concerns, with all the successes and failures of discovering and then implementing equitable rules. The point is that tax law is clearly instrumental. We should recognize that instrumental nature of intellectual property as well.

The nature of interests that intellectual property law seeks to serve distinguishes intellectual property law from environmental law and tax law. In part designed to provide incentives for innovation, in part to secure the interests of users and improvers, intellectual property serves the instrumental ends of balancing the interests of innovators, entrepreneurs, and users. Reformers of intellectual property law should be mindful of this balance of interests. In the next section, I apply this competing vision of intellectual property in assessing the reform proposals of Lessig and Vaidhyanathan.

C. *Lessig's Reforms and Trimming Down the Fat of Intellectual Property*

Lessig and Vaidhyanathan raise several important points about the control granted to intellectual property owners but do not pay adequate attention to issues of ownership. The two authors also ignore the distributive justice questions that intellectual property raises and instead focus solely on intellectual property law's role in "incentivizing" creativity. In this last section, I bring these two points together by

65. Professor Yen provides a summary of his speech and some of his ideas on this issue in private email correspondence with author. See E-mail from Professor Alfred Yen to Professor Shubha Ghosh (Mar. 27, 2002) (on file with author).

66. See, e.g., Nancy C. Staudt, *The Hidden Costs of the Progressivity Debate*, 50 VAND. L. REV. 919, 929-57 (1997) (presenting a distributive justice approach to tax policy).

addressing several of Lessig's specific reform proposals. While I agree with much of the substance, my argument is that the proposals can be improved with an increased attention to the questions of ownership and distributive justice I have raised in this essay.

By focusing on Lessig, I do not mean to ignore Vaidhyanathan. But other than to say that copyright must be thinner, he offers less concrete suggestions than Lessig. How thin is thin? Many of the comments I make here are a response to that question.

1. Copyright Law and Disclosure

Patent law requires that the patentee disclose her invention before the property right is granted. Implied copyright does not have a disclosure requirement. The property right under copyright attaches when the work is fixed in a tangible medium of expression, regardless of whether the work is ever made public. While it is true that the work must be registered and deposited in order to secure one's rights to sue for infringement in federal court and to obtain statutory damages and attorney's fees, the registration and deposit requirement merely archives the work and does not mandate that the author disclose any secrets that went into the creation of the work. For most works, transparency will lead to disclosure upon publication. Once a novel is distributed, its expression is open for everyone to see. The same can be said for music. But consider film. Although the images are open, information about how to create the special effects is not disclosed through publication of the movie. Now also consider software. Publication of the software does not disclose the underlying source code. Furthermore, under special guidelines from the Copyright Office, registration and deposit of the software can be met without disclosing the entire source code; only a portion need be registered and deposited to secure the rights of the copyright owner of the software.⁶⁷

Lessig's most important reform proposal is requiring that source code be disclosed as soon as the software copyright expires. Under his proposal, the author of the software would deposit the entire source code with the Copyright Office in order to obtain copyright protection, and the Copyright Office would be required to allow anyone to have access to the source code when the copyright expires. Of course, in conjunction with this proposal, Lessig would advocate shortening the term of copyright protection for software to five years. I am one

67. See U.S. Copyright Office, Circular 1: Copyright Basics (June 1999), available at <http://www.copyright.gov/circs/circ61.html> ("If the work is an unpublished or published computer program, the deposit requirement is one visually perceptible copy in source code of the first 25 pages and last 25 pages of the program."); see also U.S. Copyright Office, Circular 61: Copyright Registration for Computer Programs (June 1999), available at <http://www.copyright.gov/circs/circ61.html>.

hundred percent behind this proposal, but the political opposition it would raise is only hinted at by the resistance Microsoft is showing in the settlement of the antitrust claims against it in Europe.⁶⁸ There, the court wants Microsoft to disclose its code and license it unconditionally to any legitimate users. Lessig's proposal is drastic, but it will cure many of the bottlenecks in the software industry that are raised by current copyright protection of source code.

