

CRYSTALS IN THE PUBLIC DOMAIN

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Abstract: The law increasingly treats copyright as if it were any other form of property, and numerous writers decry this trend. In particular, scholars who express solicitude for the public domain fear that the "propertization" of copyright threatens an inevitable accretion of private rights in information at the expense of the public domain. This Article questions this conventional view, arguing that the propertization of copyright has unappreciated advantages for users of public information. The conventional view relies on an overly narrow view of what propertization means. The treatment of copyright as a form of property generally entails not only reduction of entitlements to private ownership, but also the bounding of those entitlements with clearly demarcated, or "crystalline" borders. Although many writers prefer "muddy" entitlements that create fluidity regarding the extent of the public domain, this Article argues instead that it is this very fluidity that is at fault for excessive accretion of private rights in information. Uncertainty about the extent of public entitlements in information allows well-capitalized private actors to lay claim to resources whose public/private status is at all ambiguous, and then deter the public's claims through threats of litigation. By contrast, a public domain characterized by crystalline rule structures would benefit users, as well as owners, by allowing them to better comprehend the extent of their entitlements and thus to exploit common resources without fear of suit. Three examples illustrate how copyright law could be reformed to create user-friendly crystalline entitlement structures. The Article concludes by situating the propertization of copyright law, and this critique of the dominant narrative of that trend, in the context of current debates in property law.

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INTRODUCTION

Every great story has a villain, and in the story told by enthusiasts of the public domain, that villain is property. Most intellectual property commentators warn that the enclosure of the public domain represents a major crisis facing both the law of ideas and American culture more generally.¹ And this enclosure, according to the dominant narrative, goes hand-in-hand with the application of rules and theories developed to govern tangible resources like land and chattels to intangible resources like ideas—the “propertyization” of copyright.² Larry Lessig, for example, suggests that viewing information through the lens of property threatens to create a “pay per use” culture, and thereby risks locking up the stuff that lies at the very heart of creative processes.³ Concern for the public domain seems to necessarily translate into resistance to using the longstanding rules or rhetoric of physical property when talking about its contemporary, incorporeal counterpart.⁴

¹ See, e.g., James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain*, LAW & CONTEMP. PROBS., Winter/Spring 2003, at 33, 37–40 (describing the increasing trend toward creating private rights in information as a “second enclosure movement”); cf. Henry E. Smith, *Intellectual Property as Property: Delineating Entitlements in Information*, 116 YALE L.J. 1742, 1744 (2007) (“At the core of controversies over the correct scope of intellectual property lie grave doubts about whether intellectual property is property.”).

² See Michael A. Carrier, *Cabining Intellectual Property Through a Property Paradigm*, 54 DUKE L.J. 1, 5 (2004) (lamenting the “propertyization” of IP as an “irreversible” trend that “sinks its tentacles further into public and corporate consciousness (as well as the IP laws) with each passing day”); see also, e.g., Olufunmilayo Arewa, *The Freedom to Copy: Copyright, Creation, and Context*, 41 U.C. DAVIS L. REV. 477, 504 (2007) (discussing the tendency of propertyization narratives of intellectual property to diminish authorship based on creative appropriation); Mark A. Lemley, *Romantic Authorship and the Rhetoric of Property*, 75 TEX. L. REV. 873, 902 (1996) (reviewing JAMES BOYLE, SOFTWARE, SHAMANS, AND SPLEENS (1996)) (observing that the public character of information goods “seems to suggest that propertyization is a uniquely bad idea, precisely because the consumption of that good is ‘nonrivalrous’”); cf. Pamela Samuelson, *Information as Property: Do Ruckelshaus and Carpenter Signal a Changing Direction in Intellectual Property Law?*, 38 CALIF. U. L. REV. 365, 398 (1989) (expressing concern in the patent setting about the development of a “more proprietarian and anti-dissemination attitude toward information than that which the law has previously displayed”). The idea of invoking property analogies to support an expansive vision of copyright protection is by no means a solely modern phenomenon. Justin Hughes, *Copyright and Incomplete Historiographies: Of Piracy, Propertyization, and Thomas Jefferson*, 79 S. CAL. L. REV. 993, 1008–42 (2006) (discussing the use of conceptions of property throughout the history of American intellectual property discourse).

³ Lawrence Lessig, *Re-Crafting a Public Domain*, 18 YALE J.L. & HUMAN. (SPECIAL ISSUE) 56, 66–67 (2006).

⁴ See, e.g., Arewa, *supra* note 2, at 504; Carrier, *supra* note 2, at 5. Not everyone shares this view. Writers who prefer a broader vision of copyright protection and tend to express solicitude for owners rather than users embrace the analogy between physical and intangible property, arguing that the two fields are essentially continuous. See, e.g., Frank H. Easterbrook, *Intellectual Property Is Still Property*, 13 HARV. J.L. & PUB. POL’Y 108, 118 (1990)

I seek to tell a different story about the public domain,⁵ one in which property plays a more complex role rather than the stereotypical villain. The inquiry begins with a question. Why does most copyright scholarship express skepticism about propertization? Or, to borrow Hanoch Dagan's phrasing, why do friends of the public domain resist property?⁶ The primary reason is that most writers take the "propertization" of intellectual property, and of copyright in particular, as an iteration of Demsetz' narrative of the evolution of property systems.⁷ Demsetz famously argued that as resources become more valuable, legal regimes governing those resources trend toward private property.⁸ So, too, when most commentators speak of copyright's increasing propertization, they refer to an accretion of private rights in works of author-

("[W]e should treat intellectual and physical property identically in the law . . ."); Richard A. Epstein, *Liberty Versus Property? Cracks in the Foundation of Property Law*, 42 SAN DIEGO L. REV. 1, 20-28 (2005); Trotter Hardy, *Not So Different: Tangible, Intangible, Digital, and Analog Works and Their Comparison for Copyright Purposes*, 26 U. DAYTON L. REV. 211, 213 (2001) ("For the purposes of intellectual property rules and regimes, there are no differences between intangible and tangible property . . ."); see also Peter S. Menell, *The Property Rights Movement's Embrace of Intellectual Property: True Love or Doomed Relationship?*, 34 ECOLOGY L.Q. 713, 741-54 (2007) (commenting on the property rights movement's embrace of intellectual property rights).

Still other writers resist the equation of intellectual property with traditional property for a different reason. They argue that intellectual property is a mere "privilege" that should not be equated with real and personal property because the latter categories have a longstanding, natural-rights character that is not shared by modern entitlements that are creatures of statute. See, e.g., Tom W. Bell, *Escape from Copyright: Market Success vs. Statutory Failure in the Protection of Expressive Works*, 69 U. CIN. L. REV. 741, 763-64 (2001) ("[B]y invoking government power a copyright owner can impose prior restraint, fines, imprisonment, and confiscation on those engaged in peaceful expression and the quiet enjoyment of physical property. By thus gagging our voices, tying our hands, and demolishing our presses, copyright law would violate the very rights that Locke defended.").

⁵ Throughout this Article, I use the term "public domain" rather than the more prevalent phrasing, "information commons." The frequent use of the term "information commons" to refer to the public domain strikes me as somewhat misleading, because commons were subject to limited private rights. Village greens in early modern England, for example, were subject to limited exclusion rights (villagers could enter but outsiders could not) and limited use rights (some greens could be used exclusively for grazing, others only for growing crops). The public domain is thus not really a "commons" but public property: a largely unregulated space to which all are welcome, subject to other legal restraints. See Carol Rose, *Romans, Roads, and Romantic Creators: Traditions of Public Property in the Information Age*, LAW & CONTEMP. PROBS., Winter/Spring 2003, at 89, 92-104 (contrasting Roman property law categories *res communes* with *res publicae* to illustrate the point).

⁶ Hanoch Dagan, *Property and the Public Domain*, 18 YALE J.L. & HUMAN. (SPECIAL ISSUE) 84, 84 (2006).

⁷ See, e.g., Arewa, *supra* note 2, at 504; Carrier, *supra* note 2, at 5.

⁸ See Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 350 (1967).

ship.⁹ As these private entitlements increase, the argument goes, less and less information is left for the public to use, and so the propertization of copyright causes a correlative reduction of the scope of the public domain.¹⁰

Yet this trend has other important valences for which the dominant narrative fails to account. For example, judges and policymakers often use metaphors and language drawn from real and personal property law when phrasing their opinions and public statements about intellectual property, raising the question whether it is problematic to discuss copyright using the rhetoric of physical property.¹¹ Also, regarding copyright entitlements from the perspective of a physical property paradigm necessarily requires reducing these entitlements (where possible) to clearly demarcated, individuated units—much like tracts of land, the elemental object in the field of real property. Property regimes, and property rules in particular, depend on clearly defined entitlements—“crystals,” to borrow Carol Rose’s felicitous phrasing.¹² Well-demarcated borders enable owners to determine the scope of their use privileges, ascertain whether their right to exclude has been violated, and specify the character of their ownership interest in trade.¹³ Nevertheless, much of the critique of propertization in intellectual property suggests that this move in the direction of imposing property-like boundaries on information entitlements threatens the public domain.¹⁴ This position suggests that it is optimal for entitlements in information to remain roughly defined by “muddy” outlines rather than well-demarcated boundaries that allow for individual tailoring and ex post determination.¹⁵ Many writers thus prefer that copyright rules remain with-

⁹ See Boyle, *supra* note 1, at 55–56 (expressing reservation about the trend toward cordoning off information goods with clearly defined borders because it facilitates the reduction of the public domain to private ownership); see also Arewa, *supra* note 2, at 504; Carrier, *supra* note 2, at 5.

¹⁰ See Carrier, *supra* note 2, at 5.

¹¹ In a related work in progress, I address this issue and suggest that the use of physical property metaphors when talking about intellectual property provides a positive strategy for preserving the public domain. David Fagundes, *Property Rhetoric and the Public Domain* (July 23, 2008) (unpublished manuscript), available at http://papers.ssrn.com/abstract_id=1250642.

¹² Carol Rose, *Crystals and Mud in Property Law*, 40 STAN. L. REV. 577, 577–78 (1988) (discussing the role of clearly demarcated entitlements in property regimes).

¹³ *Id.* at 590–91.

¹⁴ See, e.g., Boyle, *supra* note 1, at 55–56.

¹⁵ See, e.g., Dan L. Burk, *Muddy Rules for Cyberspace*, 21 CARDOZO L. REV. 121, 163–78 (1999) (making the case for fuzzy copyright entitlements).

out this crisply delimited quality (and would also question whether such delimitation is even possible).¹⁶

I focus on this latter aspect of copyright's propertization and show that the concern that this trend necessarily degrades the public domain is unwarranted. I then go one step further and illustrate that propertization—at least insofar as it entails a move in the direction of clearly demarcated copyright entitlements—is actually beneficial for users and the public domain generally. The appeal of crystalline entitlements is familiar in physical property law: as numerous commentators have observed, owners need to know the extent of their entitlements in order to extract complete value from them.¹⁷ Less frequently made, but equally availing, is the correlative point for users of public physical property. If one wants to use a public beach or municipal park, well-demarcated boundaries enable that use in a way that unclear boundaries cannot.¹⁸ Consider, for example, the obvious efficiency loss generated by a public/private boundary that says “use the public beach but don't go unreasonably close to adjoining private land” rather than one that simply describes with visible clarity the line where the common entitlement ends and the private one begins.

This point suggests that crystals possess underattended benefits for users of public intangible resources. Copyright law entitles users to access both information in the public domain (such as uncopyrightable ideas as well as works of authorship whose copyright has expired) and some elements of protected works (via the fair use defense).¹⁹ In this respect, crystals can be the user's best friend. Just as clearly delimited public/private borders in the physical property context aid both owners and users in understanding the scope of, and efficiently using all of, their entitlements, so do clear boundaries in copyright law indicate, by negative implication, where the public domain begins. Moving in the direction of crisply demarcated, property-like entitlements in copyright thus bears promise for reducing the uncertainty that plagues users who seek to exploit resources in the public domain but lack the ability to

¹⁶ See Arewa, *supra* note 2, at 504; Carrier, *supra* note 2, at 5; Lemley, *supra* note 2, at 902.

¹⁷ See, e.g., Rose, *supra* note 12, at 577–78.

