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The future of intellectual property

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Abstract. This paper uses two recent works as a springboard for discussing the proper contours of intellectual property protection. Professor Lessig devotes much of *The Future of Ideas* to demonstrating how the expanding scope of intellectual property protection threatens the Internet as an innovation commons. Similarly, Professor Litman's message in *Digital Copyright* is that copyright law is both too complicated and too restrictive. Both authors contend that as a result of overprotecting individual rights, creativity is stifled and the vitality of the intellectual commons is in jeopardy. It is difficult to evaluate the claims and policy prescriptions of these books without some appreciation for the moral foundations of intellectual property. The utility and labor desert theories remain the two most prominent in the Anglo-American tradition. After exploring those theories, we argue for a secure regime of protection based on the Lockean vision that property rights are justly deserved as a reward for labor that creates value. However, as Locke's famous proviso implies, even a natural property right is not absolute and must be balanced by regard for the public domain. But a natural right cannot be sacrificed simply to advance technological innovation or to achieve marginal social and economic gains. While we agree with Lessig and Litman that recent legislation goes too far we conclude the essay by attempting to illustrate that some of their policy recommendations err in the opposite direction by underprotecting valid property rights.

Key words: authorship, business method patent, copyright, Copyright Term Extension Act (CTEA), Digital Millennium Copyright Act (DMCA), enclosure, hyperlink, intellectual commons, intellectual property rights, Internet, labor-desert theory, Locke, Napster, natural law, open source code, patents, public domain, utilitarianism

The frontier of cyberspace has certainly attracted the attention of countless lawyers and legal scholars, and no issue has been treated more extensively than intellectual property protection. While practitioners ardently defend intellectual property rights in the courts, their colleagues in law schools are reexamining the breadth and scope of those rights. Some scholars question the very notion of private ownership of intellectual property; others insist that while intellectual property rights may be valid, the US Congress and the courts have been too generous in assigning these rights. Moreover, they contend that the consequences of such expansion will suppress innovation in cyberspace.

The effort to extend property rights has been aptly called the 'enclosure' movement. Enclosure happens when a lengthy proprietary right is assigned to an intellectual work or some other form of common property so that it becomes unavailable to the public unless they are willing to pay something like a licensing fee. The extension of property rights to the human genome is often cited as an illustration of how common property, belonging to everyone, can become subject to 'enclosure.' According to many legal scholars this bias toward stronger exclusive rights is both worrisome and a potential threat to our free society. The antidote to enclosure is readily apparent – open source code, more easily accessible content, and a robust, dynamic intellectual commons.

Two recent books articulate these general themes. Both offer trenchant critiques on recent intellectual property policy and arcane US copyright laws. Both argue that an entrenched notion of property misapplied to intellectual objects is distorting public policy. In *The Future of Ideas* Lessig (2001) argues forcefully against the paradigm of perfect control. And in *Digital Copyright* Litman (2001) chronicles the many problems with current copyright law and suggests the need for a fairly radical transformation of that law.

Lessig is primarily preoccupied with the effects of tighter intellectual property protections on innovation. The open architecture of the Internet has been quite conducive for promoting innovation. Internet protocols have already given birth to the Web and a host of other applications. Litman, on the other hand, focuses more intently on how excessive copyright protection inhibits consumer freedoms such as the freedom to share a popular CD or movie with a friend. Both concur that the law has gone too far: protecting corporate and media interests at the expense of the public domain and democratic values.

Neither author supports information anarchy, that is, free and unfettered access to all types of information. Litman, however, seems to have little objection to civil disobedience or noncompliance with unfair and obscure copyright law. She is hopeful that the public's rejection of these laws will finally provoke Congress to make necessary changes.

Unlike legal scholars, other academic theorists such as information technology ethicists have largely eschewed these topics, manifesting more concern for issues such as privacy and civil liberties where there they perceive to be a greater sense of urgency. Ethicists and philosophers, however, should begin making a more ample contribution to the practical side of this intellectual property debate. In light of digital technology it is especially critical to re-examine the underpinnings of the moral legitimacy for intellectual property protection. Do we justify that protection instrumentally, purely on utilitarian grounds, granting rights only to incentivize social progress? Or are these rights 'natural' in some respects, grounded in deontological reasoning, as the Lockean tradition argues? How one resolves these questions will shape one's response to the modified intellectual property regime espoused by Lessig and Litman.

In this article we will use the important reflections of these two scholars as a springboard for interrogating this burgeoning problematic. For the most part we do not dispute that there has been an ominous trend among US policy makers to overemphasize property rights. But there is another trend that should not be overlooked. While property rights have undoubtedly become overinclusive thanks to new legislation, they are often dismissed or disparaged in academic circles. Post-modern critics, for example, find it hard to accept that creative works have a single author, so the assignment of a 'property right' loses intelligibility. Others scorn the notion of 'private' intellectual property as an unjust tool of oppression. Lessig and Litman avoid such theoretical considerations. But even in these works we find some disdain for the tradition which regards intellectual works as 'private property' and sympathy for questionable technologies such as Napster.

We contend here that just as we must avoid blindly expanding the scope of intellectual property protection, we must also avoid underestimating the importance of legitimate intellectual property rights. In order to evaluate properly the key issues and recommendations of both books we must turn to some consideration of the normative foundations of intellectual property. Our investigation of this complicated issue must be selective, of course, but along the way we will attempt to demonstrate the intellectual deserts of Locke's theory and its implications for intellectual property protection systems. We will rely on the work of Moore (2001), Becker (1977, 1993), and others to establish this argument. In contrast to the utilitarian justification, which also has validity, Locke's vision provides us with a more solid foundation for a property right. This does not mean that these rights should be absolute or overpowering, but at the same time they cannot be casually diluted simply to satisfy the latest wave of technological advances such as peer-to-peer networks. Our claim, therefore, is that a system of limited intellectual property protection is justified both as an inducement for future creative activity and as a reward for the intellectual labor associated with that socially valuable activity.

Support for this non-utilitarian justification for an intellectual property right certainly does not imply that Lessig and Litman are completely wrong about the threats posed by the expansion of proprietary control over information. Rather, it suggests that the maintenance of strong but sensible entitlements for intellectual property owners has a deeper justification than either of these authors is probably willing to admit. Moreover, it implies that we must find a way to navigate between tolerating free riders and stimulating innovation (through proprietary controls) even in the difficult terrain of cyberspace.

The Internet as a commons

Lessig is apprehensive about the future of the Internet, which he calls an innovation commons. In his first book, *Code and Other Values of Cyberspace*, he argued vigorously that the original Internet, which encouraged freedom and privacy, was being re-architected to the detriment of those 'constitutional' values (Lessig 1999a). A minor architecture like the cookie, for instance, is a great boon to online commerce, but it surely complicates consumer's efforts to keep their online transactions a private affair. The proliferation of filtering technologies also threatens to undermine the Net's capability for expanding free speech rights.

In *The Future of Ideas* (2001) Lessig develops a similar argument with bracing clarity. He contends that the same thing is happening to innovation thanks to the dominance of legal and technical architectures that enhance intellectual property entitlements. Lessig's main argument is that innovation and creativity depend upon free, uncontrolled resources. Lessig, of course, is not naïve and recognizes that some resources must be controlled, but at the same time many should be free. The Internet is one prominent example of such a resource. More precisely, according to Lessig, the Internet forms an 'innovation commons,' that is, a

space where innovation and creative expression can flourish.