The beauty of Lessig's proposal is that it explicitly deals with the ownership issue. At the end of the copyright period, anyone has access to the source code. Every citizen is implicitly its owner. The Copyright Office acts, under Lessig's scheme, as a trustee whose sole duty is to guarantee access. The scheme takes advantage of the power of property rights and of the government to manage property in a very simple manner. Mandating disclosure of source code would also balance the various interests protected by copyright law. The protection will ensure a return on the author's investment, and the disclosure would protect users, particularly subsequent developers. I have advocated a similar proposal in an analysis of appropriate remedies in the Microsoft case.⁶⁹

2. Copyright Terms

Lessig also seeks to limit the duration of copyright for all works, not just software. Mark Twain's life plus fifty years, as enacted in the 1976 Act, extended the life of many works that would have entered the public domain in the seventies, eighties, and nineties. The two twenty-eight-year terms under the 1909 Act were more favorable to the public. Many works fell into the public domain when authors failed to renew after the first term. Lessig seeks to replicate these desirable features of the 1909 Act by amending the 1976 Act to require fifteen five-year terms with mandatory renewal after each term for all works, except software.

Lessig's proposal ignores a very crucial ownership issue that arose in the *Stewart v. Abend* case.⁷⁰ The case had to do with the copyright in the film *Rear Window*, which was based on a short story by Cornell Woolrich. The story was protected under the 1909 Copyright Act. At the beginning of the first twenty-eight-year term, the author of the story licensed the right to make the movie to Jimmy

68. See Paul Meller, *Microsoft is Resisting Licensing of its Code*, N.Y. TIMES, Dec. 4, 2001, at W1.

69. See Shubha Ghosh, *Revealing the Microsoft Windows Source Code*, at <http://www.gigalaw.com/articles/ghosh-2000-01-p1.html>. Microsoft may be recognizing the merits of open source or perhaps finding ways to pre-empt Linux. See Rebecca Buckman, *In Concession, Microsoft to Share Some 'Source Code' with Students*, WALL ST. J., Mar. 27, 2002, at B1, B4.

70. 495 U.S. 207 (1990).

Stewart and his production company, with a promise that the author would renew the copyright in the story at the end of the first twenty-eight-year term. Unfortunately, the author died before the copyright was renewed. Upon his death, all of his property, including his copyrights, descended to his son. The son renewed the copyright in the story and subsequently refused the makers of the movie the right to distribute the film, claiming a copyright interest in the movie based upon his interest in the story. The question that went up to the Supreme Court can be stated bluntly as follows: What rights did the copyright owner of the story have in the movie?

The makers of the movie had a fairly cogent argument: they were given the right to make the movie by the original copyright owner and the right was not time-limited. The author and Jimmy Stewart had not included any time limits or reversions in the license. Once the filmmaker received permission to make the film, he had the copyright in it. The Supreme Court disagreed. Given the structure of the terms under the 1909 Act, there was a reversion at the end of the first twenty-eight-year term in the copyright in the story. The son obtained that reversionary interest as well as all other copyrights that his father had upon death. The son could have chosen to let the reversionary interest lapse by failing to register. Failure to register would mean that the story would fall into the public domain and anyone could use it. But once he registered, he obtained all dimensions of the copyright in the story, including the right to make films. Effectively, when Jimmy Stewart obtained the right to make the film, he received the right only for the first twenty-eight-year term with the right to make the film reverting back to the copyright owner upon expiration of the term. Unfortunately for Jimmy Stewart, the right reverted back to the recalcitrant son of the author.

The *Stewart v. Abend* case provides one glimpse into the problems created by what is referred to in copyright law as a derivative work.⁷¹ I turn to these problems in greater detail in the next subsection. Lessig's proposed fifteen five-year terms is subject to the problem raised by *Stewart v. Abend*. The reform fails to take into consideration ownership issues. Fortunately, the 1976 Act offers one solution to the problem that can be applied to Lessig's multiple terms.

71. An implication of the holding of *Stewart v. Abend* is a phenomenon we are all familiar with: the near disappearance of broadcasts of the movie *It's A Wonderful Life*. The copyright in the movie failed to be renewed in the seventies. Consequently, the movie fell in the public domain and broadcasts mushroomed during the holiday season. Rumor has it that one station during the 1980s showed the movie repeatedly over a twenty-four period. After *Stewart v. Abend*, the copyright owners in the movie secured the copyright in the story from which the movie was derived. The copyright in the story had been properly renewed and had not expired. Under the ruling of *Stewart*, he who owned the copyright controlled the derivative work. Hence, we are blessed with fewer showings of another Jimmy Stewart classic.