¹⁸ Cf. *Gion v. City of Santa Cruz*, 465 P.2d 50, 52–60 (Cal. 1970) (demonstrating the fluidity of public/private boundaries separating public beaches from adjoining private land); *In re Application of Banning*, 832 P.2d 724, 726–33 (Haw. 1992) (same).

¹⁹ See 17 U.S.C. §§ 102, 107, 302 (2006) (outlining the federal statutory requirement of copyrightable subject matter requirement, the statutory fair use defense, and the statutory duration of copyright protection).

ascertain with certainty which of those resources (or what elements of owned resources) remain available for all to use.

This insight carries with it important practical implications. This Article shows that, contrary to many commentators' claims, the biggest problem the public domain faces is not property-like rule structures in copyright law, but the lack of them. The poorly defined standards that separate fair uses from foul ones, or ideas from expression, or delimit the boundaries of works of authorship all make it difficult for individuals to know which cultural resources are proprietary and which are free for them to use. Owners exploit this ambiguity to their advantage, demanding exorbitant licenses for, or threatening litigation over, even questionably proprietary information goods. Risk-averse, undercapitalized users typically capitulate in response to these threats, and the result is that owners expand their entitlements beyond the limits described by the positive law. A more crystalline rule structure would illuminate the boundaries of the public domain and give users confidence to push back against unwarranted claims of ownership, to the benefit of users and the public more generally.

This Article does not seek to revisit the familiar question whether copyright should be governed by property or liability rules. That debate has been engaged ably elsewhere and needs no further elaboration here.²⁰ Rather, it adds to the conversation about copyright's relationship to property by calling attention to one particular way in which property ideas can be deployed for public as well as private benefit. This is not to say, though, that a full real property paradigm for copyright is conceptually coherent or an unalloyed good. At the very least, the obvious differences between the objects governed by property and copyright law—rivalrousness and excludability—counsel caution in importing ideas from one field into the other. But this caution should not prevent a recognition of the commonalities between the two fields or an adoption of a more nuanced view of the relationship between them.²¹

²⁰ See, e.g., Mark A. Lemley & Philip J. Weiser, *Should Property or Liability Rules Govern Information?*, 85 TEX. L. REV. 783, 785 (2007) (arguing that liability rules should govern information because the injunctive relief that flows from property rules systematically overcompensates plaintiffs and overdeters legitimate users); Smith, *supra* note 1, at 1757–61 (articulating an information-costs theory of property versus liability rules regimes in intellectual property systems).

²¹ Finally, and at the risk of stating the obvious, I do not intend to discuss or question whether copyright is property. Even scholars who are strongly sympathetic to the public domain rightly concede that copyright is a form of property. E.g., LAWRENCE LESSIG, *FREE CULTURE* 172 (2005) ("The issue is therefore not simply whether copyright is property. Of

Part I of this Article explains how the notion of crystalline entitlements as developed in the context of physical property carries over to the intellectual property setting and outlines three uncertainty problems that plague potential users of public domain resources.²² Part II considers two main objections to the idea of sharply demarcated borders for information goods: first, that ambiguous boundaries are normatively more attractive, and second, that imposing a crystalline rule structure on incorporeal entitlements is conceptually incoherent.²³ Part III proposes several practical ways in which copyright law can be revised to implement this suggestion.²⁴ Finally, the Conclusion situates this Article in the context of the broader property literature, linking it with other academic projects that seek to critique the dominant view of ownership from within a property paradigm rather than attacking the idea of possession from outside the discipline.²⁵

I. CRYSTALLIZING THE PUBLIC DOMAIN

A. *Crystals and Mud in Intellectual Property Law*

Clear rules help actors shape their behavior, both in life and in law. The reason is simple: the better I understand the complex matrix of formal legal rules and informal social norms that apply to my future conduct, the more easily I can engage in conduct that complies with them (or that fails to comply with them, and will bring sanctions). Everyday examples abound. Justifiable confusion would ensue if a professor told her students to submit final papers "at some reasonable time" rather than at a future date certain. Legal standards sometimes achieve a high degree of clarity. "Drive no faster than sixty-five miles per hour" gives motorists a much clearer benchmark for avoiding traffic violations than "drive at a 'reasonable and prudent' speed."²⁶ Economists have

course copyright is a kind of 'property,' and of course, as with any property, the state ought to protect it."). The issue I engage in this Article is, instead, what implications using property-like forms of governance for copyright has for the public domain.

²² See *infra* notes 26–121 and accompanying text.

²³ See *infra* notes 122–197 and accompanying text.

²⁴ See *infra* notes 198–258 and accompanying text.

²⁵ See *infra* notes 259–284 and accompanying text.

²⁶ Prior to 1999, Montana had such a speed limit during daytime hours (but with maximum limits). See, e.g., Act of May 1, 1997, ch. 473, § 3, 1997 Mont. Laws 2424, 2425, amended by Act. of Feb. 24, 1999, ch. 43, § 2, 1999 Mont. Laws 128, 128–29 (codified as amended at MONT. CODE ANN. § 61-8-303(1) (2007)); see also *State v. Stanko*, 974 P.2d 1132, 1135–37 (Mont. 1998) (holding that the vague Montana speed limit statute violated the Due Process Clause of the Montana Constitution). Consider also as an example of this

applied this basic notion to the law and have shown that uncertainty in legal standards tends to generate inefficient outcomes as actors take excessive precautions to avoid sanctions.²⁷ Although law often falls well short of coherence and predictability,²⁸ these remain ideals to which it aspires.²⁹

Carol Rose's article *Crystals and Mud in Property Law* discussed the role of rules and standards in real and personal property, and, in so doing, introduced a metaphor that provides the central conceptual structure for this Article.³⁰ "Crystals" refers to sharply demarcated ownership entitlements, such as the borders of a plot of land.³¹ "Mud" refers to entitlements that are not defined with ex ante precision.³² Examples of mud include the law of nuisance,³³ which allows property owners to restrain a neighbor's offending use of his own land if it is "reasonable," or takings doctrine, which permits government acquisition of private property for a "public purpose."³⁴ But as Rose points out, clearly demarcated entitlements—crystals—play a particularly large role in property law.³⁵ Jeremy Bentham noted centuries ago that property is "nothing but a basis for expectation,"³⁶ and modern neoclassical economists emphasize the virtues of crystalline property entitlements as a means of lowering both information costs and transaction costs.³⁷ Demsetz's familiar account of the growth of property systems goes further, suggesting that crystalline entitlements proliferate as resources

degree of clarity the thirty-five year age minimum for presidential candidates. U.S. CONST. art. II, § 1, cl. 5.

²⁷ John E. Calfee & Richard Craswell, *Some Effects of Uncertainty on Compliance with Legal Standards*, 70 VA. L. REV. 965, 995 (1984) (showing that defendants tend to overcomply with laws as the certainty with which they are subject to sanction decreases).

²⁸ Many scholars have elaborated the extent to which uncertainty pervades law, both from the perspective of many provisions' inherent ambiguity as well as the uncertainty introduced by erratic enforcement. See *id.* at 968–69.

²⁹ Cass R. Sunstein et al., *Predictably Incoherent Judgments*, 54 STAN. L. REV. 1153, 1154 (2002) ("Coherence in law is a widely shared ideal.").

³⁰ Rose, *supra* note 12, at 577–78.

³¹ *Id.*

³² *Id.* at 578.

³³ See, e.g., *Prah v. Maretti*, 321 N.W.2d 182, 192 (Wis. 1982) (resolving a nuisance case based on "all the underlying facts and circumstances" including temporal priority, relative valuation of the right, and the ability to alter one's property).

³⁴ See, e.g., *Kelo v. City of New London*, 545 U.S. 469, 477–90 (2005) (demonstrating the ambiguity inherent in the judicial determination of what constitutes a "public use").

³⁵ Rose, *supra* note 12, at 577.

³⁶ JEREMY BENTHAM, *THEORY OF LEGISLATION* 68 (Upendra Baxi ed., Richard Hildreth trans., Oceana Publ'ns 1975) (1802).

³⁷ See Clifford G. Holderness, *A Legal Foundation for Exchange*, 14 J. LEGAL STUD. 321, 322–26 (1985).

become more valuable, and that this trend toward increased propertization maximizes social wealth.³⁸ Rose acknowledges the prevalence of crystals in property law, but she carefully identifies the nontrivial number and normative importance of muddy ownership entitlements as well.³⁹

These points are familiar. I seek to carry them forward in several ways. First, to the extent that writers extol the virtues of crystals, they typically identify only private actors as their beneficiaries.⁴⁰ Judge Posner's observation that the value of fixed entitlements has been known "for hundreds of years" measures that value only with respect to private parties who can rely on such fixed entitlements to more easily engage in trade.⁴¹ Other defenses of crystalline property rules similarly focus on their benefits to private exchange.⁴² But the general public, as well as individual private owners, also benefits from crystals. The term "property" is commonly conflated with private property in both academic literature and the popular mind, but this fails to account for familiar kinds of public property that surround us constantly. Law has dedicated certain resources to the public since Roman times in order to facilitate trade (roads, watercourses, shoreline) and recreation (village commons, municipal parks).⁴³

Just as crystalline rules governing real property facilitate *private* exploitation of private resources, so do well-demarcated entitlements enable the *public* to more effectively access and use these shared resources. Crystals in property law create efficiency by helping actors organize their expectations about their entitlements to access and use physical

³⁸ See generally Demsetz, *supra* note 8.

³⁹ See Rose, *supra* note 12, at 580–90. Crystalline rules are not, of course, exclusive to property law. Many rules within property have a muddy character (for example, nuisance, waste, and takings), and there are features of other areas of law that possess unambiguously demarcated boundaries (strict liability offenses in criminal law like statutory rape or drug possession have crystalline elements). That said, crystalline boundaries tend to be characteristic of property law, both because they describe elemental ownership entitlements (whether land or chattels) and because they provide a necessary precondition for a property rules regime.

⁴⁰ See, e.g., Holderness, *supra* note 37, at 321–22 (discussing how clear rules facilitate more efficient private exchange).

⁴¹ RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 30 (3d ed. 1986).

⁴² E.g., Steven N.S. Cheung, *The Structure of a Contract and the Theory of a Non-Exclusive Resource*, 13 J.L. & ECON. 49, 64 (1970) (explaining that clearly defined property entitlements tend to reduce conflict among social groups).

⁴³ Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711, 713, 723 (1986).

resources.⁴⁴ This insight operates equally with respect to public and private resources because crystalline rules describe public/private as well as private/private boundaries, and thus help actors organize their expectations about, and extract value from, public property as well. Members of the public cannot effectively enjoy the whole of a municipal park or a village common or public beach unless they clearly understand where the public land ends and surrounding private property begins.

This point manifests itself in ways that escape attention because they seem so intuitive. Municipal parks are sectioned off from adjacent private property by clear, binary boundaries indicated by walls, fences, or landscaping so that users know just where they can place a picnic blanket without risking a trespass suit. Consider the implications of an alternative rule that instead provided that "park users may recreate only as close to the adjoining homes as is reasonable." Such a rule would likely drive down the price of the park-adjacent property because purchasers would fear the public taking liberties with the rule and encroaching on their space. But it would also harm the public by forcing them to guess about the scope of their use rights. This fear would likely result in the public's using the park only in areas far from private property in order to avoid running afoul of litigious owners who took advantage of the rule's vagueness to press a particularly broad interpretation of the boundaries of their real estate.

Laws governing the high seas illustrate the same point. Some parts of the ocean are subject to the territorial laws of the nearest nation.⁴⁵ The rest (the vast majority) is something close to a fully public resource.⁴⁶ It is far less heavily regulated and governed primarily by the

⁴⁴ See Thomas W. Merrill & Henry E. Smith, *The Morality of Property*, 48 WM. & MARY L. REV. 1849, 1891-92 (2007) (observing that harm to property interests is dependent on the existence of "spatial boundaries and things"); Henry E. Smith, *Exclusion Versus Governance Two Strategies for Delineating Property Rights*, 31 J. LEGAL STUD. 453 (2002) (showing that property governance strategies require delineation of boundaries by grouping complementary attributes of a resource or by following natural boundaries); cf. *Gion v. City of Santa Cruz*, 465 P.2d 50, 52-60 (Cal. 1970); *In re Application of Banning*, 832 P.2d 724, 726-33 (Haw. 1992).