In order to elucidate the main characteristics of this commons Lessig imports Benkler's notion of layers. According to Benkler (2000), the information infrastructure consist of three interdependent layers: physical, logical, and content. The content layer consists of information resources; the logical layer consists of the software, communications standards, and protocols; and the physical layer is composed of the telecommunications wires and fibers along with spectrum.

According to Bar and Sandvig (2000), the logical layer is the most critical: "In digital networks, this is the key layer: this is where network configuration is defined, where interconnection between physical networks is made possible or prevented, and where co-existence of various service providers is permitted or denied." At this logical layer, the Internet is vastly different from the telephone network, which was privately owned and fully controlled by AT&T. The Internet's open architecture, however, has been fully open to innovation. The Net's original architecture, relying on the protocol TCP/IP, was designed to be a neutral platform routing packets from one computer to another in nondiscriminatory fashion. Thus, the Internet is an 'innovation commons' because "innovators can develop and deploy new applications or content *without permission of anyone else*" (p. 40, emphasis in original). In contrast, the old AT&T network was designed to centralize innovation, but the Internet decentralizes it thanks to the fact that its core protocols have always been open.

Supporting this open logical layer is what Lessig calls a 'commons of code' that is responsible for the Net's ubiquity and rapid development. The original UNIX, GNU/Linux, the Apache Server, and Perl, are some of the open source software projects that helped to shape the Net. This free code 'builds a commons' (p. 57). Consider, for example, the Web's markup language, HTML. Every browser incorporates functionality that allows users to view the source code of a web page. This meant that programmers could easily learn this code, and, as a result, the Web grew more quickly than it might have if this code had been 'closed.' We have a prime example then of how open code is a stimulus for growth and innovation. Moreover, an open code platform (such as a browser or operating system) "keeps a platform honest," (p. 81) and prevents opportunistic behavior such as Microsoft's misuse of its proprietary code to enhance its competitive advantage.

Lessig's basic argument is that the original Internet was founded on these two types of commons: "the protocols of the Net embedded principles in the net that constructed an innovation commons at the code layer . . . [and] free source or open software provided a second commons at the content layer (p. 85)." Thanks to the Internet's open protocols individuals can use this resource to develop and deploy new applications without restrictions or permission. Thus, the Internet forms a commons through its specific technical architecture.

But what about the physical layer? Part of this layer is radio spectrum, electromagnetic radio frequencies used for transmitting radio signals, broadcasting television, and so forth. Since 1927 spectrum rights have been allocated by the government. According to Lessig, however, free spectrum could produce the equivalent of a commons at this level since access to the air waves would no longer be controlled by the elite who own these essential facilities. The debate about spectrum control is complicated and beyond the scope of this essay. However, even if people do not agree with Lessig's 'spectrum-as-commons' model, they might still concur that the management of spectrum needs revision in order to provide more stimulus for innovation.

Even without free spectrum we have witnessed remarkable innovation on the Internet in the past decade or so. As Castells (2001) points out, thanks to the Internet's open architecture, "users became producers of the technology, and shapers of the whole network." From their contributions a "flurry of never-planned applications resulted . . . from e-mail to bulleting boards and chat rooms, the MODEM, and ultimately the hypertext."

But the Net is shifting to a more commercialized and controlled environment, less open and less conducive to creativity. The ultimate source of this problem is the conversion of the Internet from a commons to private property. Common physical property is apt to suffer from a "tragedy of the commons," and so one might assume that such a transition is beneficial. When we enclose the commons to avoid exploitation there can be significant social gains. Lessig, however, wants to dispel the myth that private property is always superior to common property, since progress does not necessarily come from "dividing resources among private owners" (p. 13). This notion of a tragedy of the commons is too familiar to bear repeating, but recall that it occurs when individual incentives are at variance with the collective good and so the collective good or commons is overused.

But the Internet is more like intellectual property than physical property and hence it is not as vulnerable to the problem of overuse. Intellectual property, which includes ideas and other creative content, does not need the same level of protection as physical objects, since the consumption of intellectual objects

is nonrivalrous, that is, one person's consumption does not lessen the consumption of anyone else. Reading a poem by Keats does not deprive others of the same experience. When resources such as physical property are rivalrous the control system must ensure that those resources are produced but not overutilized. But if the resource is nonrivalrous the control system need only ensure that the resource is created. Hence we do not necessarily need the same system of control for both types of resources. Yet policy makers do not seem to acknowledge this key distinction, increasing controls for non-rivalrous resources without thinking through the implications.

According to Lessig, this lack of rivalrousness diminishes the government's need for regulation. And since the digital world is more analogous to the world of ideas than to the physical world, it too does not require so much regulation. We do not need to treat the resources of cyberspace in the same way we treat physical, rivalrous resources. It is not necessary to privatize this space to avert a tragedy of the commons. The fact that cyberspace has flourished as a commons seems adequate proof of that simple proposition.

If the Internet is a commons, we might legitimately inquire what this commons has given us so far. Has it lived up to its expectations? For Lessig it seems clear that this question must be answered affirmatively. This commons has indeed produced substantial innovation. Lessig cites many new technologies such as HTML books, P2P or peer-to-peer networks, MP3, Napster, collaborative filtering technologies for personalized marketing, and so forth. It has opened up new markets, encouraged more participation among artists and musicians, fostered new distribution systems, and now even threatens the structure of the oligopolistic music industry. All of these developments have happened because the Internet platform removes 'real space barriers' (p. 120). At the logical layer there is nothing controlling the flow of content (since all packets are treated the same), while access to the physical layer is inexpensive, enabling massive number of connected user and massive market for creative products.

Regrettably, the character of the Internet commons, this platform so conducive for innovation, is changing thanks to oppressive legal and technical architectures. Lessig cites two specific developments as the source of these problems: the assertion of control by private companies (especially those which function as Internet gatekeepers) and the expanding scope of intellectual property protection.

Lessig outlines these changes in Part III of the book titled 'Dot.Control,' where he shows how controls are working against the Internet commons at all three layers. Dangers are lurking at the physical layer thanks to vertical integration among key commercial players seeking to control the Internet's development. Consider the recent merger of America Online (AOL) and Time Warner – this new company combines the Time Warner cable unit and the ISP service of AOL. The pressure to exert greater control over access cannot be discounted. Without government intervention Time Warner could easily compel its customers to adopt AOL as their ISP, and this cable-owned ISP could easily begin putting restrictions on the content flowing over these cable wires.

Similarly, law and technology are working against openness at the content level. Examples of this abound: the legal crackdown on Napster and peer-to-peer technology in general; the excessive monitoring of copyrighted material by major corporations; the passage of the Copyright Term Extension Act (CTEA) which arbitrarily extends copyright protection by 20 years for both individual and corporate authors; other laws such as the Digital Millennium Copyright Act (DMCA) that fortify copyright protection with perilously broad provisions that forbid anticircumvention of code that protects copyrighted material.

Lessig does not dismiss the importance of copyright incentives to stimulate creative activity, but he stresses that limited copyright protection has always been the norm. There must be 'safety valves' such as fair use, first sale, and limited term to protect the public interest (Goldstein 1994). When those limits are removed or impaired, the scope of copyright protection becomes oppressive.

In addition to the tightening of copyright controls, the liberal interpretation of patent laws also threatens innovation. The granting of so-called business method patents to Amazon.com for its one-click method or to Priceline for its 'name your price' business model clearly do not seem warranted. It is far from clear that these patents are necessary for innovation. These cyberpatents can create a serious threat of holdup: they can freeze innovators from introducing innovations lest they trample on some one else's broad patent right. Lessig argues that software patents may even "tilt the process to harm open code developers" (p. 213). Generous rewards for private ownership such as a heavily protected monopoly for software code make it more difficult to convert software developers to the open code philosophy.