The 1976 Act created special termination rights, which allow the copyright owner to unilaterally terminate upon notice certain long-term licenses and contracts that had been entered into. The rationale for these termination rights was securing the rights of the copyright owner to renegotiate certain contracts that may have been entered into when the copyright owner was less famous and unable to negotiate favorable terms. Termination rights under the 1976 Act are fairly extensive but include one big exception: the licensee of derivative rights (such as the right to make a film) can still distribute the derivative work created, but cannot make any new derivative works after the termination. The termination rights provisions will not affect any current works until at least the year 2013,⁷² and so there are no cases interpreting the provisions. Certainly, however, one way to address my concern with Lessig's multiple term proposal is to include a similar exception for derivative works in the revised provisions on copyright term. If multiple terms are adopted, the legislation should make clear that expiration of a term does not affect any rights secured in derivative works that were created.

3. Derivative Works

According to the Copyright Act of 1976, the copyright owner has the exclusive right "to prepare derivative works based upon the copyrighted work."⁷³ The Act offers the following definition:

A "derivative work" is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions,

72. The termination provisions of the Copyright Act are complicated. There are two separate provisions. Section 204 covers terminations for grants involving works created under the 1976 Act. 17 U.S.C. § 204. For those works, the right to terminate begins thirty-five years from the date of the grant. If the right, however, involves the right to publish, then the right to terminate begins either forty years after the grant or thirty-five years after the date of first publication, whichever is earlier. Since the earliest that a work could have been created under the 1976 Act and rights granted was January 1, 1978 (the effective date of the Act), the first time a right to terminate could begin would be January 1, 2013 (35 years plus 1978).

Section 304 covers termination rights for works copyrighted under the 1909 Act. For those works, the right to terminate begins fifty-six years after the grant or January 1, 1978, whichever is later. For rights granted in works under the 1909 Act, the earliest a termination could occur would be January 1, 2034 (fifty-six years plus 1978).

Under both provisions, the right to terminate exists for five years after it begins.

73. 17 U.S.C. § 106(2).

annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship, is a "derivative work."⁷⁴

The Act also specifies that (1) "protection for a work employing pre-existing material in which copyright subsists does not extend to any part of the work in which such material has been used unlawfully" and (2) "the copyright in a compilation or derivative work extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material."⁷⁵

If the copyright owner has the right to control all transformations, then the copyright holder can enjoin many useful and perhaps innocuous uses of his work. The treatment of fan websites is a common example of this problem. The development of peer-to-peer mechanisms is another. The current trend is to read the derivative right fairly broadly. One court has stated that the right of the copyright holder includes "the right, within broad limits, to curb the development of such a derivative market by refusing to license a copyrighted work or by doing so only on terms the copyright owner finds acceptable."⁷⁶ The case of the derivative work creator borrowing from the public domain also poses threats. It is conceivable that the derivative work may compete with the original work, preempt it, and effectively privatize it. For example, one court has determined that creating a collage based on previous works constitutes a derivative work.⁷⁷

Considering the importance of the derivative work definition, it is surprising that Lessig does not discuss the problem in greater detail. The problem of how to handle derivative works creates tremendous line-drawing powers. Limiting the right, perhaps to exclude translations or to exclude certain media, damages the author's ability to control the work and would in many instances harm the receiving audience. If anyone could make a movie of a novel or write the sequel without the author's permission, the benefits of having such new creations needs to be weighed against the costs of radically altering the author's original vision and the audience's expectations. I would make a very different sequel to *Star Wars* than would George Lucas, one that would certainly be less imaginative and take characters to a completely different frontier. Audiences certainly would be disappointed to see Ghosh's *Star Wars Two*. The audience disappointment

74. 17 U.S.C. § 101.

75. 17 U.S.C. § 103(a)-(b).

76. *UMG Recordings, Inc. v. MP3.com, Inc.*, 92 F. Supp. 2d 349, 352 (S.D.N.Y. 2000).

77. *See Mirage Editions, Inc. v. Albuquerque A.R.T. Co.*, 856 F.2d 1341 (9th Cir. 1988).

could be handled by requiring me to market my version with a disclaimer that George Lucas had nothing to do with my sequel. The source of law for this treatment of derivative works, however, would be the Lanham Act, the federal law that deals with unfair competition, and not copyright law. But the concerns are deeper than just audience confusion. Intellectual property law is also concerned with the chaos that can occur with multiple authors pursuing their vision of some common material. Hence, copyright law serves to give the author exclusive right to control all derivative works.