⁴⁵ United Nations Convention on the Law of the Sea art. 3, Dec. 10, 1982, 1833 U.N.T.S. 3 [hereinafter UNCLOS] (dictating that coastal states exercise sovereignty over their territorial seas, the breadth of which they may establish to a limit of twelve nautical miles).

⁴⁶ It is no longer the case that the high seas are an entirely unregulated zone like *res nullius* at Roman law. The relatively weak constraints imposed by the law of the sea do, however, make them closer to a commons that is regulated (albeit weakly) and still open to all, like *res communes* at Roman law. See Rose, *supra* note 5, at 90 (describing a typology of nonexclusive property under Roman law).

United Nations Convention on the Law of the Seas ("UNCLOS").⁴⁷ The rules that demarcate the point at which one regime ends and the other begins are classically crystalline. As one moves out from shore, five different zones, measured by differing nautical-mile increments, determine the extent to which nations can operate in and regulate contiguous waters.⁴⁸ Such a rule structure bears obvious advantages over its hypothetical muddy alternative. Imagine a rule that determined the application of territorial versus international law with respect to a multifactor balancing test that looked to the nature of the conflict, identities of the parties, and distance from shore at the time of the relevant events, and equitable considerations. Although such a rule would not necessarily be suboptimal,⁴⁹ it would at least create enormous uncertainty on the parts of both states and individuals as to where more heavily regulated territorial waters end and where the quasi-commons of international waters begins.

As these examples show, to the extent that crystalline property entitlements create social welfare,⁵⁰ the public generally (and not just private owners) enjoys that welfare, because crystals demarcate the limits and facilitate the use of public as well as private resources. But is this insight limited to physical property? Most current literature tends to regard crystallization of the boundaries that characterize intellectual property rights, and copyright in particular, with suspicion.⁵¹ Many see the introduction of crisply demarcated property entitlements as a first step down the road to unchecked accretion of private rights in informa-

⁴⁷ The United States and several other nations have signed but not ratified UNCLOS. United Nations, UNCLOS Status, <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/status.htm> (last visited Oct. 25, 2008). The United States still abides by most of its provisions because it regards them as enforceable customary international law. Alfred P. Rubin, *Monster from the Deep: Return of UNCLOS*, NAT'L INT., Sept. 1, 1994, at 63, 63-65, available at <http://www.nationalinterest.org/General.aspx?id=92&id2=11778>.

⁴⁸ That the rules defining zones of territorial control of contiguous ocean are crystalline does not mean that the rules defining national rights within those zones are similarly clear. For example, foreign vessels enjoy a right of "innocent passage" through territorial waters. UNCLOS's definition of this right sounds entirely in muddy terms. See UNCLOS, *supra* note 45, cl. 19, cl. 1 (entitling foreign vessels to pass through territorial waters where the passage is not "prejudicial to the peace, good order or the security" of the coastal state).

⁴⁹ Such a rule would likely cause actors to regard the sea as less of a commons. This could have beneficial effects due to broader application of territorial regulations on socially harmful conduct like piracy or dumping waste into the ocean.

⁵⁰ This Article does not take the position that crystalline property entitlements are an unalloyed good. Rather, this Article seeks only to broaden the understanding of the kind of value generated by such entitlements.

⁵¹ See *supra* note 2 and accompanying text.

tion (at the expense of the public domain).⁵² This concern is not baseless. It is a familiar point that resources must be reduced to well-defined units of measurement before their full value can be exploited.⁵³ But as discussed in more detail below, introducing in copyright law the kinds of crystalline rule structures endemic to physical property can work to the benefit, not the detriment, of the public domain.

B. Public Information Goods and the Need for Crystals

The concern that clearly delimiting intellectual property entitlements will enable excessive private acquisition of information has a surface plausibility.⁵⁴ After all, making any good susceptible to ownership is a prerequisite to its public or private possession. Recent history, however, rebuts the notion that changes from muddy to crystalline rules necessarily operate in favor of swallowing up public-oriented information privileges. For example, the Fairness in Music Licensing Act of 1998 ("FIMLA") replaced the malleable "*Aiken*" exemption (which exempted from infringement liability public performances of copyrighted works that used reception technology "of the kind commonly used in private homes") with a well-defined set of rules including specific square footage and speaker-size requirements for taking advantage of the statutory exemption.⁵⁵ FIMLA's move from mud to crystals benefited users (secondary transmitters) because it established rules that more clearly identified when they could use musical works without paying a statutory mechanical license—a benefit that came at the expense of the owners (primary transmitters) who bore the cost of the exemption.⁵⁶

This single example shows that at the very least, moves from muddy to crystalline rule structures do not necessarily disfavor public interests. But the point need not be so limited. On the contrary, intellectual property, even more than physical property, can benefit from

⁵² See Boyle, *supra* note 1, at 55–56 (expressing reservation about the trend toward cordoning off information goods with clearly defined borders because it facilitates the reduction of the public domain to private ownership); Neil W. Netanel, *Copyright and a Democratic Civil Society*, 106 YALE L.J. 283, 285 (1996) (warning that "technological fences . . . raise the specter of all-consuming copyright owner control").

⁵³ Demsetz, *supra* note 8, at 351–53 (making this claim with respect to the development of the fur trade in early North America).

⁵⁴ See Arewa, *supra* note 2, at 504 (discussing the tendency of propertization to diminish authorship based on creative appropriation); Lemley, *supra* note 2, at 902 (discussing his concern regarding the propertization of intellectual property).

⁵⁵ Compare 17 U.S.C. § 110(5)(A) (2006) (the old, muddy standard from the 1976 Act), with *id.* § 110(5)(B) (the new, crystalline rules introduced by FIMLA).

⁵⁶ See *id.* § 110(5)(B).

the certainty generated by the introduction of clearly defined ownership entitlements. Writers often gesture at the difficulty of demarcating rights in information⁵⁷ as a reason that such entitlements should have a muddy character.⁵⁸ The thesis of this Article depends on the proposition that just the opposite is the case: it is the difficulty of ascertaining with clarity the scope of entitlements in information that demands attempts to make those entitlements as well defined as possible. Uncertainty undermines the goals of the federal copyright regime by robbing the public of the ability to use the common information goods to which they are entitled. Three examples illustrate the point.

1. Fair Use and the Justifiably Risk-Averse User

Certain unauthorized uses of copyrighted works of authorship enjoy a full defense to infringement thanks to the Copyright Act's fair use provisions.⁵⁹ The fair use defense serves important constitutional and social purposes, assuring that information ownership has enough play in its joints to allow free discussion about, and non-market-substitutive uses of, works still in their period of exclusive rights.⁶⁰ But however well conceived it may be in theory, the fair use defense has proved troublesome in practice primarily because of its muddy character. The statutory test invites consideration of four open-ended factors, each of which raises difficult questions of interpretation.⁶¹ Judges have interpreted the familiar statutory four-factor fair use test in ways so variant that users have little sense of which uses will expose them to liability.⁶² Even before its statutory enshrinement in the Copyright Act of 1976

⁵⁷ The argument that the information costs associated with defining intellectual property entitlements typically assumes ascertaining these boundaries using copyright law as it currently exists. In this Article, I seek instead to suggest means by which law can be reformed to lower these costs. Regardless, I contest whether the definitional difficulty is as profound as is commonly assumed. See *infra* notes 176–197 and accompanying text.

⁵⁸ See, e.g., Clarisa Long, *Information Costs in Patent and Copyright*, 90 VA. L. REV. 465, 499–512 (2005) (arguing that the costs of defining entitlements in patent and copyright are prohibitive for the purposes of imposing a property rights regime); see also Stewart E. Sterk, *Property Rules, Liability Rules, and Uncertainty About Property Rights*, 106 MICH. L. REV. 1285, 1327–32 (2008) (suggesting that, at present, the costs of determining copyright entitlements are often prohibitively high).

⁵⁹ See 17 U.S.C. § 107 (2006).

⁶⁰ Michael W. Carroll, *Fixing Fair Use*, 85 N.C. L. REV. 1087, 1089–90 (2007) (discussing the rationale for the fair use defense).

⁶¹ See *id.*

⁶² See *id.* at 1106–20 (demonstrating the inconsistency of the various judicial interpretations of the fair use defense).

("1976 Act"), courts considered the then common law fair use defense "the most troublesome [doctrine] in the whole of copyright law."⁶³

Fair use thus epitomizes the muddled entitlement, and this uncertainty has skewed the scope of the defense in favor of owners at the expense of users. Direct copyright infringement remains a strict liability offense, and even a relatively minor unauthorized use can result in major liability if the owner has registered the work and chooses to claim statutory damages.⁶⁴ The predictable result is overdeterrence, as users tend to wilt in the face of threats of liability, however dubious.⁶⁵ Consider two examples.⁶⁶ Stephen James Joyce, the sole heir of his grandfather's literary estate, has taken an extremely broad position with respect to the scope of his rights in those works.⁶⁷ He has threatened legal action even against work that likely falls outside the scope of that estate (such as facts pertaining to the life of James Joyce) and valid fair uses of proprietary works (such as scholarship and criticism).⁶⁸ That many of these claims are questionable at best has not aided would-be users, who tend to have far fewer resources than the Joyce estate and cannot risk the possibility, however slim, of a large adverse judgment.⁶⁹ One Joyce scholar has lamented that Stephen James's strong-arm tactics have sounded the death knell of Joyceanity.⁷⁰

⁶³ *Dellar v. Samuel Goldwyn, Inc.*, 104 F.2d 661, 662 (2d Cir. 1929).

⁶⁴ See John Tehranian, *Infringement Nation: Copyright Reform and the Law/Norm Gap*, 2007 UTAH L. REV. 537, 543-48 (discussing how the breadth of copyright law leads to countless technical violations that social norms would regard as innocuous).

⁶⁵ See James Gibson, *Risk Aversion and Rights Accretion in Intellectual Property Law*, 116 YALE L.J. 882, 887-95 (2007) (outlining the factors that cause copyright users to seek licenses even when they have a valid fair use claim).

⁶⁶ For more examples, see PATRICIA AUFDERHEIDE & PETER JASZI, CTR. FOR SOC. MEDIA, UNTOLD STORIES: CREATIVE CONSEQUENCES OF THE RIGHTS CLEARANCE CULTURE FOR DOCUMENTARY FILMMAKERS 7-22 (2004), available at http://www.centerforsocialmedia.org/files/pdf/UNTOLDSTORIES_Report.pdf; LESSIG, *supra* note 21, at 95-96 (discussing the *Jon Else/Simpsons* licensing case).

⁶⁷ See D.T. Max, *The Injustice Collector*, NEW YORKER, June 19, 2006, at 34.

⁶⁸ See *id.* Though would-be users of Joyce's work rarely litigate these cases, there is at least one exception. Carol Shloss recently successfully settled a lawsuit filed against Stephen James Joyce that arose when he threatened to sue her for infringement for any use of Joycean material in her scholarly work. See Press Release, Stanford Law School, Stanford Scholar Wins Right to Publish Joyce Material in Copyright Suit; James Joyce Estate Agrees to Settle (Mar. 22, 2007), available at <http://www.law.stanford.edu/news/pr/55>.

⁶⁹ See Max, *supra* note 67, at 34.

⁷⁰ *Id.* at 36 ("New biographies, digital representations of Joyce's work, analyses of Joyce's manuscripts, and, to a lesser extent, criticism—they hardly exist," he said. "People either despaired of doing them . . . or the demands were so high that they just didn't feel it was worth continuing the discussions." (quoting Robert Spoo, former editor of the *James Joyce Quarterly* and now a copyright lawyer)).