Opposition to these trends so far has only been nominal. People seem to accept the idea that robust controls are essential in cyberspace where content is so vulnerable. But, according to Lessig, these individuals are blinded by "the sanctity of perfect control" (p. 217). And this in turn cultivates a myopic vision of the possibilities for continuing innovation.

The upshot of these changes is that we are 'marching backward,' unraveling through law and

technology the liberating architecture of the original Internet (p. 236). Our errant ways come from idealizing private property and from rashly conceiving of all intellectual objects and creations as forms of property that need robust protection. As Lessig concludes his argument he presents his readers with a fundamental choice: we can embrace the "first version of the Net's architecture" which supported innovation. Or we can accept an Internet architecture where there is "perpetual control by homogenous corporations" (p. 239).

There are, of course, significant policy implications of Lessig's main thesis. Specifically, according to Lessig, in order to preserve the Internet as a neutral platform the government must find ways to protect the code layer; for example, it should encourage the development and adoption of open code such as Linux instead of proprietary code like Windows. Second, along these same lines, government should prevent any major player in the 'Internet space' from architecting that space "to empower its own strategic behavior" (p. 247). The case of Microsoft certainly comes to mind. When Microsoft bundled the Internet Explorer browser with Windows in an effort to vanquish Navigator from the marketplace, the net effect was to give Microsoft more control over Internet access through its browser. And, in order to promote openness at the content layer, Lessig advocates a revision of the copyright law. Among other things, he advocates the termination of the 'no effort monopoly' (p. 250) for copyright, and he proposes that published works be registered and protected for 5 year terms. The registration can be renewed for up to 15 times but if there is no renewal, the work automatically becomes part of the public domain. Software would also be protected for a term of 5 years with the opportunity for one renewal. Finally, in order to open up the physical layer, Lessig recommends that along side the auctioned spectrum or spectrum as property, there should be "broad swaths of spectrum as a commons" (p. 242). This new regime would maintain this commons for experimentation within parameters set by the FCC. If these recommendations were implemented, all three layers of the information infrastructure would support an open platform approach where there is ample opportunity for innovation.

Like *Code and Other Laws of Cyberspace*, *The Future of Ideas* ends on a passionate note. As he concludes the book Lessig underscores the virtues of the Net's original architecture. But threats are coming from many different directions and the architectures of control are gaining ground. We may still have a choice about the Net's future, but Lessig seems to feel that through inertia and indifference the public and its representatives will not choose wisely.

But, also like *Code,* one looks in vain in this book for any moral vision of the Internet. The supreme value seems to be 'innovation,' but technological innovation is not an end in itself, since we know that some innovations can be harmful. The efforts of humanity to dominate nature, which Heidegger (1950) crystallizes in the word 'technicity' (*Technik*), must be subject to some sort of moral evaluation. While most of the innovations cited by Lessig are socially beneficial, the freedom-to-innovate must be constrained by the common good, which includes basic natural rights such as the right to property. If a proper teleological vision were articulated, one could make more informed judgments about when such rights should take priority over technological innovations.

Copyright and the information economy

Litman's book, *Digital Copyright* (2001), shares many of the same concerns as Lessig's work. It too exposes the threats to the Internet that originate from inept and heavy-handed government intervention. Litman also tends to be pessimistic about the future of the Internet since she is unconvinced that Congress can escape the thrall of Hollywood and other corporate interests. This book has a considerably narrower focus as it zeroes in on the flaws in the US copyright legal system, which, in her view, is not only unfair but also "complicated, arcane, and counterintuitive" (p. 112). The law is so unfair and unbalanced because it fails to adequately take into account the public interest. As evidence she too cites the much-maligned Digital Millennium Copyright Act (DMCA). The roots of this law originate in the Clinton Administration's 1995 White Paper addressing the issue of copyright protection for the ephemeral content of cyberspace. The DMCA makes it illegal to circumvent access protection technologies such as encryption devices. But it appears to make no provision for those who want to circumvent a protection control for fair use purposes. The fundamental problem, according to Litman, is that "there is no overarching vision of the public interest animating the Digital Millennium Copyright Act" (pp. 144–145).

At the same time, the laws have become so complex and convoluted that ordinary citizens are easily confused. Most people, she contends, find provisions of copyright law arbitrary and incomprehensible. Moreover, the current copyright law has proven itself to be "remarkably education-resistant" (p. 114). People tend to disobey confusing laws that they do not understand, and the copyright statute is no exception.

The salience of Litman's insight on this issue should not be underestimated. It is crucial for govern-

ments to cultivate respect for the law since the product of disrespect is anarchy. Yet complicated and obscure copyright laws can defeat the normal, conscientious person's tendency to follow the law. Even those who have little sympathy for Napster should take note of this key lesson: "if a million members of the general public copy, save, transmit, and distribute content without paying attention to the written copyright rules, those rules are in danger of becoming irrelevant" (p. 114). Whether they *should* become irrelevant, of course, is a bone of contention, but those who believe in copyright law must realize the urgent need to simplify that law.

Much of this provocative book is dedicated to an in-depth discussion of the legislative process behind the formulation of copyright policy. According to Litman, the major industry players do not support legislation that fails to improve their position and enhance intellectual property protection. In effect, Congress too often delegates its authority to industry interests, "the real copyright experts" (p. 61). The only negotiation is among industry representatives, and as a result the public is effectively excluded from the process. Litman maintains that "while it is easy to claim that the interplay among all of the interests affected by copyright provides a proxy for the public interest, the statute that this interplay produces demonstrates that this isn't so" (p. 73). The passage of the DMCA, for example, is evidence of how the music industry used its leverage in Washington to the disadvantage of its potential rivals.

In addition, copyright principles and norms have changed, and these revised principles provide the underlying support for restrictive legislation. At the turn of the last century, the dominant metaphor for copyright was the idea of quid pro quo: authors are given limited exclusive rights in their work "in return for the immediate public dissemination of the work" (p. 78). Echoing Lessig's analysis, Litman observes that the new metaphor is possession of property: "we talk now of copyright as property that the owner is entitled to control – to sell to the public (or refuse to sell) on whatever terms the owner chooses" (p. 81). The emergence of this new paradigm has meant the weakening of the traditional safety valves such as first sale and fair use. It has also meant a "remarkable expansion of what we call piracy" (p. 85). Any unlicensed sharing of files becomes labeled as piracy, especially when that 'sharing' takes place between teenagers.

It is misleading, however, for Litman to suggest the novelty of 'control' as a metaphor for copyright protection. Copyright has always been about control exercised by excluding others from the use of one's property. Quite simply, private ownership confers control. One could argue that the primacy of 'control' language has begun to obscure a copyright's indigenous limits. That may be a legitimate problem, but if intellectual property is property, the owner has the right to control how that property is to be utilized.

The digital revolution has also created an opportunity for broadening the scope of copyright protection. Digital technology makes copying trivially easy; hence the need for stronger protections, at least according to the logic of established media companies who own much of that content. And in their zeal to curtail copying of music or movie files, the content industry has also sought to scale back or even eliminate the fair use and first sale exceptions. What we may be moving to is a pay-per-view or pay-per-use structure with ironclad ownership rights and little balance.