But this exclusive control also includes the right not to have any derivative works made at all, unless they are made on the copyright owner's terms. This control may be too broad, especially if the derivative work right is read too broadly. One partial solution is offered by the law's treatment of termination rights. As discussed in the previous sub-section, Copyright law allows the copyright owner to terminate certain grants of rights, but allows the licensee of the derivative work right to continue to use the derivative work after termination. But this provision applies only to terminations; it does not address what constitutes a derivative work for which permission must be granted initially.

Let me propose the following distinction that may be useful in sorting out the proper treatment of derivative works. The distinction rests on models from cellular biology and is meant to aid in understanding the meaning of transformation. The model in turns provides a foundation for the ownership and control structure that governs derivative works.

Some works that build on pre-existing works do so by using the pre-existing material as the core for the new work. In such a case, use of the new work necessarily entails use of the pre-existing materials and would fall squarely within the definition of derivative work in the statute as a work the copyright owner has the right to control. In other cases, new works are generated by fission; the new work splits off from the old one and has a life of its own. In such cases, the new work would not be a derivative work of the old. I refer to the first model as the nucleus model; the second as the fission model.

How is a court to decide whether the nucleus model or the fission model applies to a particular work? Part of the answer has to do with considerations of such factors as amount taken and market effects, exactly the kind of factors that are considered in the fair use analysis. But the two competing models also serve as tools in interpreting the definition of "derivative work." The definition is quite broad; on its face, a derivative work includes any recasting, transformation, or adaptation of an existing work. But such a literal reading is inconsistent with the uses to which works are put. To take trivial examples, my rebinding of a book, say from paperback to hard cover, should not

constitute a derivative work. Such a transformation changes the physical aspect of the book, but not the expression. Similarly, my tearing out pages, perhaps a chapter I find offensive or incomprehensible, while changing the expression (at least for readers who grapple with the mangled text I have created) also should not constitute the creation of a derivative work. These trivial examples are cases where the alterations do not in some sense build on existing material. The altered works have a life of their own as a mutilation, not as a recasting, transformation, or adaptation.

The more difficult cases are ones where I build on the existing material but produce a work that seems to rely on the copyrighted work. The most common example is creating a movie based on a book. In some situations, the movie will be closely allied to the book, creating a visual representation of characters and scenes from the book. In others, the movie will be loosely based on the book, borrowing and building rather than simply visually representing the written material. As should be apparent from this discussion, the issue of what constitutes a derivative work is intimately connected to the idea-expression distinction. A repeated maxim of copyright law is that people are free to take the ideas from a copyrighted expression but not the expression itself. That distinction is at the heart of the meaning of derivative work. Recasting, transforming, or adapting the idea is permitted; doing any of the three with the expression is not.

But taking the expression is not sufficient for the creation of a derivative work. In *Lee v. A.R.T. Co.*,⁷⁸ the Second Circuit considered the case of a tile art producer who purchased postcard sized prints of copyrighted artworks and mounted them on tiles which he subsequently sold. The defendant's work, the tile cum copyrighted print, clearly took all the copyright owner's expression. But the court did not find these alterations sufficient to create a derivative work under the statute. The court's reasoning rested on analogy. If putting the artwork on tile created a derivative work, then so would putting the work in a frame. Marking the postcard with a marker or a message would also create a derivative work. The court concluded that such trivial variations could not constitute the creation of a derivative work without impeding the ordinary uses of the work. Therefore, the creation of a derivative work requires more than just some trivial effort. There must be a spark of creativity, showing the exercise of human imagination. To put the analysis another way, the creation of a derivative work involves not only the taking of expression (rather than idea), but also a taking that in a way that is creative and imaginative.

But defining what constitutes a derivative work does not by itself tell us how the rights in the derivative work should be split between

78. 125 F.3d 580 (2d Cir. 1997).

the copyright owner and the creator of the derivative work. The question of allocation of rights can be elucidated by recognizing that there are two competing models for how works are transformed, the nucleus model and the fission model. In some cases, as with the *Star Wars* sequel or with the stage adaptation of a novel, the adapted work depends for its existence on the first copyrighted work. In other cases, the dependence is more tenuous. For example, if I create a book containing answers and analysis of problems contained in a published physics book, to what extent is my book dependent on the physics book? As creator of the answer book, I may argue that my work, while based or inspired by the physics book, has a separate existence. Readers can appreciate my work without necessarily being aware of the physics book. However, a district court in New York disagreed with this assessment, finding that the answer book was intimately linked to the physics book even though the answer book did not expressly take any of the expression from the physics book.⁷⁹ At the other extreme is the tile art case, discussed above, in which the creator of the tile art did incorporate the entire author's expression, but did not transform it. In fact, the tile art existed independently from the postcards which it incorporated. When I read the full range of derivative work cases, the cellular metaphor is especially salient. In cases like the *Star Wars* sequel, the first copyrighted work is the nucleus for the second. In other cases, the second work is separating and differentiating from the first, but we see various degrees of differentiation ranging from partial ones, as in the answer book case, to total ones, as in the tile art case.