Documentarian John Else's experience illustrates the same point. When creating a film about the Ring Cycle, Else noticed that a scene of actors preparing for their performance backstage happened to feature a television on which an episode of the *Simpsons* played.⁷¹ Else, acting out of an abundance of caution, contacted Fox to see about licensing the 4.5 second clip.⁷² Fox lawyers told Else that he would have to pay \$10,000 for the rights to the material.⁷³ Faced with a fee that steep, Else simply cut the scene inadvertently including the *Simpsons* footage from his film.⁷⁴

Of course, some users may not engage this either/or problem and simply pay for a license rather than risk litigation or forego the use. But the trend toward clearing all possible rights due to extreme risk-aversion simply illuminates a different aspect of the problem. The default norm in favor of licensing allows owners to extract more value from their work than they are statutorily entitled to.⁷⁵ Nor are excessive licensing practices mere social norms. Unnecessary licensing also creates a feedback loop that further skews fair use law against users. The resulting hard-line position—epitomized by the Sixth Circuit's famously terse formula “[g]et a license or do not sample”⁷⁶—hardly solves the problem. Where the transaction costs of negotiating a license exceed the value of the licensed material, no transaction will take place. Given the small amount of material users often seek to incorporate, it is safe to assume that transaction costs exceed use benefits with some frequency. As such, this trend toward rights accretion means that copyright law will fail to facilitate even the small-scale socially optimal takings it was meant to,⁷⁷ and in turn will fail to serve its purpose of encouraging creation and free speech.⁷⁸

⁷¹ LESSIG, *supra* note 21, at 95–96.

⁷² *Id.* at 96–97.

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ See Gibson, *supra* note 65, at 887.

⁷⁶ Bridgeport Music, Inc. v. Dimension Films, 383 F.3d 390, 398 (6th Cir. 2004).

⁷⁷ See Wendy J. Gordon, *Fair Use as Market Failure*, 82 COLUM. L. REV. 1600, 1627–45 (1982) (arguing that fair use's design is to facilitate optimal uses of protected works for which transaction costs preclude traditional licensing).

⁷⁸ Eldred v. Ashcroft, 537 U.S. 186, 220 (2003) (describing fair use as a critical “First Amendment safeguard[]” designed to prevent copyright law from unduly burdening free speech); Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 575 (1994) (noting that fair use is “necessary to fulfill copyright’s purpose”).

2. The Decline of Notice and the Orphan Works Problem

From the first federal Copyright Act in 1790 until its most recent wholesale revision in 1976, copyright law had the dubious distinction of being characterized to a large extent by its abundance of formalities.⁷⁹ During this period, practicing copyright law consisted to a large extent of making sure that authors had preserved their rights by complying with formal requirements relating to registration, renewal, deposit, and recordation.⁸⁰ Subsequent legislation—the 1976 Act, the Berne Convention Implementation Act of 1988, and the Copyright Renewal Act of 1992—swept away many of these formalities in the interest of harmonizing U.S. law with international treaties and avoiding the harsh results that sometimes befell authors who failed to comply with the old rules.⁸¹ Although copyright protection previously vested on publication with proper notice and required registration and deposit (and, eventually, renewal) as prerequisites to enforceable protection, it now vests upon fixation of a work in a tangible medium of expression and does not depend on jumping through regulatory hoops.⁸²

The elimination of these formalities has helped to achieve international harmonization and facilitated the ease with which owners ac-

⁷⁹ For example, under the 1909 Act, copyright protection attached only to those works that contained—in specific locations—the year of first publication; the word “Copyright,” the abbreviation “Copr.,” or the symbol “©”; and the name of the copyright holder. Copyright Act of 1909, ch. 320, §§ 9, 18–19, 35 Stat. 1075, 1077, 1079 (repealed 1976). Furthermore, failure to deposit two copies of the work with the Library of Congress would also divest a work of protection under the 1909 Act. *Id.* § 12, 35 Stat. at 1078. Although the requirements of these formalities—and those of registration and publication—largely were relaxed by the 1976 Act and the 1989 ratification of the Berne Convention, formalities are still a hallmark of copyright law. See ROBERT P. MERGES ET AL., *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE* 405–10 (2007) (outlining copyright law’s evolution with respect to formalities).

⁸⁰ See MERGES ET AL., *supra* note 79, at 405–10 (outlining copyright law’s evolution with respect to formalities).

⁸¹ See generally Copyright Renewal Act of 1992, Pub. L. No. 102-307, 106 Stat. 264 (codified as amended in scattered sections of 17 U.S.C.); Berne Convention Implementation Act, Pub. L. No. 100-568, 102 Stat. 2853 (1988) (codified as amended in scattered sections of 17 U.S.C.); Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (codified as amended at 17 U.S.C. §§ 101–810 (2006)).

⁸² See 17 U.S.C. §§ 401, 407, 410–412; Copyright Act of 1909 §§ 9–10, 12, 18–19, 35 Stat. at 1077–79. Formalities have not become irrelevant, of course. Registration still remains prerequisite to infringement suits for U.S. works, and timely registration ensures the possibility of recovering statutory damages and attorney fees. 17 U.S.C. § 411. Deposit is mandatory, and can be compelled by the Copyright Office, though it is punishable only by fine and not by loss of copyright. *Id.* § 407. And the termination of transfer provisions that the 1976 Act instituted require compliance with elaborate notice and registration requirements in order to perfect and enforce the termination right. *Id.* § 203.

quire copyrights.⁸³ But it also made copyright entitlements muddier, by robbing the public of a key means of ascertaining the ownership status of a given work. One particular means by which these revisions made ownership muddier was the elimination of the requirement that federally protected published works be affixed with proper notice.⁸⁴ Prior to the 1976 revisions, published works of authorship had to be designated with the "©" symbol and the year of copyright; failure to do so forfeited works of authorship to the public domain.⁸⁵ Although the notice requirement did not affect the demarcation of the ownership entitlements themselves, it did provide users with a clear, simple means by which they could ascertain the ownership and status of a given work. When copyright terms lasted a maximum of fifty-six years, this meant one could easily identify the original owner and compute the point at which private rights in the work expired.⁸⁶ The absence of proper notice, conversely, could be taken as an indication that copyright had not vested and that the work could be used without fear of infringement.

The decline in formalities muddled knowledge about the ownership status about works of authorship in other ways. As registration moved from mandatory to advisory, fewer and fewer authors bothered to register their work.⁸⁷ The Copyright Office's records of registration thus became less and less useful as a means of determining whether a particular work remained under protection. Other revisions in both 1976 and 1998 exacerbated this problem. The 1976 Act converted copyright from a system in which authors had to opt in to possess rights in their work to one in which rights vested automatically upon creation of those works regardless of the author's intent or conduct.⁸⁸ And after terms grew to life of the author plus fifty years in 1976,⁸⁹ and life of the

⁸³ MERGES ET AL., *supra* note 79, at 405–10.

⁸⁴ Compare Copyright Act of 1909 §§ 9, 18–19, 35 Stat. at 1077, 1079 (the notice requirement of the 1909 Act), with 17 U.S.C. §§ 401–403, 405–406 (the current, more permissive standard).

⁸⁵ Copyright Act of 1909 §§ 9, 18–19, 35 Stat. at 1077, 1079.

⁸⁶ *Id.* §§ 23–24 (granting a first term of protection of twenty-eight years from the date of first publication that could be renewed in the final year for a second term of twenty-eight years).

⁸⁷ Christopher Sprigman, *Reform(aliz)ing Copyright*, 57 STAN. L. REV. 485, 494–97 (2004) (documenting the decline in copyright registrations under the voluntary scheme).

⁸⁸ See MERGES ET AL., *supra* note 79, at 405–10.

⁸⁹ See Copyright Act of 1976 § 302(a), 90 Stat. at 2572 (codified at 17 U.S.C. § 302(a) (1994)).

author plus seventy years in 1998,⁹⁰ the likelihood that any given work remained protected increased significantly.

The net result of all this has generated what has come to be known as the "orphan works" problem.⁹¹ The current, substantially increased scope of copyright protection far exceeds owners' demand for protection.⁹² Many works remain proprietary even though they possess negligible commercial value and their owners may have no desire to extract further value from them.⁹³ But in a culture where the stakes of infringement are enormous, potential users must spend enormous amounts of time and money trying to track down the owners of such works and make sure they have cleared the rights to them.⁹⁴ Consider, for example, old newsreels. News footage from the early and mid-twentieth century typically lacks any meaningful commercial value to its original creators, though it may have considerable value to makers of historical films and documentaries. The extension of copyright terms in 1976 and 1998, though, means that much of this material remains protected, regardless of whether its owners are indifferent to its use. Although would-be users of such works rightly lament the monetary and other costs of clearing rights to these older works, they at least have the advantage of being able to start their searches with some sense of the ownership and status of these works because the pre-1976 Act notice requirements still apply to them.⁹⁵

The elimination of the notice requirement, however, threatens to exacerbate the orphan works issue. Because owners are no longer required to signal to the public the ownership status of their works of authorship, users lack any information that would help them contact owners to clear rights to the works. Especially given that copyright vests in works of authorship upon creation, and that the term of protection now lasts for the life of the author plus seventy years, the problem of orphan works will proliferate for works of authorship created under the 1976 Act.⁹⁶ Many more works will be protected for a much longer time, requiring would-be users to clear rights even though the

⁹⁰ See Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, § 102(b), 112 Stat. 2827, 2827 (1998) (codified at 17 U.S.C. § 302(a) (2006)).

⁹¹ Orphan Works, 70 Fed. Reg. 3739, 3739 (Jan 26, 2005).

⁹² *Id.* at 3741.

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ This is because the 1976 Act was effective only prospectively. See Copyright Act of 1976 § 301(a), 90 Stat. at 2572.

⁹⁶ Sonny Bono Copyright Term Extension Act § 102(b), 112 Stat. at 2827 (extending the term of protection for works created under the 1976 Act to seventy years).

works' owners have no interest in extracting value from them. Although the ownership status of any given work may be clear, inadequate notice of that status will either deter users from incorporating these works altogether, or at least create substantial—and often prohibitive—transaction costs.⁹⁷

3. Substantial Similarity and Ex Post Entitlement Definition

The ultimate question in copyright litigation is typically whether the defendant has infringed one of the plaintiff's exclusive rights.⁹⁸ This question is sometimes easy to answer. If the plaintiff can show that the defendant created a hundred copies of his book and gave them away to the public without authorization, there are unambiguous violations of the plaintiff's exclusive rights to reproduce and publicly distribute his work.⁹⁹ Often, however, the question whether an owner's work of authorship has been infringed presents a much harder case.¹⁰⁰ Copyright law does little to define the boundaries of works of authorship. Indeed, although the patent system has been criticized for being little more than a rubber stamp that fails to filter out unpatentable inventions,¹⁰¹ the onerous process of patent application and disclosure provides some notion of the nature and scope of claims.¹⁰² By contrast, copyright arises immediately upon fixation of a copyrightable work of authorship in a tangible medium of expression.¹⁰³ Authors need give no notice to the public of their nascent property rights,¹⁰⁴ and the law only weighs in on its validity after owners claim that their copyright has been infringed.

⁹⁷ See U.S. Copyright Office, *The Importance of Orphan Works Legislation* (Sept. 25, 2008), <http://www.copyright.gov/orphan> (providing overview of and resources concerning the orphan works issue).

⁹⁸ See 17 U.S.C. § 106.

⁹⁹ See *id.* § 106(1), (3) (granting an author of a copyrighted work the exclusive rights of reproduction and distribution).

¹⁰⁰ See, e.g., *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 120–23 (2d Cir. 1930) (demonstrating the difficulty courts have in determining when the similarity between two works evidences an alleged infringer's taking from the plaintiff's work).

¹⁰¹ Mark Lemley et al., *What to Do About Bad Patents?*, REGULATION, Winter 2005–2006, at 10, 10.

¹⁰² 35 U.S.C. §§ 101–103, 112 (2000) (outlining patent's requirements of utility, novelty, nonobviousness, and enablement).

¹⁰³ 17 U.S.C. § 102.

¹⁰⁴ Often, prudent authors register their works, but the act of registration no longer is prerequisite to copyright's vesting, and instead only preserves certain prerogatives such as the right to attorney fees and statutory damages. See 17 U.S.C. § 502.