Litman is right to sound the alarm about some of these unsavory developments. It is hard to see that the public would be the beneficiary of such a broad ownership structure where traditional safeguards such as fair use are impaired. But what, if anything, can be done to restore a balance between ownership rights and the public interest? Like Lessig, Litman offers several specific prescriptions such as terminating the copyright law provision that gives the copyright holder the right to reproduce. According to Litman, that right "is not fundamental to copyright in any sense other than the historical one" (p. 177). She reasons that in a digital world "the basic reproductive unit no longer serves our needs" (p. 180).

Litman fully recognizes that this is a radical proposal, but hopes that if we no longer define copyright in terms of reproduction, "we will have to rethink it completely" (p. 180). She also suggests that we bring copyright law back to its origins by reconfiguring copyright protection as an "exclusive right of commercial exploitation" (p. 180). Under this standard, infringement would consist of making money from someone else's work without permission. Noncommercial infringements would be outside the law's purview. This change would eliminate the 'vexing' and inconsequential legal problems caused by actions such as pirating copies of Windows 98. This proposal would also have the effect of "conforming the law more closely to popular expectations" (p. 181). Finally, a revised copyright statute must affirm the public's rights, especially its right to gain access to and use ideas, facts, information, and other public domain material that might be in protected works. According to Litman, "[t]hat affirmative right should include a limited privilege to circumvent any technological access controls for that purpose . . ." (p. 184). The public should also have a right to read publicly available works (a right now threatened by technological controls protecting a digital work) and a 'right to cite,' i.e., to refer to any copyrighted work without

authorization, even if this means linking to infringing material on the Web.

Litman would clearly like to take bold action to undermine the enclosure movement. Towards the conclusion of the book she posits a benevolent despot with the goal of promoting new technology. That despot, she surmises, would welcome ground-breaking technologies like Napster. The despot might even propose "a temporary period during which the Internet would be a copyright free zone" (p. 174) so that copyright owners do not obstruct the spiraling path of technological innovation. Litman is clearly amenable to technologies like Napster and to making cyberspace a place where copyright restrictions have little impact. In her view, technological innovation would thrive under these conditions and the public would reap substantial benefits.

Lessig, Litman, and a new narrative for intellectual property

It is difficult to contest many of the well reasoned arguments found in both of these books. Beyond any doubt, the tendency to overprotect the Net is pronounced and disturbing. The apparent breadth of the DMCA, the proliferation of cyberpatents, and most especially the Copyright Term Extension Act, all confirm this alarming trend. As a consequence, restrictions and proprietary controls are too broad and so the public interest and the public domain suffers. And the more the public domain is constrained, the greater the adverse impact on future creativity. In the long run the cost to innovation may be substantial. These controls may solve the free rider problem with greater efficacy but at what expense?

While these books differ to some extent in the topics covered and in the solutions proposed to cure ill-conceived property controls, they have much in common. Both authors target the judiciary and policy makers for overvaluing private intellectual property rights at the expense of the intellectual commons. Both are uncomfortable with the intellectual property owner's power to exclude and wary of how the metaphor of 'control' has insinuated itself more forcefully into discourse about intellectual property protection and ownership. Both argue that we must reassess our notion of the commons and reinvigorate our fidelity to protecting the rights of new creators to borrow from their cultural heritage. Both are convinced that we must rethink our unwavering commitment to private intellectual property ownership in a digital world. And both are pessimistic that change is likely, thanks in part to the dominant economic powers of content providers who are content with the status quo.

Of course, Lessig and Litman are not alone in their lament. Indeed, their writings are part of a larger intellectual movement that regards the traditional conception of intellectual property as stifling and antiquated. Neither of these books becomes polemical about the topic of private intellectual property but one senses unease about propertizing intangibles. There is a grudging respect for copyright and other legal protections but a presumption that the world would be a better place if we could somehow get by without them.

This antagonism toward intellectual property in academic circles these days continues to intensify especially in light of the government's 'copyright grab' (Samuelson 1996). It appears to be attributable to many factors including the potent influence of post-modern theory, legitimate worries about the entertainment industry's tightening grip on its content, and concerns about the negative impact on third world countries.

The problem of intellectual property and developing countries is complex but Steidlmeier (1993) captures the gist of the complaint: "developing countries argue that individual claims on intellectual property are subordinated to more fundamental claims of social well-being." He notes that these countries also reject the so-called 'trickle down theory,' that is, the notion that technological developments will eventually be transferred to others despite a strong system of protections. Also, these countries do not give much weight to the utilitarian arguments that have traditionally under girded these rights.

Post-modernists are highly suspicious about the possibility of authorship. They contend that the notion of authorship is 'socially constructed' and that we must be wary of associating a creative work with a discrete, individual 'author.' Despite the author's labor, that work is not a product of this one individual but of 'communal forces' which have contributed their ideas and thoughts to the author's work. According to Jaszi (1992), "the persistence of the notion of 'authorship' in American copyright law makes it difficult for any new legal synthesis . . . to emerge." Halbert (1999) argues that our notions of 'literary work' and the 'author function' must be deconstructed: "[t]he author is so embedded in our thought processes that we look to the author as owner instead of looking behind the role of authorship to the production of discourses in society." Boyle (1996) has also criticized our overly romanticized notion of authorship. According to Boyle, the 'authorship myth' can yield counterproductive effects by granting rights to established authors that inhibit the free speech of new authors.

Following literary critics such as Foucault, Rotstein (1992) argues that we must regard creative works as dynamic texts and avoid the temptation of reification.

Once we get beyond our image of the creative work as a static entity and depropertize these texts, they will begin to assume a more public character. If this general line of reasoning has merit, it will depose the author's authority over the work and undermine otherwise viable rationales for authorial entitlement based on moral arguments such as Locke's labor desert theory.

We must be careful, however, about radically revising the concept of authorship and disengaging the concept of property from intellectual and creative endeavors. If these ideas gain greater ascendancy, we will end up diluting intellectual property laws to the detriment of innovation. Lessig is right. The model of perfect control *is* unacceptable – the right to property like almost any right is not absolute. But we must ensure that the control is commensurate with the person's labor and effort and that the proper incentives are in place.

Further, while it may be the case that our notion of authorship is overly romanticized and too narrow, it is not a sensible idea to abandon the notion that most texts have been constructed by some identifiable efficient cause, that is, by a single human agent or group of human agents, who might in fact borrow heavily from the works of others. If the post-modern deconstruction of the author is taken to its logical conclusion, it can lead to many ambiguities and inconsistencies. If there is no such discrete or individuated author, if all creation is communal, how do we hold anyone accountable for egregious acts of plagiarism or for a tract full of defamatory remarks? Couldn't the non-author say this work (or dynamic text) isn't really hers but belongs to that amorphous community which contributed input? Are we prepared for the social consequences if authors have no ownership or accountability?

Also, what happens to the common-sense idea of originality? When a product originates in an agent's labor, its efficient cause is that agent. According to Becker (1993), that labor can be non-original so that the 'source' of the product lies elsewhere (i.e., the laborer merely replicates something, copies a manuscript, etc.). Or it can be original. But if labor is original that labor is the source of the product. When Mozart composed Don Giovanni he was not an intermediate link; if he were, "every note, voicing, key change or tempo would have to be explained by events 'outside' Mozart" (Becker 1993). This account does not suggest that there were no influences or tendencies outside the composer, but those influences do not fully explain his creative activity. Making these subtle distinctions is important for the assignment of property rights, but if authorship disappears so does an intelligible notion of originality.