While interesting as metaphor, the cellular model also suggests that it is not enough to focus on the work in determining when the derivative right is implicated. My overview of the law raises three different ways in which the word "derivative" is used, once to describe a work, another to describe a right, and a third time to describe a market, as in the *MP3.com* case. Confusion in the case law in part stems from these different uses. But the underlying policy is the same: "By forbidding [others] from creating a work based on a pre-existing copyrighted work, the author is assured that he will reap the profits from his artistic contributions in accordance with the policies of the Copyright Act of 1976."⁸⁰ The current broad reading of the derivative right is that anything is fair game for the copyright owner, and therefore almost nothing is fair use for the copyright user. But such a broad reading seems inconsistent with the policies of copyright to promote progress by securing rights of authors in their works. By giving a copyright owner plenary authority over the creation of all derivative

79. See *Addison-Wesley Pub. Co. v. Brown*, 223 F. Supp. 219 (E.D.N.Y. 1963).

80. *Midway Mfg. v. Arctic, Int'l*, 1982 Copr. L. Dec. (CCH) ¶ 25,337 (N.D. Ill. 1981).

works, the rights of subsequent creators are secured not by copyright law, but by the law of the marketplace. This allocation of rights reflects certain distributive choices about who has the right to exploit certain markets. In order to be consistent with copyright law and to liberate the marketplace for subsequent creation, Congress should clarify the meaning of derivative works, narrowing the scope of the copyright owner's rights, and securing the rights of creators of works that build upon but are sufficiently different from existing copyrighted works.

It is not surprising that neither Lessig nor Vaidhyanathan prescribe specific reforms for derivative works. The issue is a difficult one, made even more so by the different dimensions of derivation: is it about the integrity of the work, of the author, or of the marketplace? The problem is that the derivative work right is about all three; the right protects the author's vision in his work, a vision that is transmitted ultimately through the marketplace. Lessig addresses the question of the scope of the derivative right by limiting the control of the author in his work through limits on duration. As suggested above, this change is not sufficient. I propose that if Congress cannot provide a more narrow definition of derivative work, then Congress should include in the Copyright Act the equivalent of a working requirement as it exists in patent law in many countries, other than the United States. The working requirement for patent permits the use and improvement of patented work by individuals other than the patent owner if the patent owner does not exploit his patent within a reasonable time.⁸¹ The purpose behind the working requirement is to prevent the patent holder from suppressing his patent. The United States does not recognize a working requirement because under U.S. patent law the owner has the right to suppress his patent if he so chooses. A similar result obtains in Copyright law through the exclusive right to make derivative works. But, as Lessig and Vaidhyanathan would recognize, this exclusive right can stifle creativity. By imposing a working requirement on copyright, subsequent creators can exploit markets that the copyright owner has failed or is unable to exploit. Under my proposal, if the copyright owner has not entered into a market for his work, and a subsequent creator finds an innovative variation on the work, then the subsequent creator cannot be stopped from making such a creation. Consequently, the proper balance is established between protect-

81. "Each country of the Union shall have the right to take legislative measures providing for the grant of compulsory licenses to prevent the abuses which might result from the exercise of exclusive rights conferred by the patent, for example, failure to work." Paris Industrial Property Convention, Article 5(A)(2); see also Jerome Reichman, *The TRIPS Agreement Comes of Age: Conflict or Cooperation with the Developing Countries?*, 32 CASE W. RES. J. INT'L L. 441, 461 (2000) (arguing that the working requirement for patent survives the implementation of TRIPS).

ing the rights of the copyright owner, subsequent creators, and the public.⁸²

4. Fair Use

Fair use is a defense to copyright infringement that permits certain infringing uses based upon a multi-part balancing test. The fair use analysis requires the court to balance four factors:

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.⁸³

The Supreme Court has stated that no one factor is dispositive in determining fair use. In *Campbell v. Acuff-Rose Music, Inc.*,⁸⁴ the Court rejected the reasoning of the district court that because the infringement was motivated by commercial exploitation, the use could not be fair. Instead, the Court stated that all factors need be considered, specifically the fact that a work may constitute a parody a market for which may be stifled if parodists needed to obtain permission from copyright owners in creating their parodies.