The *ex post* definition of copyright owners' entitlements contrasts sharply with the *ex ante* definition of entitlement scope typical in the physical property setting. If I want to know where someone's land begins and ends, I need not venture a trespass to discover this fact. Rather, I can likely eyeball the tract and identify where the landowner has fixed a boundary fence. At the very least, I can go down to city hall and consult plat maps if this clear external indication is absent. Copyright works differently. If I want to create a sound recording but am not sure whether it will infringe the copyright of some other sound recording author, I simply have to create my work of authorship and then wait to see if litigation ensues. I have some notion that my work may be similar to a preexisting one, but I can only know with certainty that it crosses the threshold of infringement when the fact finder concludes that my sound recording improperly appropriates from the other work.¹⁰⁵ This is not merely a problem created by the numerous possible preexisting works that an author's work might infringe. Even if an author knows that his work shares some features with an earlier sound recording, there is no instinctive means by which that author can predict whether the similarity between the two works will be regarded as excessive, and result in an infringement judgment.

The doctrine courts have crafted to address the issue—the “substantial similarity” test—illustrates the uncertainty that plagues the process of *ex post* entitlement determination.¹⁰⁶ Judges called upon to resolve the question whether two nonidentical works are similar enough to warrant a finding of infringement typically admit the futility of creating any coherent rule to govern this inquiry.¹⁰⁷ Learned Hand famously lamented:

Upon any work . . . a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. . . . [T]here is a point in this series of abstractions where they are no longer protected, since otherwise the [author] could prevent the use of his “ideas,” to which

¹⁰⁵ The problem is particularly acute because courts may find copying actionable even when the defendant inadvertently or subconsciously copied the accusing work. See *Bright Tunes Music Corp. v. Harrisongs Music, Ltd.*, 420 F. Supp. 177, 177–78 (S.D.N.Y. 1976) (holding that subconscious copying is still actionable), *aff'd sub nom.* *ABKCO Music Inc. v. Harrisongs Music, Ltd.*, 722 F.2d 988 (2d Cir. 1983).

¹⁰⁶ See *MERGES ET AL.*, *supra* note 79, at 480–81 (discussing the uncertainty that has resulted from the judicial interpretation of the “substantial similarity” test).

¹⁰⁷ See, e.g., *Nichols*, 45 F.2d at 121.

... his property is never extended. Nobody has ever been able to fix that boundary, and nobody ever can.¹⁰⁸

In more recent years, courts have struggled to define the boundaries of works of authorship through the development of the substantial similarity doctrine and, as a result, have oscillated between a variety of approaches. Some courts engage in a formal analytical dissection of the commonalities and distinctions between the two works;¹⁰⁹ others look more instinctively to the "total concept and feel" of the accusing work.¹¹⁰ Neither approach, however, has generated anything like a clear, predictable rule.¹¹¹

The substantial similarity regime generates uncertainty in two ways. First, the means by which courts establish the boundaries of works of authorship fail to give users any ability to predict whether a particular use will trigger infringement liability. Second, users can only discover the boundaries of owners' entitlements after they are established in litigation. This uncertainty problem erodes the social value of the copyright system. The *ex post* character of making these difficult determinations forces users into high stakes bargains that tip the balance in favor of well-capitalized owners who can aggressively litigate purported infringement.¹¹² Even if their claim to the underlying entitlement is questionable, owners can leverage their resources to intimidate into settlement users who are fearful of massive adverse judgments.¹¹³ Indeed, courts have imposed liability on makers of derivative works that were not market-substitutive for the original¹¹⁴ and where the copying

¹⁰⁸ *Id.* (internal citations omitted).

¹⁰⁹ See, e.g., *Alexander v. Haley*, 460 F. Supp. 40, 45 (S.D.N.Y. 1978).

¹¹⁰ See *Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp.*, 562 F.2d 1157, 1167 n.9 (9th Cir. 1977).

¹¹¹ See CRAIG JOYCE ET AL., COPYRIGHT LAW 621 (7th ed. 2006) (pointing out the "messy reality of infringement decision making" that courts rarely apply anything like a coherent standard when evaluating infringement claims); see also *Warner Bros. Ent'mt v. RDR Books*, No. 07 Civ. 9667(RPP), 2008 WL 4126736, at *31-40 (S.D.N.Y. Sept. 8, 2008) (holding that *The Harry Potter Lexicon*, although substantially similar enough to infringe on the *Harry Potter* book series to which it is a guide, was too dissimilar to the series to count as a derivative work).

¹¹² Cf. Thomas W. Merrill, *Trespass, Nuisance, and the Costs of Determining Property Rights*, 14 J. LEGAL STUD. 13, 25 n.47 (1985) (observing, in the context of physical property, that "[e]ntitlement-determination costs . . . are 'real' costs and should not be incurred unless they are justified by the expected returns").

¹¹³ See *supra* notes 64-74 and accompanying text.

¹¹⁴ See, e.g., *Castle Rock Ent'mt, Inc. v. Carol Publ'g Group*, 150 F.3d 132, 138-41 (2d Cir. 1998) (finding that a book of trivia questions based on the television show *Seinfeld* was substantially similar to the show itself, despite the owner's admission that the book did not harm, and likely even enhanced, the show's profitability).

occurred unconsciously¹¹⁵ or without the knowledge of the publisher.¹¹⁶ Second comers faced with the high cost of determining the scope of other authors' entitlements, combined with the high costs of overstepping the boundaries of these entitlements, will thus often be deterred from creation.¹¹⁷

C. Three Variations on Crystalline Entitlements

Current work on copyright, at least the minimalist strain that expresses solicitude for the public domain, tends to resist the treatment of copyrighted works of authorship as essentially similar to physical property.¹¹⁸ One version of this resistance manifests a concern about reducing the subject matter of copyright to clearly defined parcels that resemble the well-demarcated units of ownership foundational in real property.¹¹⁹ As these examples illustrate, though, users—and the public domain generally—bear significant costs to the extent that works are not propertized in this particular way. What links each of the foregoing examples is that in each case the breadth of a user's freedom to exploit information resources to which that user is legally entitled is restricted by the ambiguity of the entitlements at issue. Whether the user is a scholar who seeks to make fair use of a protected work of authorship, a filmmaker who wants to use an orphan work, or a songwriter who is uncertain whether her latest work infringes on a preexisting one, all of this conduct—however licit under the Copyright Act—can readily be deterred by well-capitalized owners who can exploit the underlying uncertainty of the doctrines that create the underlying use rights.

These examples illustrate that it is resistance to sharply demarcated boundaries, rather than their imposition, that threatens users' ability to exploit the public domain. They also show three distinct ways in which ambiguity in copyright entitlements arises. First, entitlements may be ill-defined by law. Fair use, for example, is a user privilege governed by a malleable standard that looks to four factors,

¹¹⁵ *E.g.*, *Bright Tunes Music*, 420 F. Supp. at 177–78.

¹¹⁶ *E.g.*, *DeAcosta v. Brown*, 146 F.2d 408, 409–12 (2d Cir. 1944) (holding that publishers are liable for infringement even if they rely in good faith on authors' erroneous representations of noninfringement).

¹¹⁷ *See Sterk*, *supra* note 58, at 1288 ("[T]he search for information might alter the distribution of wealth between the improver and the neighbor, and thereby generate private gains to the party incurring the search costs, while generating no comparable social gains.").

¹¹⁸ *See Arewa*, *supra* note 2, at 504.

¹¹⁹ *See id.*

rather than a rule that provides clear parameters.¹²⁰ Second, even where law creates well-demarcated entitlements, uncertainty may still prevail for failure to communicate the contours of those entitlements to the public. The increasing eradication of notice provisions shows how a classically crystalline rule, the length of copyright terms, can create as much ambiguity as a muddy rule because users lack a means for ascertaining the ownership status of the resource.¹²¹ Finally, information entitlements may be unclear because of law's choice to determine the scope of ownership from an *ex post* perspective. Creators who want to develop material that may infringe on prior works of authorship have to make a speculative self-assessment of the likelihood of that infringement (influenced, presumably, by the owner's threateningly expansive assertion of the scope of its entitlements). Large stakes ride on the issue, but the resolution of the dispute takes place only after the parties have litigated the issue and a court has determined, after the fact of use, the scope of the initial entitlement.

II. CONSIDERING MUD

Two objections typically meet the suggestion that crystalline entitlements in information will benefit users of public domain resources. First, several writers have made the case that the uncertainty generated by muddy copyright rules bears the most promise for the public because they create ambiguity that hampers owners' enforcement of their copyrights.¹²² Second, others have expressed the opinion that the very project of creating clearly demarcated entitlements in copyright is incoherent because of the intangibility of information goods.¹²³ I consider each of these objections in turn.

¹²⁰ 17 U.S.C. § 107.

¹²¹ Compare Copyright Act of 1909 §§ 9, 18–19, 35 Stat. at 1077, 1079 (the original notice requirement), with 17 U.S.C. §§ 401–403, 405–406 (the liberalized notice requirements of the 1976 Act).

¹²² See, e.g., Burk, *supra* note 15, at 139 (noting that the uncertainty of the scope of copyright entitlements prevents owners from taking too hard a line with respect to potential users); cf. Jason Scott Johnston, *Bargaining Under Rules Versus Standards*, 11 J.L. ECON. & ORG. 256, 256–58 (1995) (discussing why a system of *ex post* determinations of property rights leads to more efficient bargaining *ex ante*); Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479, 493–94 (1998) (discussing open-source software as an example of avoidance of dispute resolution by informal means).

¹²³ See Shubha Ghosh, *Deprivatizing Copyright*, 54 CASE W. RES. L. REV. 387, 389 (2003) ("To conceive of copyright as essentially private property, akin to rights in land, is to ignore the important historical and realist tradition that has envisioned real property as an instrumental construct designed to pursue certain social and political goals, as opposed to

A. *The Normative Appeal of Uncertainty*

Many writers have argued that the imposition of a crystalline rule structure in intellectual property would have detrimental effects for users.¹²⁴ Dan Burk, for example, has written a strong defense of the value of muddy rules in cyberspace as well as in intellectual property more generally.¹²⁵ Burk initially acknowledges the uncertainty generated by muddy entitlements in information, but suggests that this uncertainty is beneficial because it prevents either party to the bordering entitlements (i.e., copyright owner and fair user) from driving a hard bargain that threatens to create a result out of proportion to the value generated by the agreement.¹²⁶ In the absence of confidence about the scope of ownership rights, the argument runs, owners will decline to gamble on the outcome of litigation. They will thus be less likely to engage in costly litigation and be more likely to work out private solutions informally.¹²⁷ Yet although this point relies on the degree to which uncertainty raises the costs of the *outcome* of litigation, it does not take sufficient account of the enormity of the costs of *engaging* in litigation itself, and in particular of the inability of all parties to bear the latter costs.¹²⁸ Where both parties are well-capitalized, they may indeed be equally capable of paying for expensive litigation in order to enforce their rights, recognize the other party's ability to do the same, and thus

protecting pre-social and pre-political rights."); Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1033 (2005) ("The rhetoric and economic theory of real property are increasingly dominating the discourse and conclusions of the very different world of intellectual property."); Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 971-72, 1000-04 (1990) (noting that the treatment of intellectual property as if it were real property can be problematic because its lack of physicality (or "thingness") requires the law to provide alternative concepts to take the place of physical boundaries).

¹²⁴ See Michael J. Madison, *Rewriting Fair Use and the Future of Copyright Reform*, 23 CARDOZO ARTS & ENT. L.J. 391, 396 (2005) ("Since the complexity of the copyright statute already compares unfavorably to the tax code, it seems unwise to 'solve' fair use by adding more details to the statute."); Matthew Sag, *God in the Machine: A New Structural Analysis of Copyright's Fair Use Doctrine*, 11 MICH. TELECOMM. & TECH. L. REV. 381, 435 (2005) (arguing that a flexible fair use standard is needed to allow courts to adapt copyright protection to new innovations).

¹²⁵ See Burk, *supra* note 15, at 138.

¹²⁶ See *id.*

¹²⁷ See Johnston, *supra* note 122, at 257 ("When the parties bargain over the entitlement when there is private information about value and harm, bargaining may be more efficient under a blurry balancing test than under a certain rule.").