Even if critics find an accommodating way to deal with this post-modern author problem, they still cite many other reasons to devalue intellectual property such as those mentioned in both of these books. Is it time for a new narrative about intellectual property, time to reconceptualize these ideas and abandon dangerous metaphors like 'control'? But how should we justify the granting of a property right? Are property rights "natural" or are they merely a result of a tentative quid pro quo between the author and society as Litman suggests?

Neither of these books attempts to directly address these larger philosophical issues. Perhaps this is understandable, given their intended audience, but this omission could lead to some confusion. It seems reasonable to infer that neither Lessig nor Litman would support arguments that intellectual property is a natural right. In this book and in previous writings Lessig (1999b) advocates a utilitarian rationale, describing "the concept of a restricted copyright – one that protects a copyrighted work to the extent necessary to induce creation, but no more." But there is some rhetoric (especially in Litman's book) intimating a certain level of discomfort not just with the expanding scope of intellectual property rights but with the concept of private ownership of intellectual objects. What do Lessig and Litman really make of the conventional rationales that justify intellectual property, especially those that are not based on utilitarian thinking? And do those rationales continue to have any resonance in the legal community?

In order to answer the deeper questions suggested by these books we must examine those theories traditionally invoked to justify intellectual property rights. To a great extent, the validity of those theories will determine whether we should support 'thick' protection or 'thin' protection (Vaidhyanathan 2001). It would certainly seem that determining the scope of intellectual property rights depends to some extent on how we justify those rights. These normative paradigms are not without flaws but they help shape the scope of property protection as well as provide an evocative vocabulary of moral assessment.

The normative foundations of intellectual property

Copyright jurisprudence has intellectual underpinnings in economic theory and in natural law approaches. The two most commonly cited theories for justifying property rights are the utility argument and Locke's labor desert theory. A third theory, arguing that property rights are essential for proper personal expression, is more common in European circles. Space constraints prevent us from exploring

that particular framework in any depth, but it does seem particularly apt for intellectual property. As human beings freely externalize their will in various things such as novels, works of art, or poetry, they create property to which they are entitled because those intellectual products are a manifestation of their personality or selfhood. Of course, not all types of intellectual property entail a great deal of personality. But the more creative and uniquely personal is one's intellectual work, the greater one's 'personality stake' (Hughes 1997) in that particular work and the more important the need for some type of ownership right in order to safeguard that work's integrity. This theory also has intellectual merit and perhaps it too confirms our conclusion that an intellectual property right is more than a quid pro quo.

Justifying property rights according to a utilitarian calculus is the norm among many legal scholars. As we have observed, Lessig repeatedly invokes utilitarian arguments, at least implicitly, throughout this book. Neither author, however, pays much attention to other justifications for intellectual property such as those predicated upon a labor-desert view.

Arguably, if the only plausible normative justification of property rights is purely utilitarian, the adjustments in the intellectual property regime advocated by both authors might be more tenable. On the other hand, if we accept some version of the Lockean perspective that individuals have a natural entitlement to control the results of their labor, the proposed loosening of controls we find discussed in these books becomes more difficult to justify.

Let us first consider the utilitarian argument, which relies on simple economics to make a normative case for intellectual property protection. The core elements of this theory can be stated quite concisely: we should provide enough intellectual property protection to serve as an inducement for future innovation, since innovation benefits society. Intellectual property rights therefore are based primarily on economic efficiency.

Following Moore (2001) and others who have explicated this theory, it can be summarized as follows:

(i) Society should adopt legal regimes or institutions if and only if they are expected to yield the optimization of aggregate social welfare.
(ii) A legal regime that provides authors, creators, and inventors limited rights or control over their productions is expected to act as an incentive for the creation of intellectual works.
(iii) Stimulating the production and creation of intellectual works contributes to the maximization of aggregate welfare.
(iv) Therefore, a legal regime for intellectual property protection should be adopted.

Those who embrace utilitarianism usually maintain that authors and inventors do not have some sort of natural right to their intellectual products. But they concede that in order to induce creativity legal protection must be provided. It is unlikely that Disney will spend $100 million to make a movie unless it can control that movie's distribution and reproduction. Nor will a pharmaceutical company invest $500 million in a new product to cure AIDS without the promise of a prolonged patent.

These incentive-based justifications have intuitive appeal, but in practice it is not so easy to determine which intellectual property regime will maximize society's wealth. As Yen (1990) points out, "there is simply no certainty that wealth maximization is capable of recommending a preferred course of action." This does not mean the utility theory is worthless, but it is indeterminate and incomplete. Some would argue that even if incentive-based arguments had more validity, the utility principle can provide only a thin justification of property rights. When rights are contingent solely on maximizing the social good those rights tend to be tentative with their scope subject to recalibration for prudential reasons. Also, according to Burk (1999), "It is by no means clear that a property right which appropriates all the value of the work to the creator is necessary to induce creation of the work; presumably, the creator would be prompted to create if he received a right that ensured he could at least cover his costs."

Given these shortcomings of the incentive justification, a more secure grounding of property rights must go beyond utilitarian calculus and economic analysis. The Anglo-American tradition has long recognized the validity of the Lockean perspective – we assign property rights not only to incentivize creators but also to reward them for their efforts.

Locke's theory offers the promise of a more substantial foundation for intellectual property rights. According to Locke, people have a natural right or entitlement to the fruits of their labor. If someone takes common, unusable land and through the sweat of the brow 'mixes' his labor with that land so that it becomes arable farm land, that person deserves a property right. One's labor is an extension of one's personality and "when the object appropriated has been included within [an individual's] sphere [of personality], it will be an injury to the possessor to deprive him of it" (Olivecrona 1974). Labor is appropriative then precisely because it involves this 'infusion of personality' (Olivecrona 1974), and also because it transforms

what was in the commons into something more useful and valuable.

According to Becker (1977), "The root idea of the labor theory is that people are entitled to hold, as property, whatever they produce by their own initiative, intelligence, and industry." Other individuals have no prima facie moral claim to the "benefit of another's pains" (Locke 1952), unless other moral issues or claims are at stake.

It would certainly seem that with some qualifications, Locke's theory should apply to intellectual as well as physical labor. As Easterbrook (1990) remarks, "Intellectual property is no less the fruit of one's labor than is physical property." Thus, a person has a legitimate claim to ownership in works to the extent that they have been created by that person's labor. If it is the case that people deserve a property right in tangible objects through their labor, they why shouldn't they deserve property in intellectual objects which they have created?

Even the US Supreme Court (*Mazer v. Stein* 1954) has recognized the validity of this argument: "sacrificial days devoted to ... creative activities deserve rewards commensurate with the services rendered." More recently, Justice O'Connor justified limitations on fair use with a similar argument: "The rights conferred by copyright are designed to assure contributors to the store of knowledge a fair return for their labors" (*Harper & Row v. Nation Enterprises* 1985).

If Locke's arguments apply to intellectual labor as well as physical labor, the result is a cogent grounding for intellectual property rights that takes precedence over utilitarian considerations. Locke (1952), however, stipulated an important proviso that has been the subject of much commentary and controversy: one can acquire such a property right only as long as one leaves "enough, and as good" left for others. As long as this proviso is satisfied, the appropriation is of "prejudice to no man." Locke recognized that there might be conflicts between the claims of the laborer and the public's entitlement to use the commons. According to Gordon (1993), "When the common is threatened by a laborer's claim to property, it seems right that the laborer cannot use the moral law to restrain the common's use."