Lessig proposes the converse of the proposition rejected by the Supreme Court. While the high court rejected the proposition that commercial use by itself cannot constitute fair use, Lessig advocates that non-commercial use is sufficient to establish fair use. In other words, any non-commercial exploitation of a copyrighted work, such as private home copying, cannot be infringement. The proposition seems to be inconsistent with the court's holding in *Campbell* since it reduces the multi-factor balancing test of fair use to a single rule. At the same time, Lessig's proposal is a modest one: would a copyright owner ever sue for a non-commercial exploitation?

The problem with excusing non-commercial exploitation is that in a networked society, especially one in which the market is an important building block, everything is connected. Even if a particular use is non-commercial from the perspective of the user, someone may be

82. See Mark Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 1076 (1997) (suggesting the development of a blocking copyright to secure the rights of improvers in the derivative work context).

83. 17 U.S.C. § 107.

84. 510 U.S. 569, 584 (1994).

profiting from it. In the *Sony* case, the motion picture studios were suing the manufacturer of the VCR, not the home users.⁸⁵ Their theory was one of contributory infringement, that the manufacturer of the VCR was facilitating copyright infringement. In that case, the Court did find that the manufacturer was not liable for contributory infringement because the direct infringement by the home users was fair use. The determination of fair use depended only in part on the non-commercial purpose of the home use, but more substantively on the value of time-shifting, or the ability of the home user to watch broadcast at different times. The point though is that there was commercial exploitation of the non-commercial use. Sony profited from private home copying. Why should not the copyright owner obtain a share of Sony's profits or be able to enjoin it all together?

Once again the question of fair use is largely one of distributive justice. The decision in *Sony* permitted the company to continue making and selling the VCR and excluded the motion picture studios from exploiting the home use of its copyrighted material for time shifting purposes. More importantly, the *Sony* decision did not by any means exclude the motion picture studios from the home videotaping market at all. The dissemination of the VCR that the case facilitated created another market for the studios to exploit. The decision, finally, ensured that Sony could profit from its invention while providing minimum harm to the copyright owner.

Because of the connectedness of individuals and interests in a networked society, the line between commercial and non-commercial purposes is impossible to draw. *The World Wide Church of God* case provides another striking example.⁸⁶ In that case, dissident members of a church continued to publish and distribute a bible that the church was trying to suppress because of its racist messages. The church sued the dissidents for copyright infringement. The dissidents claimed fair use and lost. The court found, among other things, that the use of the Bible by the dissident church was not wholly non-commercial. They did sell a few copies, but more importantly the use of the bible was important for fund raising and dissemination of the dissidents' message, which could result in both pecuniary and non-pecuniary benefits. The same court cited its *World Wide Church of God* case in the *Napster* decision⁸⁷ to find that even though Napster was ostensibly for free, dissemination of the file sharing system would facilitate commercialization in the future. Furthermore, the court rejected the argument that Napster facilitated use at different time and place (the space shifting argument) because free downloading is a commercial use,

85. See *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

86. *Worldwide Church of God v. Philadelphia Church of God, Inc.*, 227 F.3d 1110 (9th Cir. 2000).

87. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001).

substituting for a sale of the *music*. There is no clear distinction between commercial and non-commercial uses.

A more effective reform of fair use is to require a showing of actual harm to a potential market in order to defeat the fair use defense. An existing factor in the fair use defense is the amount of the infringed work that was taken by the infringer. The fourth factor, which focuses on the effect on potential markets for the infringed work, should be amended to focus on "the amount of the market for the infringed work that is taken." As currently read, the fourth factor vests in the copyright owner the right to enter into any market for the copyrighted work. But, as with the discussion of derivative works above, it is far from clear why the copyright owner should have such a broad right essentially to enjoin any newcomer that can create or develop a new market. The *Sony* case demonstrates that a copyright owner can effectively share a new market with a contributory infringer. The law can strike the balance between copyright owners and subsequent innovators by permitting infringing uses if the harm to the potential market is minimal. To implement this principle, the copyright owner should bear the burden of proving actual harm to his potential market. Under such an approach, wholesale piracy would still be actionable, but infringing uses that create new markets which the copyright owner has no intention of exploiting or private uses that are *de minimus* in the effect on the market will be allowed.