¹²⁸ See Thomas F. Cotter, *Fair Use and Copyright Overenforcement*, 93 IOWA L. REV. 1271, 1284-91 (2008) (using a mathematical model to quantify the costs of both the results of fair use litigation and of the litigation itself).

may choose private bargaining instead of litigation to avoid unpredictable judicial resolutions.¹²⁹

It is far from clear, however, whether this equality of bargaining position is characteristic of intellectual property disputes generally. Most cases indicate that muddy entitlements tend to systematically advantage owners over users.¹³⁰ Owners' ability to threaten would-be users with injunctions or back-breaking litigation can deter even if based on dubious assertions of ownership rights.¹³¹ Occasional exceptions notwithstanding, Internet service providers faced with notice and takedown letters from the Recording Industry Association of America ("RIAA") or Motion Picture Association of America ("MPAA") almost invariably capitulate, despite the possibility that notices may state questionable claims.¹³²

Even less wealthy owners have been able to frustrate the work of later creators. For example, Lebbeus Woods—a relatively obscure American architect—discovered a resemblance between a chair he designed in the late 1980s and one that appeared in a single scene of the film *12 Monkeys*. By threatening the film's studio with an injunction,¹³³ Woods was able to extract a high six-figure settlement that dwarfed the actual damage occasioned by the purported infringement.¹³⁴ The rare

¹²⁹ Indeed, this may explain why the secondary transmitters in FIMLA were able to successfully press for entitlements to publicly perform musical works for no charge: both the owners (music publishers) and users (secondary transmitters such as retailers and restaurant owners) were relatively equally capable of bearing the expense of lobbying.

¹³⁰ See *infra* notes 64–74 and accompanying text (discussing two instances in which the muddy entitlement of fair use provided a systematic advantage to the copyright owner in negotiating with a would-be user of the work).

¹³¹ *Edwards v. Lee's Administrator*, 96 S.W.2d 1028 (Ky. 1936), is the classic bilateral monopoly case in American property law. Edwards owned land that included the entrance to a cave, but the cave itself lay beneath Lee's adjacent parcel. *Id.* at 1028–29. Under state law, this meant that Lee owned the right to exclude from the cave while Edwards owned the right to exclude from the entrance. *Id.* For either party to make money on the cave, he had to bargain with the other, creating incentives for the other to hold up the process for rents out of all proportion to the value of the other's property right. See *id.*

¹³² See Julie E. Cohen, *Pervasively Distributed Copyright Infringement*, 95 GEO. L.J. 1, 14–16 (2006) (observing that most recipients of Digital Millennium Copyright Act ("DMCA") notice and takedown letters comply regardless of whether the underlying assertion of infringement is plausible); Jennifer Urban & Laura Quilter, *Efficient Process or Chilling Effects? Takedown Notices Under Section 512 of the Digital Millennium Copyright Act*, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 621, 666 (2006) (showing that as many as 30% of notice and takedown letters under the DMCA have substantive or procedural flaws).

¹³³ *Woods v. Universal City Studios, Inc.*, 920 F. Supp. 62, 65 (S.D.N.Y. 1996). The court summarily rejected Universal's First Amendment defense and did not consider fair use because Universal did not raise the issue. *Id.*

¹³⁴ See Copyright Website, *12 Monkeys*, <http://www.benedict.com/visual/monkeys/monkeys.aspx> (last visited Oct. 26, 2008) (discussing settlement).

exceptions serve only to illustrate the point further. Carol Shloss ended up successfully settling her case against Stephen James Joyce, but only because she had the rare good fortune to secure quality pro bono representation from an interest group committed to preserving user privileges.¹³⁵ Here, the muddiness of entitlements threatens to shrink the public domain because owners almost invariably have more money than users and can take advantage of such ambiguity to press legal claims to entitlements in information to and beyond their fullest plausible extent.¹³⁶

Burk raises a second, related point, suggesting that even in the subset of cases where fuzzy entitlements lead parties to seek judicial resolution rather than private bargaining, the public domain still benefits.¹³⁷ Burk is not alone in advancing this point. Numerous critics of private reordering in intellectual property have focused on the concern that purely private decisionmaking systematically undervalues the third-party costs of such agreements.¹³⁸ To the extent that private exchange reflects the value only to the parties to the bargain and not to the public generally, this kind of bargaining structure threatens to degrade the public domain by failing to reflect the positive externalities of the uses foregone in bilateral agreements.¹³⁹ The solution is a rule structure that counteracts this disparity and allows oversight by an authority that has the public's interest in mind—such as, for example, the judiciary. Thus, to the extent that fuzzy entitlements channel more intellectual property disputes into the courts, users purportedly benefit because judges have the capacity and tendency to take into account the public values that may be left out in private bargaining.¹⁴⁰

I find this argument unconvincing for a pair of reasons. First, muddy entitlements rarely channel disputes into judicial forums. Far more often, they lead to private resolutions that end up disadvantaging

¹³⁵ See Max, *supra* note 67, at 34.

¹³⁶ Cf. Gibson, *supra* note 65, at 887.

¹³⁷ Burk, *supra* note 15, at 139–41.

¹³⁸ See Julie E. Cohen, *Copyright and the Perfect Curve*, 53 VAND. L. REV. 1799, 1806–07 (2000); Brett M. Frischmann, *Evaluating the Demsetzian Trend in Copyright Law*, 3 REV. L. & ECON. 649, 665–68 (2007).

¹³⁹ See Mark A. Lemley, *Intellectual Property and Shrinkwrap Licenses*, 68 S. CAL. L. REV. 1239, 1277 (1995) (arguing that private reordering of public law baselines through shrink-wrap agreements shortchanges the public by failing to take into account their interests).

¹⁴⁰ Burk, *supra* note 15, at 145. This is an intellectual property variation of the familiar argument that the judiciary can counteract public choice problems. See generally JOHN HART ELY, *DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW* (1980) (introducing the notion of representation reinforcement).

less wealthy users, as the above examples illustrate.¹⁴¹ But even if it were true that muddy rules increased judicial determinations of copyright ownership, it is by no means true that judges actually will take into account the public values that underlie intellectual property rights.¹⁴² Scholars have questioned the assumption that judges will necessarily do a better job of taking account of intellectual property's public values,¹⁴³ and recent cases illustrate that judges may do just the opposite, siding staunchly with owners despite strong countervailing public interests.¹⁴⁴ Moreover, as I describe below in more detail, the project of infusing intellectual property with a more determinate rule structure necessarily involves legislative establishment of owner/user entitlement boundaries.¹⁴⁵ Crafting users' entitlements through traditional democratic means provides an equally plausible means of reflecting public values in intellectual property.

A third defense of muddy rules for intellectual property entitlements is that unclear entitlements facilitate tinkering with information goods that in turn benefits the public.¹⁴⁶ Fuzzy boundaries allow users to engage in micro-takings of copyrighted information that they can then play with in ways that spur innovation.¹⁴⁷ According to this argument, sharply defined borders, by contrast, eliminate this flexibility and thus limit the scope of experimentation that might otherwise occur.¹⁴⁸ This argument depends on owners recognizing the value of this kind of user-driven creation (especially insofar as it may eventually benefit them) and tolerating the marginal incursions on their intellectual property rights on which such creation depends.¹⁴⁹

¹⁴¹ See Burk, *supra* note 15, at 139–41.

¹⁴² The most familiar indication of these values can be found in the Constitution's Intellectual Property Clause, which directs Congress to create patent and copyright legislation "to promote the Progress of Science and the useful Arts." U.S. CONST. art. I, § 8, cl. 8.

¹⁴³ Thomas B. Nachbar, *Judicial Review and the Quest to Keep Copyright Pure*, 2 J. TELECOMM. & HIGH TECH. L. 33, 67 (2003) (arguing that judges do no better than legislatures in this respect).

¹⁴⁴ See *Bridgeport Music, Inc. v. Dimension Films*, 383 F.3d 390, 398 (6th Cir. 2004) (taking a strongly owner-sympathetic position in music sampling litigation); *Ringgold v. Black Entm't Television, Inc.*, 126 F.3d 70, 76–77 (2d Cir. 1997) (holding that displaying a protected quilt in the background of a television scene for several seconds was not de minimis for the purpose of infringement analysis).

¹⁴⁵ See *infra* notes 198–258 and accompanying text (outlining ways in which intellectual property law might be made more crystalline).

¹⁴⁶ Burk, *supra* note 15, at 143–44.

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

The assumptions underpinning this argument are appealing. It would be reassuring to believe that ours is a world in which copyright owners are willing to permit small-scale impositions on their exclusive rights for the long-term good of both their particular industries and society more generally. Why would businesses not tolerate at least marginal incursions on their property rights that have the potential to create remunerative innovation in the long term? The answer may lie in a simple cost-benefit analysis: actors tend to undervalue long-term, ill-defined potential for benefits when faced with short-term, well-defined losses.¹⁵⁰

Numerous examples reveal that owners are not nearly so farsighted. Owners tend to guard their copyrights jealously, without regard for possible future benefits.¹⁵¹ The experience of the VCR provides a familiar historical example. When Sony introduced the Betamax, movie industries went ballistic at what they perceived to be a dire threat to their commercial viability.¹⁵² Jack Valenti famously called the VCR the "Boston strangler" of the movie industry.¹⁵³ But even after the Supreme Court held in *Sony Corp. v. Universal City Studios* that VCR manufacturers were not liable for copyright infringement on a secondary liability theory,¹⁵⁴ the explosion of video not only failed to destroy the entertainment industry, but turned out to be an enormous source of revenue by creating a lucrative secondary market.¹⁵⁵ The movie and music industries' more recent reaction to peer-to-peer ("p2p") filesharing indicates that their approach to innovation remains the same. Rather than viewing filesharing technology as opening up potential doors for profitable

¹⁵⁰ Michael S. Finke, *Time Orientation and Economic Decision-Making*, in UNDERSTANDING BEHAVIOR IN THE CONTEXT OF TIME 109, 109 (Alan Srathman & Jeff Joireman eds., 2005).

¹⁵¹ See LESSIG, *supra* note 21, at 95-97 (discussing Fox's heavy handed protection of its *Simpsons* material); Max, *supra* note 67, at 34 (discussing Stephen James Joyce's aggressive protection of the copyrights of his father's works); Copyright Website, *supra* note 134 (discussing Lebbeus Woods zealous protection of his work as used in the film *12 Monkeys*).

¹⁵² See *Sony Corp. of Am. v. Universal City Studios, Inc.* 464 U.S. 417, 443-47 (1984). This response was not uniform. Owners of copyrights in sports telecasts and programs that aired on public television did not join the Sony litigation because they wanted users to be able to videotape their broadcasts and watch them another time. See *id.*

¹⁵³ *Home Recording of Copyrighted Works: Hearings Before the Subcomm. on Courts, Civil Liberties, and the Admin. of Justice of the H. Comm. on the Judiciary*, 97th Cong. 8 (1983) (statement of Jack Valenti, MPAA President) ("I say to you that the VCR is to the American film producer and the American public as the Boston strangler is to the woman home alone.").

¹⁵⁴ 464 U.S. at 456.

¹⁵⁵ See *50 Years of the Videocassette Recorder*, WORLD INTELL. PROP. ORG. MAG., Dec. 2006, at 8, 10 ("[T]he film studios found themselves to be major beneficiaries of the technology as the sale and rental of movie videos began generating huge new revenue streams.").

future markets,¹⁵⁶ both the MPAA and RIAA have campaigned ceaselessly to shut down this technology—and have largely succeeded.¹⁵⁷

A fourth, and related, defense of muddled entitlements relies on Ian Ayres and Eric Talley's "Solomonic bargaining" theory, which suggests that where property entitlements are shared and owners and users tend to switch roles frequently, the result will be bargaining rather than holdouts because today's owners do not want to create a regime that will disadvantage them when they become users tomorrow.¹⁵⁸ This approach has appeal in some traditional intellectual property settings. An appropriation artist like Jeff Koons would be ill-served to take a tough stance against up-and-coming appropriation artists who take from his work.¹⁵⁹ This is because the tables may turn down the road; Koons may find that he wants to take from those artists' work when he creates his own appropriation art in the future. Given this possibility, Koons would want to assure that the doctrine remains broadly defined (and he may also want to avoid antagonizing possible future plaintiffs).¹⁶⁰

If it were true that most copyright disputes fit this "artist v. artist" model, then muddled rules might be beneficial for the public domain by deterring overly aggressive enforcement of owners' rights. But increasingly, owners and users do not switch roles in this manner.¹⁶¹ Fre-

¹⁵⁶ See LESSIG, *supra* note 21, at 66–79 (describing ways in which p2p applications may benefit entertainment industries); cf. *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 957–59 (2005) (Breyer, J., concurring) (declining to hold Grokster liable on the traditional *Sony* theory in order not to shut down possible future beneficial uses of p2p technology).