Moore (2001) construes this proviso as equivalent to weak-Pareto superiority in that it permits individuals to improve themselves as long as no one else's condition is worsened. According to Cohen (1995), "One state of the world, S_1, is Pareto-superior to another, S_2, if and only if no one is worse-off in S_1 than in S_2, and at least one person is better-off in S_1 than in S_2." For intellectual property this would imply that one can appropriate intellectual objects held in common or ideas yet to be discovered so long as no one else is deprived or harmed by this appropriation. Moore (2001) concludes that "if the acquisition of an intangible work satisfies a Paretian-based proviso, then the acquisition and exclusion are justified." In other words, Locke's theory supports a straightforward 'no harm' principle: appropriative labor that does not harm another should yield an intellectual property right.

It is logical to assume that in the realm of ideas and abstractions the use of those ideas in a novel and imaginative way usually does not worsen anyone else's situation. When Tolkien wrote *Lord of the Rings* he did not make anyone else worse off as he constructed (and appropriated) this epic adventure. Instead, this creative tale has delighted and thrilled generations of readers. Tolkien, inspired by the Bible, mythology, and Middle English folk lore, borrowed from various literary traditions, but others are free to appropriate ideas from those same traditions, as long as they do not copy his exact expression.

Or let's assume that someone has a novel idea for an invention such as a radically new method for brewing coffee. If we grant this individual a property right through a patent, no one else's condition is worsened. There is one less unappropriated and unimagined idea for inventors to conjure up, but what does that matter when the sum of those ideas is virtually infinite? The creation of intellectual property, unlike the taking of physical property, is not a zero-sum game where one laborer's appropriation is another's deprivation.

We must bear in mind, therefore, that the nonrivalrous nature of information and ideas works both ways: we may need less control but also when I 'enclose' a hitherto unimagined, concrete idea I do not really deplete the number of other ideas that can be thought of and created. If my creative project borrows from or builds upon abstract ideas in the public domain, others can still use those ideas, since they are publicly available. The frontier of intellectual objects and ideas is virtually inexhaustible. Thus, most creative works leave "enough, and as good" for others, and therefore they are eligible to be classified as property according to Locke's theory.

At the same time, while natural law justifies the assignment of property rights, it "suggests limits on the extent of those assignments" (Yen 1990). One such limit us based on the idea/expression dichotomy – we give copyright protection to concrete expression but not to abstract ideas. The enclosure of abstract ideas would prevent later creators from using those ideas and hence it would not satisfy the Lockean proviso. According to Yen (1990), "property extends only to things which are sufficiently concrete to be possessed." Similar justifications can be developed for other limitations on copyright protection such as fair use, limited term, and first sale.

Locke's theory continues to engender controversy and it too has certain flaws, but its main lines seem to be quite plausible, especially when the Lockean proviso is interpreted in terms of weak-Pareto superiority. If a creative work is the result of one's labor and ingenuity, and if the bestowal of a property right does not compromise the capability of others to elicit ideas and abstractions from their cultural heritage (i.e., the intellectual commons), why shouldn't the creator be granted a limited property right over his or her work? People *deserve* compensation for creative activities that add value, and the most appropriate compensation is the right to take temporary ownership of that creation so that the compensation received is proportionate to the value placed on the creative work by society. We conclude then that the laborer "who achieves property in what she takes or makes from the common" (Gordon 1993), has a natural claim right to exclude others from use of the property, and those others in turn have a prima facie duty to respect that right.

Some might object that the case has still not been made for a limited property right. Maybe a person deserves a reward of some sort for his or her labor, but why should that reward take the form of a property right? To own something, to have a property right in that thing, means that one has a claim on the liberties of others, since a property right is most fundamentally a right to exclude. Why does the laborer deserve such a right? Becker (1993) offers several justifications on behalf of the desert-for-labor argument. The most compelling is based on the idea of reciprocity: "A person who produces a public benefit by way of morally permissible (but not required) actions, deserves to receive a fitting and proportional benefit from the public for doing so." One must further demonstrate that a property right is the most 'fitting and proportional' return for the benefit created. Becker (1993) argues, however, that the laborer should be the one to determine what is a 'fitting' reward and if the laborer insists on full ownership rights, this is a "prima facie reason for concluding that there are no fitting alternatives." And to meet the second criteria of proportionality, the award of this property right must not be a disproportionate sacrifice for others.

Unfortunately, we cannot offer a more substantial defense of Locke here, but hopefully we have at least demonstrated that the theory has intellectual merit. It has garnered strong support among many thoughtful scholars (Child 1997; Becker 1977; Moore 2001; Yen 1990). Moreover, the argument has resonated loudly in legal circles, manifesting itself in US Supreme Court rulings supportive of strong intellectual property rights. And like utilitarian reasoning it has a certain intelligible (versus emotional) appeal: those individuals who labor to improve the human condition by creating intellectual and artistic works should have a prima facie property right, that is, a right to exercise limited control over their productions.

Before concluding this treatment of Locke we should underscore that the embrace of the natural law approach for justifying property rights does not imply imminent doom for the commons. One can be a Lockean but still agree with Litman and Lessig about the moral imperative to preserve the integrity of the commons. And the critical importance of a bountiful commons in the creative process should not be underestimated.

The frontiers of intellectual property, which include undiscovered and original ideas, are expansive, but most creators need some help and inspiration from the past. Bernstein's brilliantly creative *West Side Story* would not have been possible without the inspiration of Shakespeare's *Romeo and Juliet*. Philosophers like Nietzsche were keenly aware of this dependence upon the past, also pointing out the salutary effects of recreating or shedding new light on society's past accomplishments. For Nietzsche, our past cultural heritage is an essential correlate of the creative will. In our creative efforts we retrieve the past through ingenious reinterpretations that create a new future. "The future promised and hallowed in the past" (die Zukunft in der Vergangenheit verheißen und geweiht) is the ultimate meaning of his misunderstood notion of 'eternal return' (Nietzsche 1966).

This cultural heritage forms a significant portion of what has become known as the public domain. Litman (1990) defines the public domain as "a commons that includes those aspects of copyrighted works which copyright does not protect." The public domain includes ideas, concepts, theories, scientific or research methods, scientific principles, mathematical algorithms, laws of nature, words, names, symbols, and so on. It also includes works of literature, music, art, some of which may have once been protected by a copyright. This vast domain is clearly enhanced when new works can be added, but it can be depleted if intellectual property laws are too overinclusive.

This duty to protect that past heritage and enhance the public domain is in tension with the duty to protect individual intellectual property as a reward for creative activity. Locke's proviso along with the recognition that "the individual who created this property did so against a social background" (Child 1997) give prudent limitations on property rights their moral force. We have already discussed the necessity of precluding abstract ideas from being appropriated. Another such limit is the need for a reasonable term on copyright or patent protections. In the United States, copyright protection for life of the author plus a period

of 50 years seems quite adequate. The additional 20 years mandated by the Copyright Term Extension Act is excessive – the author and his or her heirs have had a long period of control and little is to be gained in the way of incentives by adding on retrospectively to the copyright term.

Thus the Lockean proviso unequivocally imposes natural or indigenous limits on intellectual property rights and prevents the assignment of unfettered rights that could harm the public's right to a robust commons. At the same time, the validity of the Lockean desert-for-labor argument adds moral weight to the pragmatic utilitarian perspective that is based on economic efficiency.