5. First Amendment?

Finally, it is surprising that neither Lessig nor Vaidhyanathan address the potential conflict between intellectual property law, particularly copyright, and the First Amendment. Several law review articles have recently addressed this issue,⁸⁸ and it was the focal point in a recent challenge to the Digital Millennium Copyright Act.⁸⁹ In that challenge, a hacker alleged that the DMCA violated the First Amendment when the act was used to enjoin his publication of a computer program that permitted decryption of the code that protected movies on DVDs. The hacker's challenge was unsuccessful although the court did acknowledge that computer code was speech and its regulation was subject to First Amendment scrutiny. The intersection of the First Amendment and copyright law is a burgeoning area of the law, and even more decisions on the issue will arise in the future.

88. See, e.g., Mark Lemley & Eugene Volokh, *Freedom of Speech and Injunctions in Intellectual Property Cases*, 48 DUKE L.J. 147 (1998); Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on the Enclosure of the Public Domain*, 74 N.Y.U. L. REV. 354 (1999); Neil W. Netanel, *Locating Copyright Within the First Amendment Skein*, 54 STAN. L. REV. 1 (2001).

89. *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001).

Why then are Lessig's and Vaidhyanathan's books silent on this issue?

The primary reason is the recalcitrance of the courts in recognizing the First Amendment implications of copyright law. Several circuits, including most recently the court of appeals of the D.C. Circuit, held that copyright was immune from First Amendment scrutiny.⁹⁰ Another reason is the ambiguous effects of a First Amendment jurisprudence as applied to copyright. The problem is that both the copyright owner and the infringer are engaging in speech. If the state is to be neutral in the regulation of speech, it will be difficult for it to protect the infringer's speech without also hurting that of the copyright owner. The resolution may lie in limiting First Amendment protection within copyright to the avoidance of prior restraints, which essentially would mean higher scrutiny to injunctive relief in copyright infringement cases. The recent decision of the Eleventh Circuit in *The Wind Done Gone* case is the perfect example of such an approach.⁹¹ How far this prior restraint rationale goes is developing in the case law. But expanding First Amendment analysis much further while benefiting copyright users would also benefit copyright owners, increasing their arsenal for maintaining control.

IV. HOW MUCH BETTER SHOULD INTELLECTUAL PROPERTY OWNERS EAT?

It seems that the boons of creativity, like Indulgence-Era salvation, can be purchased. Such purchase, when obtained through the acquisition of intellectual property rights, comes at the expense of creativity, the ostensible purpose of intellectual property law. These two sentences summarize Lessig's and Vaidhyanathan's books. My summary does not do justice to their rich and stimulating stories, but it does highlight the implicit assumption that intellectual property rights serve to "incentivize" creativity. According to the two authors, the problem with current law is that it over-rewards incumbents and under-rewards future innovators. I have suggested that intellectual property law's purpose is more than compensation for creativity. Copyright and patent law is an instrument for reaching certain distributive justice goals that balance the interests of creators, entrepreneurs, and users. In reforming intellectual property law, whatever the details, we should be clearly focused on our distributive justice goals and the implications of our choices.

90. *Eldred v. Reno*, 239 F.3d 372 (D.C. Cir. 2001), *aff'g* *United Video, Inc. v. FCC*, 890 F.2d 1173 (D.C. Cir. 1989). The U.S. Supreme Court has recently granted the certiorari petition in the *Eldred* case on the issue of congressional power to enact the Sonny Bono Copyright Term Extension Act.

91. *Suntrust Bank v. Houghton Mifflin Co.*, 252 F.3d 1165 (11th Cir. 2001).

Another film, this time from the seventies rather than the sixties, illustrates the themes of this Article. In the end of Roman Polanski's *Chinatown*, the protagonist confronts the evil land developer who has been deliberately flooding land in order to lower its cost for acquisition and asks him: "What is it that you want? How much better can you eat? What can you buy that you cannot already afford?" The developer replies, smiling: "The future." Before the publication of *The Future of Ideas* and *Copyrights and Copywrongs*, authors like Rivette and Klein, who referred to intellectual property as "smart bombs," made me concerned for the future. Authors like Lessig and Vaidyanathan lessen my worry and encourage readers to recognize the possibilities for intellectual property law in the twenty-first century. Are we ready to take the next steps?