¹⁵⁷ *Grokster*, 545 U.S. at 941; *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 454 F. Supp. 2d 966, 999 (C.D. Cal. 2006) (entering summary judgment in favor of plaintiffs against final defendant Streamcast); see also David Kravets, *RIAA Jury Finds Minnesota Woman Liable for Piracy, Awards \$222,000*, WIRED BLOG NETWORK, Oct. 4, 2007, <http://blog.wired.com/27bstroke6/2007/10/riaa-jury-finds.html> (recounting successful verdict against Minnesota file sharer and noting RIAA's "zero tolerance" approach to filesharing that has led it to file 22,000 lawsuits in the last four years).

¹⁵⁸ Ian Ayres & Eric Talley, *Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade*, 104 YALE L.J. 1027, 1035, 1045 (1995).

¹⁵⁹ See *Rogers v. Koons*, 96 F.2d 301, 308–12 (2d Cir. 1992). Indeed, Koons urged a liberal interpretation of the fair use defense in response to a copyright infringement suit brought against him by photographer Art Rogers. See *id.*

¹⁶⁰ See *id.* Similarly, patentees who guard their claims with too much aggression may contribute to a world in which broadly defined owners' rights lead to "patent thickets" that complicate the development of future innovations. Carl Shapiro, *Navigating the Patent Thicket: Cross Licensing, Patent Pools, and Standard Setting*, in 1 INNOVATION POLICY AND THE ECONOMY 119, 121 (Adam B. Jaffe et al. eds., 2001).

¹⁶¹ See, e.g., *Motion Picture Ass'n of Am. v. Rated R Clothing, Inc.*, 646 F. Supp. 22, 23–25 (S.D.N.Y. 1986) (denying a preliminary injunction in a case in which the MPAA sued to enjoin a small dress manufacturing company from using its rating logo).

quent plaintiffs like RIAA and MPAA represent major players in the entertainment industry, while the defendants they typically sue are individual users whose uses of protected works of authorship are either noncommercial or at least unlikely to cut into content industries' traditional markets.¹⁶² Teenagers engaging in filesharing today are unlikely to be in charge of multimillion dollar entertainment concerns tomorrow, or anytime soon.¹⁶³ This lack of any future reciprocity means that the Ayres/Talley thesis has limited application at best.

A different answer looks to the increasingly widespread practice of patent trolling and creating "copytraps."¹⁶⁴ Owners are not necessarily creators at all and thus may be indifferent to long-term innovations. Instead, they may simply have bought up intellectual property rights strategically, hoping that eventually a user will come close enough to infringement that they can bring suit and leverage a lucrative settlement.¹⁶⁵

A final argument in favor of muddy intellectual property rules looks to Neil Netanel's writing on the nexus of copyright and democracy.¹⁶⁶ Netanel has argued that copyright enhances democracy because it enables individual (rather than government) control of the means of creative production, and because it encourages a robust dialogue re-

¹⁶² See *id.*

¹⁶³ But cf. Fred Vogelstein, *How Marc Zuckerberg Turned Facebook into the Web's Hottest Platform*, WIRED, Oct. 2007, at 188, 188-93 (discussing Marc Zuckerberg, teen hacker turned twenty-three year old Internet millionaire).

¹⁶⁴ See Ned Snow, *Copytraps*, 84 IND. L.J. 285, 286-87 (2009) (discussing deceptive practice by which owners tell users that a download is legal, when it is not, so that users are baited into violating strict liability infringement standard).

¹⁶⁵ The plaintiffs in both the MercExchange and BlackBerry/RIM cases in the patent setting fit this mold. See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 390 (2006); *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1288-90 (Fed. Cir. 2005); Eric Wesenberg & Peter O'Rourke, *The Toll on the Troll: The Implications of eBay v. MercExchange, LAW.COM*, May 22, 2006, <http://www.law.com/jsp/article.jsp?id=1147943132930> (describing both MercExchange and NTP as examples of patent trolls).

Some authors have argued that this practice is becoming commonplace in the copyright setting as well. Tim Wu, *Jay-Z Versus the Sample Troll: The Shady One-Man Corporation That's Destroying Hip-Hop*, SLATE, Nov. 16, 2006, <http://www.slate.com/id/2153961> (discussing "sample trolling," a practice similar to patent trolling, as implemented by Bridgeport, Inc.). A key difference between Bridgeport's conduct and that of the patent trolls, however, is that Bridgeport was formed in order to clear the rights to George Clinton's music catalog, which had become disorganized and conflicting. See *Bridgeport Music*, 383 F.3d at 394. Its intent was thus no different than any other music publisher that acquires copyrights in musical works: to negotiate licenses to works in the owner's catalog and to protect against unauthorized use of those works through litigation. *Id.*

¹⁶⁶ See Netanel, *supra* note 52, at 347-51.

garding political and cultural issues.¹⁶⁷ Burk takes this point a step further, arguing that it militates in favor of muddy rules for two reasons: because uncertainty enables the kind of critical dialogue that is central to copyright's democratizing effects, and because ill-defined entitlements tend to channel disputes into courts, where judges are more likely to make decisions that take public values into account when resolving ownership disputes.¹⁶⁸

This application of Netanel's theory does not seem to justify a preference for muddy rules. The first point depends on the premise that muddy rules result in a robust dialogue about copyrighted works.¹⁶⁹ Yet, increasingly owners do not tolerate trivial uses even where they lose little in the process.¹⁷⁰ The evident trend is rather to regard any use—even likely fair ones—as an affront to artistic integrity that must be deterred at all costs (or as an opportunity to instigate a strike suit and make some quick cash). Though this conduct may not make sense from the pure cost-benefit perspective that predominates U.S. copyright law, other nations' systems of moral rights may account for artists' instincts to preclude even uses of their work that cause them no economic harm.¹⁷¹ The *Else* and *Shloss* cases both illustrate the point: in each of those instances, owners leveraged their ownership prerogatives to deter productive subsequent uses that would have had a trivial impact on the owners' fiscal bottom line.¹⁷² More recently, Prince had a cease and desist letter issued to a fan who posted a YouTube video of her child dancing to his song "Let's Go Crazy."¹⁷³ The tendency of own-

¹⁶⁷ *Id.*

¹⁶⁸ Burk, *supra* note 15, at 144–45.

¹⁶⁹ See Netanel, *supra* note 52, at 347–51.

¹⁷⁰ See LESSIG, *supra* note 21, at 95–97 (discussing Fox's heavy handed protection of its *Simpsons* material); Max, *supra* note 67, at 34 (discussing Stephen James Joyce's aggressive protection of the copyrights of his father's works); Copyright Website, *supra* note 134 (discussing Lebbeus Woods's zealous protection of his work as used in the film *12 Monkeys*).

¹⁷¹ For example, Bil Keane, creator of the Family Circus, engaged counsel to take down a parody site, The Dysfunctional Family Circus. See David Cassel, *Keane KOs Family Circus Parody*, GETTINGIT.COM, Sept. 30, 1999, <http://www.gettingit.com/article/124>. Keane's rationale was not economic but relied on his instinctive distaste for the bawdiness of the parodies. See *id.*

¹⁷² See *supra* notes 66–74 and accompanying text (discussing *Else* and *Shloss* cases).

¹⁷³ See Greg Sandoval, *Mother Protects YouTube Clip by Suing Prince*, CNET NEWS, Oct. 30, 2007, http://www.news.com/8301-10784_3-9807555-7.html. In the same vein, obscure 1970s-era band the Rubinoos sued Avril Lavigne on the theory that her song "Girlfriend" infringed their song "Boyfriend," based only on a few similar chord progressions and lyrics. See Dakota Smith, *Girlfriend Trouble: Avril Gets Sued*, NETSCAPE NEWSQUAKE!, July 13, 2007, <http://newsquake.netscape.com/2007/07/13/avril-lavigne-gets-sued> (quoting one unnamed source as saying, "I wouldn't be surprised if the band received some money, say \$10,000, just to go away. Avril doesn't want this kind of attention.").

ers to use their intellectual property rights to deter rather than facilitate dialogue and communication suggests that muddy rules will undermine rather than further copyright's democratizing effects. Nor does the point about increased judicial involvement seem convincing, both because owners' strong-arm litigation tactics are designed to assure that users cannot afford to get their cases before judges,¹⁷⁴ and because judges have exhibited as much hostility as sympathy to users' claims of shared entitlements.¹⁷⁵

B. *The Coherence of Demarcating Information Entitlements*

Perhaps the most familiar and obvious way in which physical and intellectual property differ is in the character of the object governed by each body of law. Land and chattel owners, we commonly assume, possess things that exist in the physical world.¹⁷⁶ Whether the object of the property right is a plot of land, a vehicle, or any other corporeal thing, we can easily understand both the object of the owner's right and its physical boundaries. By contrast, owners of copyrights enjoy use rights with respect to abstractions that have no reference point in the physical world. Experts as well as laypeople have difficulty defining with exactitude what the extent of a copyrighted work of authorship is. Commentators have described the relationship between the work of authorship and the physical embodiment of that work as analogous to the "relationship between the soul and the body"¹⁷⁷—hardly a formulation that gives rise to a concrete understanding of the object of a copyright owner's exclusive right. The relative elusiveness of the objects of intellectual, as opposed to physical, property rights has led many writers to

Not all artists take this position. Tom Petty considered suing the Red Hot Chili Peppers because their song "Dani California" sounded virtually identical to his song "Mary Jane's Last Dance." Petty decided against litigating, though, expressing the refreshing but rare opinion that he did not mind if other artists took from his work and did not want to add to the already numerous lawsuits over pop music. See *Tom Petty Will Not Sue Red Hot Chili Peppers*, STEREOBOARD.COM, July 3, 2006, <http://www.stereoboard.com/content/view/307/9>.

¹⁷⁴ See LESSIG, *supra* note 21, at 95–97 (discussing Fox's heavy handed protection of its *Simpsons* material); Max, *supra* note 67, at 34 (discussing Stephen James Joyce's aggressive protection of the copyrights of his father's works); Copyright Website, *supra* note 134 (discussing Lebbeus Woods's zealous protection of his work as used in the film *12 Monkeys*).

¹⁷⁵ See, e.g., *Bridgeport Music*, 383 F.3d at 398 ("Get a license or do not sample.").

¹⁷⁶ See June Carbone, *Back to the Future: Intellectual Property and the Rediscovery of Property Rights—and Wrongs*, 46 ST. LOUIS U. L.J. 629, 630 (2002) (remarking that what distinguishes property from other fields of law is the "thingness" of it).

¹⁷⁷ JOYCE ET AL., *supra* note 111, at 293; see also *United States v. Smith*, 686 F.2d 234, 240 (5th Cir. 1982) ("[A] copyright is independent of both its physical manifestation and the very thing that is copyrighted.").

conclude that imposing clearly demarcated, crystalline entitlements onto physical property regimes is a conceptually incoherent, and ultimately doomed, project.¹⁷⁸

Closer examination belies this instinctive reaction. Certainly some physical property lends itself well to crystalline rule structures. As discussed earlier,¹⁷⁹ clear borders typically separate plots of land, and the UNCLOS treaty sharply defines the ocean spaces within which different legal regimes operate.¹⁸⁰ Much the same can, though, be said of intellectual property in certain respects. As discussed above,¹⁸¹ FIMLA creates a classically crystalline rule structure that determines which secondary transmitters can broadcast content from radio stations without incurring infringement liability and how they can do it.¹⁸² The rights of authorship have other, more familiar crystalline incarnations. Consider, for example, a novel. Putting aside philosophical speculation about the nature of the work of authorship embodied in the book itself, the extent of the literary work is relatively clear in at least one respect: it begins on the first page of the work and ends with the novel's final words (and authors can add to the clarity of these entitlements by describing them with specificity in their applications for registration). Some of the authors' exclusive rights enumerated in § 106 of the 1976 Act create similarly well-defined entitlements.¹⁸³ For example, little controversy surrounds the exclusive right of reproduction.¹⁸⁴ Making unauthorized verbatim copies would unambiguously amount to separate acts of infringement. And the duration of copyright—which lasts for seventy

¹⁷⁸ See, e.g., Lemley & Weiser, *supra* 20, at 794; Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 1004–07 (1990) (expressing skepticism that entitlements in incorporeal property can be defined with specificity); Long, *supra* note 58, at 499–512 (arguing that the costs of defining entitlements in patent and copyright are prohibitive for the purposes of imposing a property rights regime); Sterk, *supra* note 58, at 1327–32 (illustrating that, at present, the costs of determining copyright entitlements are prohibitively high). But see Smith, *supra* note 1, at 1795 (“In the case of intellectual property, the ‘things’ that are the objects of the right to exclude need to be constructed, but the problems of delineation costs are not fundamentally different from those prevailing in property generally—despite frequently expressed worries to the contrary.”).