It would be presumptuous, of course, to argue that this labor-desert theory should be the sole basis for policy prescriptions. Clearly, there are many other pertinent factors such as the imperative to maximize aggregate welfare that must also be considered. Nonetheless, if this plausible perspective is not factored into policy decisions, "we will have abandoned important elements of fairness and justice in this corner of the legal system" (Becker 1993).

What are the broad implications of these conclusions? If we accept that a limited ownership stake in intellectual property is a natural entitlement, we cannot sacrifice a property right merely for marginal gains in social utility or suspend that right for the sole purpose of giving new markets a chance to blossom. Litman, for example, calls for a 'copyright shelter' in certain circumstances, since this will allow "new players to enter the game" (p. 173) so that new media might have a chance to flourish. One must be highly circumspect in pursuing such a course of action unless a competing moral claim is at stake or the compromising of intellectual property rights is truly necessary as a means of advancing the common good of justice. While property rights are prima facie and must be properly balanced with other rights (such as free speech), they must generally be enforced without regard for consequences. If the labor-desert theory is fundamentally correct, then authors deserve secure intellectual property rights, rights that are indefeasible in the face of marginal social utility gains or other efficiencies.

Evaluating Lessig and Litman: free riders and information control

Now that we have clarified these theoretical considerations and appreciate that an intellectual property right has a grounding in natural law reasoning, we are in a better position to assess the works of Litman and Lessig, focusing on some of their normative judgments and policy recommendations. We have concluded that while property rights are limited they are not expendable; a claim right must be secure and immune from being reduced to a relative factor in a cost/benefit analysis. Moreover, the Lockean perspective must be factored into policy considerations if justice is to be served. This viewpoint, of course, does not necessarily imply that the recommendations proposed by Lessig and Litman are unworthy of serious consideration.

Even if we accept a 'thicker' conception of intellectual property, the formulation of sound property policy, like many other normative matters, is about balance and measure. In Aristotle's (1941) terms the goal is to 'hit the mark' (or the mean of virtue) between defect (*elleipsis*) and excess (*hyperbole*). The challenge is to fine tune intellectual property laws so that they provide enough protection to induce innovation and provide reasonable rewards for the investment of labor while not harming the commons or infringing on other rights (such as free speech).

Lessig and Litman have made a cogent case that recent laws reflect an imbalance by being overinclusive in a way that creates some peril for the integrity of the commons. We generally agree with this overall assessment. Nonetheless, in my estimation, some of their specific policy recommendations or prescriptions to correct this imbalance go too far. We appreciate the need to maintain the Internet as an innovation commons and to support a robust public domain, but some of their proposals would swing the pendulum too far back in the direction of underprotection. Let us consider several examples beginning with the revealing views expressed in both books about Napster.

Both Lessig and Litman express solicitude about the treatment of Napster. As they recount the story, the copyright owners are the villains – by "demanding the right to control the sharing of their content" (Lessig p. 196), they stifle a promising and valuable technology. Recall the main facts of the Napster case (Spinello 2002). Napster operates by allowing a Napster user to access the systems of other Napster users for a particular piece of music. Once that music is located, it can be downloaded in MP3 format and stored on the user's hard drive. Napster had hoped that its status as an intermediary would give it immunity from the legal problems associated with the breaking of copyright laws. Napster does not store or 'cache' any digital music files on its own servers. Nonetheless, A & M Records and the Recording Industry Association of America sued the company for vicarious and contributory copyright infringement, demanding $100,000 each time a song was copied by a Napster user. According to Lessig and Litman, this hasty Napster litigation was tantamount to a brutal attack on

a promising format for content distribution. As a result, a critical technological innovation was disrupted.

But the Ninth Circuit made some careful distinctions, insisting that they were not trying to suppress peer-to-peer or file-sharing technology per se. According to the Court, "We are compelled to make a clear distinction between the architecture of the Napster system and Napster's conduct in relation to the operational capacity of the system" (*A&M Records, Inc. v. Napster* 2001). The Court was not seeking to disable peer-to-peer technology, but it was trying to curb Napster's exploitation of that technology. Litman claims that Napster had 'plausible arguments' that should have insulated it from liability for contributory infringement (p. 159). For example, "[Napster] shouldn't be liable because the file transfers it facilitated were completely legal – individual consumers were making personal noncommercial copies of music, ... [permitted by] fair use" (p. 159). But while one might be able to make the case that it's 'fair use' for individual Napster users to engage in some of this personal copying, it is probably unacceptable for an intermediary like Napster to make money through facilitating that copying. According to the Judge Patel, "Napster is not an Internet service provider that acts as a mere conduit for the transfer of files. Rather, it offers search and directory functions specifically designed to allow users to locate music, the majority of which is copyrighted" (*A&M Records, Inc. v. Napster* 2000).

Also, for many legal experts the copying executed by Napster users does not constitute fair use. Placing a large quantity of music files on one's hard drive for many others to download seems to be direct infringement since the user's hard drive becomes a distribution vehicle for copyrighted content. Even some of those who wrote supportive briefs for Napster were not prepared to argue that the repeated copying of copyrighted materials by Napster users did not amount to direct infringement. At the very least this activity is inconsistent with the aspirations and spirit of the copyright law.

Were copyright holders wrong to pursue this obstructive course of action? Why should they sit by idly as this piracy goes on? A secure intellectual property right demands that unauthorized copying having a probable material effect on the copyright holder should be disabled whenever possible; it demands that right holders not be obliged to allow their works to become vulnerable to new technologies that enable widespread copying. Copyright holders should not shun these new digital technologies, but they should insist that these innovations be deployed responsibly, in a way that seeks to respect their rights. The need to exercise control in this context becomes more acute if digital networks will be the primary distribution channel for content in the future. If so, as Ginsburg (2001) observes, "control over access to digitally distributed works will become the principal way in which exclusive rights are exercised."

Although Lessig is critical of the Napster decision, he recognizes that Napster is a 'hard case,' and he proposes a scheme of compulsory licensing. 'Compensation without control' might fairly resolve some of these issues (p. 201). But is this solution a fair and workable alternative to a property rights regime? Compulsory licensing means that liability rules are substituted for property rules, but liability rules can have significant human and creative costs. As Gordon and Postbrief (1998) note, this scheme "might change the nature of the artistic professions and the nature and quality of the works produced if artists lost their right to control copying, and retained only a right to be paid." If we concede that a property right is a natural entitlement, it is debatable whether creators should be compelled to give up that exclusive right for a compulsory licensing regime in order to advance a new distribution technology such as Napster. This is especially the case because it may still be possible to 'tame' this technology "into copyright friendliness" (Ginsburg 2001).

Also, a compulsory licensing scheme would be quite difficult to implement. Is it possible, for example, to equitably distribute collected license fees to copyright owners especially when works are disseminated by means of file sharing on peer-to-peer networks? And if some type of tracking system were developed, privacy rights could be endangered. But even if we can work out such implementation issues why will consumers suddenly start paying for music and other goods when they can get these things for free? Thanks in part to the contagious bias against intellectual property rights many students believe that those rights are an anachronism and that music and other digital content in cyberspace should be free. One of the underlying reasons behind the legislation against Napster was the apprehension that this attitude would soon predominate. In its main brief the Recording Industry Association of America summed up the problem quite clearly: "If the perception of music as a free good becomes pervasive, it may be difficult to reverse" (Plaintiff's Brief 2000).

Litman's proposal that cyberspace should temporarily become a copyright free zone also seems unreasonable particularly if one accepts a natural rights perspective. Since the borders between the physical and virtual worlds are so porous the declaration of cyberspace as a copyright free zone could be a lethal blow to any sort of viable copyright protection. Books, music, videos distributed in the physical world could

be digitized and uploaded to cyberspace where they would be free for the taking. Such a policy would have the effect of forcing authors to surrender the control over the distribution of their works once those works became available in cyberspace. One might be able to make the case that such a policy is welfare-enhancing because it stimulates new means of content dissemination or other innovations in cyberspace. But if we accept the premise that intellectual property rights are natural and not instrumental, it will surely be quite difficult to justify that policy because of the harm inflicted on those who hold these rights. The public has a right to a strong public domain that fosters creativity, but it does not have a *right* to free intellectual goods distributed in cyberspace. The Internet represents a new means of dissemination of intellectual products, but authors of those products retain their prima facie right to control that dissemination within the parameters of fair use, limited term, and first sale. Loss of that control, even on a temporary basis, is harmful to authors who will not be able to get the just reward they deserve for their labor through the sale of their works.

Both authors make a number of policy recommendations that center on loosening copyright protection. Lessig, for example, proposes an abbreviated copyright term for software: an initial 5 year term renewable once. Furthermore, that protection would only be granted under the condition that the source code is made publicly available at the end of this 10 year period. While a 95 year copyright is undoubtedly too long, doesn't a mere 10 year term miss the mark also? Is there any evidence that this arbitrary 10 year term will provide enough of an incentive for software vendors to make a major investment in substantial software projects? Software projects are expensive and labor intensive, requiring enormous investments of manpower devoted to coding and debugging. Shouldn't software vendors be entitled to a longer period of protection in order to better ensure that they can achieve a proportionate reward for that substantial investment? Aren't they also entitled to keep from the scrutiny of competitors the creative use of software algorithms embodied in source code that might be the source of some competitive advantage? From a purely Lockean perspective, it would seem that these vendors are entitled to the reward of property right as a matter of justice because of the immense labor involved in these projects and because they have not violated the proviso, since the abstract ideas underlying software are publicly available and readily accessible in copious technical literature.

Finally, it is worth critiquing Litman's set of broad user rights such as the 'right to cite,' which includes the right to hyperlink even to sites that might contain infringing content. She is concerned because of "lawsuits claiming that linking to infringing works [is] itself piracy" (p. 183). In our estimation, however, an unqualified right to hyperlink to sites that host infringing works seems go too far. Litman analogizes the hyperlink to a reference or citation, and many of her colleagues have little problem with this assessment. According to Burk (1998), for example, "Providing a hypertext reference is largely the equivalent of providing a citation in a reference or bibliography." But isn't such an analogy too simplistic? Hyperlinks are better construed as "interactive coordinates that actively help users to reach content but do not distribute the content itself" (Dogan 2002). There is a big difference between referencing the location of infringing material in a paper or article and providing the reader with the direct means and opportunity to access that material immediately.

I would admit that not all hyperlinks to infringing material are problematic, but the context and the circumstances should matter a great deal. Under certain conditions the linker's activity will rightly meet the standards for contributory and vicarious liability. For instance, what if someone collects direct links to infringing material in a central location and receives financial benefits from operating this web site? Wouldn't such opportunistic hyperlinking have a "stifling effect on copyright's incentives" (Dogan 2002) and thwart reward (for labor) possibilities? It would certainly seem that any right to cite that incorporates hyperlinking must be more nuanced and qualified or it will make mockery of true intellectual property rights.

We could go on but my main criticism of these two works should be evident: both authors accurately describe the overinclusiveness of recent copyright legislation but some of their solutions do not take into account the real nature of an intellectual property right. Property rights should not become expendable or subject to excessive impairment just for the sake of technological innovation. We argue instead that while balance and a sense of measure are extremely important, a true intellectual property right should have the security that attaches to all natural rights.

Concluding remarks

In this essay we have proposed and discussed an ensemble of inter-related questions about the proper nature and scope of intellectual property protection. In trying to discern the antipathy to intellectual property manifest in recent anti-property discourse, we have explored the deconstruction of authorial entitlement for lack of an author. But an artistic 'work' implies a 'worker' and some creative effort. How can we

continue to make sense of concepts like 'creativity' or 'originality,' where artistic truth comes forth with new freshness, without recognizing some irreducible role for the author? How do we differentiate a Mozart or a VanGogh from the ordinary artisan? To be sure, the author depends upon the bounty of the commons, but at the very least gathers the discordant elements there into a single focus that becomes his or her creative project.

We have also probed the meaning of the labor desert theory and concluded that this theory has merit and that a copyright or patent is a vindication of the intimate connection between an individual and the fruits of her labor. The worker deserves credit and a fitting reward for her creative project and the most fitting reward is assignment of a property right so long as that assignment does not impair the intellectual commons for future creators. As a result, a 'copyright' is a natural right, predicated on something far more secure than the norm of social efficiency. We have argued that this natural rights perspective should not be discounted when intellectual property rights policy is being formulated in order to ensure fairness. We have also shown that a 'natural' property right is by no means absolute since it must be balanced against other rights such as the right to an unimpaired commons. According to this prescient judgment in *Wheaton v. Peters* (1834), "That every man is entitled to the fruits of his own labor must be admitted; but he can enjoy them only . . . under the rules of property which regulate society, and which define the rights of things in general." Accordingly, we restrict copyright protection to a concrete expression (rather than abstract ideas) and we assign a limited term in order to protect the public domain.

Thus, while Lockean theory confirms the validity of strong intellectual property rights, it is also sophisticated enough to support the need for balance through its proviso stipulating that appropriative labor must leave "enough, and as good" for others. We have presented a tenable interpretation of that proviso and attempted to illustrate that many creative and original works do not deplete the commons. Even a confirmed Lockean must accept the need for balance, and so intellectual property laws must aim at the Aristotelian mean between excess (overprotection) and defect (underprotection). Too much control for too long a period will bring marginal gains to creators while causing harm to the creative process. Too little control or underinclusive protection will not give authors what they justly deserve for their creative efforts.

Aristotle (1941) remarks that when seeking the elusive mean it is possible "to fail (*hamartanein*) in many ways;" hence, "to miss the mark [is] easy, to hit it difficult." Lessig and Litman have rendered a great service in these two books by citing 'many ways' of failure discernible in recent government legislation. Patents for simple business methods, the superfluous Copyright Term Extension Act, and many other examples cited in both books are ample evidence of how the government has erred by overprotecting intellectual property. On the other hand, we argue that at least some of the prescriptions of Lessig and Litman may err in the other direction. Copyright holders should not be required to cede their exclusive control merely for the sake of technological innovations, especially when it is possible to make those technologies 'copyright friendly.' And it is simply imprudent to declare that cyberspace should be a copyright free zone. Even if this decision were welfare enhancing, it erroneously assumes that intellectual property rights are expendable for modest social gains.

The enforcement of balanced property rights might be a problem for certain technologies such as Napster, but it should not imply that the character of the Internet needs to change dramatically. If the Internet's protocols such as TCP/IP remain open at the code level, responsible innovation on the Internet can still flourish. We can all agree that the Internet has been a source of extraordinary innovation and exciting growth and it would be tragic if the Internet's creative spirit were prematurely extinguished. Thus, we should strive to support the Internet as an innovation commons as long as reasonable property rights (and other human rights) are not trampled in the process. We agree with Lessig that *perfect* private control is unacceptable, but the polar opposite of feeble or negligible private controls is equally unacceptable.

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