It also bears noting that the literature suggesting that determination of entitlement boundaries in copyright is prohibitively costly assumes status quo rules for determining those boundaries. The purpose of this project is to suggest revisions to copyright law that would make the process of boundary definition less onerous.

¹⁷⁹ See *supra* notes 39–45 and accompanying text.

¹⁸⁰ UNCLOS, *supra* note 50, art. 3.

¹⁸¹ See *supra* notes 55–56 and accompanying text.

¹⁸² 17 U.S.C. § 110 (2006).

¹⁸³ See, e.g., *id.* § 106(1) (providing authors the exclusive rights of reproduction).

¹⁸⁴ See *id.*

years after the death of the author—also has the virtue of non-ambiguity.¹⁸⁵

The point is not, and indeed cannot be, that intellectual property law's entitlements are described with the same degree of clarity as those typical of physical property. Fair use, substantial similarity, and the useful articles doctrines all illustrate the difficulty of defining copyright owners' and users' rights in information. But it bears noting that these issues are not exclusive to intellectual property law. Real property has its share of muddled rules as well. Nuisance provides one such example. An owner's right to use his property is constrained by a duty not to do so in a way that is unreasonably harmful to his neighbors—hardly a clear indication of the scope of ownership rights.¹⁸⁶ Other muddy physical property rules include takings, easements by public necessity, and whether covenants run with the land.¹⁸⁷

These examples drawn from doctrine undermine the assumption that imposing crystalline rule structures on intellectual property is intrinsically impossible. But this assumption is flawed also because it rests on an unsound theoretical foundation. As the legal realists showed decades ago, property law—intellectual or otherwise—does not govern objects, but people.¹⁸⁸ More specifically, property creates legal relations between people with respect to particular objects.¹⁸⁹ Thus I may have rights of use, exclusion, and transfer with respect to a given plot of land, but those rights make sense only with respect to other actors. The right to exclude gives me a legally enforceable claim to prevent others from entering my land. The right to use gives me a legally enforceable claim to stop others from doing so, though it may be limited by specific or general countervailing privileges, such as an easement. The architec-

¹⁸⁵ 17 U.S.C. § 302 (2006).

¹⁸⁶ See *Prah v. Maretti*, 321 N.W.2d 182, 192 (Wis. 1982).

¹⁸⁷ See, e.g., *Kelo v. City of New London*, 545 U.S. 469, 480–90 (2005) (demonstrating the muddy nature of the judicial determination of what constitutes a “public purpose” under the Takings Clause); *Matthews v. Bay Head Improvement Ass’n*, 471 A.2d 355, 365–66 (N.J. 1984) (showing the ambiguities inherent in determining when an easement by public necessity is warranted); *Green v. Lupo*, 647 P.2d 51, 53–54 (Wash. Ct. App. 1982) (illustrating the ambiguity courts face in determining whether a covenant runs with the land).

¹⁸⁸ See Felix S. Cohen, *Dialogue on Private Property*, 9 *RUTGERS L. REV.* 357, 373 (1954) [hereinafter Cohen, *Dialogue*] (“Private property is a relationship among human beings such that the so-called owner can exclude others . . .”); Morris R. Cohen, *Property and Sovereignty*, 13 *CORNELL L.Q.* 8, 13 (1927) [hereinafter Cohen, *Property*].

¹⁸⁹ See Cohen, *Property*, *supra* note 188, at 13; A.M. Honoré, *Ownership*, in *OXFORD ESSAYS IN JURISPRUDENCE* 107, 128–34 (A.G. Guest ed., 1961) (emphasizing that ownership describes relations between persons and other persons, not between persons and objects of ownership).

ture of intellectual property is no different. Ownership of a work of authorship creates a series of legal relations that take the form of exclusive rights. A copyright owner can prevent others from reproducing, adapting, publicly distributing, performing, or displaying the work, all subject to certain user privileges described by the fair use and first sale doctrines, as well as the largely user-oriented rights limitations of § 110 of the 1976 Act.¹⁹⁰

The common understanding that creating clear entitlements in information is impossible seems to conflate the object of property with the legal relation itself. In everyday language, we tolerate this usage. Even the most technically oriented lawyer understands that an angry landowner who tells a trespasser, "Get off my property!" is referring to the land itself and does not want the interloper to get off of a legal relationship. In this case, however, this is a distinction with a difference. Critics of crystals appear to assume that because the object of the property relation is amorphous, the property relations concerning those objects must be as well.¹⁹¹ Yet this need not be the case. Knowing with certainty where one's land begins and ends at particular points in the physical world does not completely determine the scope of one's ownership rights; it is merely the beginning of the answer to that question. This is because it is legal rules that are crystalline or muddy, not their objects.¹⁹² This insight traces to the Legal Realists, and reached its substantive apotheosis (with respect to property law, at least) during the New Property movement of the 1960s.¹⁹³ New Property rejected the notion that ownership was necessarily limited to corporeal objects in the physical world, instead recognizing that the no-

¹⁹⁰ See 17 U.S.C. §§ 106–107, 109(a), 110.

¹⁹¹ See, e.g., Litman, *supra* note 123, at 1004–07 (1990) (expressing skepticism that entitlements in incorporeal property can be defined with specificity).

¹⁹² See Michael J. Madison, *Law as Design: Objects, Concepts, and Digital Things*, 56 CASE W. L. REV. 381, 384–85 (2005) (pointing out the separation of the things governed by law and the relations created by law, but observing that the two are increasingly commingled). But cf. W.V.O. Quine, *Ontological Relativity*, in *ONTOLOGICAL RELATIVITY AND OTHER ESSAYS* 26, 39–68 (1989) (arguing that the "real" and the "synthetic" are not meaningfully separate but rather occupy two points on a continuum).

¹⁹³ See Cohen, *Dialogue*, *supra* note 188, at 373 (demonstrating the legal realist position that property law fundamentally governs people, not things); Charles A. Reich, *The New Property*, 73 YALE L.J. 733, 739–56 (1964) (outlining the New Property movement's position that property need not be physically tangible).

tion of property could include any legally enforceable expectation,¹⁹⁴ including even abstract but meaningful entitlements like welfare.¹⁹⁵

Another criticism of the project of creating crystalline rules to govern copyright concedes that it may be possible to draw clear lines around information entitlements, but that the cost of creating such rules makes any such efforts prohibitive.¹⁹⁶ This variation seems more plausible, at least because it is phrased in less absolute terms. Still, it relies on the assumption that law does something foundationally different when it governs abstract as opposed to physical objects, an assumption that is suspect for all the reasons discussed above. The costs of imposing crystalline rule structures has not proven excessive in the context of FIMLA or the various other unattended ways in which entitlements in information have been well demarcated.¹⁹⁷

Property law—intellectual or otherwise—creates the entitlements that owners have in the objects that they colloquially refer to as “their property.” Books, dirt, and chairs are things in the physical world, but copyrights, real property, and chattels are all products of our positive law. The things governed by them, though, exist separately, regardless of whether they have a physical embodiment. Just as land and personalty would exist in a world without law, so would the products of invention and creation. Law itself, not law’s object, generates the crystalline or muddy character of rules governing ownership. So although real and chattel property doctrine tends to be characterized more frequently by sharply demarcated entitlements, these rule structures are not necessarily exclusive to those forms of property, and in turn should not be taken to imply that they cannot be coherently applied to intellectual property where feasible. Ultimately, though, it may be most effective to illustrate this latter point through a series of examples that show how copyright law can be modified to create clear rule structures despite the abstract nature of the underlying resource.

III. OPERATIONALIZING CRYSTALS: THREE EXAMPLES

Part II of this Article attempted to show, at a high level of generality, how the project of crystallizing entitlements in information could benefit users as well as owners. This Part seeks to make this point on a

¹⁹⁴ See Reich, *supra* note 193, at 739–56 (describing a theory of property rooted in expectation of entitlements, regardless of the physical character of the owned object).

¹⁹⁵ See *Goldberg v. Kelly*, 397 U.S. 254, 262 n.8 (1970) (“It may be realistic today to regard welfare entitlements more like ‘property’ rather than a ‘gratuity.’”).

¹⁹⁶ See Long, *supra* note 58, at 499–512.

¹⁹⁷ See *supra* notes 55–56 and accompanying text.

more practical level, presenting three ways in which converting intellectual property to a more traditional "property-like" regime could come to the aid of users. It does so in three steps, tracking the problems created by the muddy rules outlined in Subpart B of Part I. First, this Part considers the problem of converting archetypically muddy rules into crystalline ones and addresses the problem of fair use in particular. Second, it looks at the related issue of enhancing extant crystalline rules by communicating their boundaries clearly to the public, and, in so doing, looks at the decline of copyright notice and the orphan works issue. Finally, this Part examines possibilities for enhancing owners' and users' understanding of boundaries by shifting from *ex post* to *ex ante* determinations of entitlements in information, and it applies this in particular to the problem of substantial similarity and defining the contours of copyright owners' entitlements.

A caveat: the incorporeal character of information may well mean that it likely cannot be subjected to the kinds of unambiguous, mutually understood borders that tend to characterize land or chattels. My project should thus be understood not as an attempt to make all borders surrounding information entitlements perfectly clear, but as an effort to explore how such entitlements might be made more rather than less crystalline, and how this move might benefit users as well as owners.

A. *Converting Mud to Crystals*

The most straightforward way to impose a crystalline sense of order on otherwise muddy entitlements in information would be simply to change a legal rule that is phrased in terms of standards and convert it to one that is phrased in terms of rules. In some cases, it is impossible to imagine how this might work. The notion of originality in copyright, for example, does not rely on notions that can be readily quantified and thus likely eludes reduction to crystalline form in this manner.¹⁹⁸ But one area of intellectual property that may be expressed in terms conducive to rules rather than standards is one that, somewhat ironically, has been codified in the muddiest form possible: copyright's fair use defense.¹⁹⁹

¹⁹⁸ See Litman, *supra* note 123, at 1006–07 (relating a fable in which city officials determine the disputed ownership of a cherry tree by testing which of its two purported owners can bake a better cherry pie, and using the fable as an analogy for the indeterminacy of originality in copyright).

¹⁹⁹ 17 U.S.C. § 107 (2006).

Consider the possibility of establishing benchmarks that define ceilings below which the public is entitled to take from proprietary works of authorship. Gideon Parchomovsky and Kevin Goldman, for example, have suggested legislation that would define as presumptively fair takings of less than 100 words from a literary work, ten seconds of a sound recording, or thirty seconds from a film or other audiovisual work (and in no case more than ten to fifteen percent of these works).²⁰⁰ This approach provides users with an easily understood and unambiguously defined line below which they can safely assume that courts will not regard their conduct as infringing.²⁰¹

Here, delimiting the boundary between permissive and non-permissive uses of protected works of authorship—the use of a classically crystalline rule structure that is characteristic of the kinds of sharp borders that characterize physical property—inures to the benefit of users, not just owners. In a world characterized by fair use benchmarks, users would be much freer to incorporate minimal snippets of copyrighted material into their works. Scholars who wanted to quote a fifty-word portion of a James Joyce letter could do so, and Steven James Joyce's threats to sue would ring hollow because the taking would be clearly fair.

This approach would not, of course, render crystalline all of fair use doctrine. It works effectively when the infringement is a wholesale taking of part of one work for inclusion into another. But when the character of the taking is less clear, benchmarks may not furnish a workable approach. For example, benchmarks may not tell us how to approach a case where a trivia book incorporates several different "facts" about a fictional show,²⁰² or where an online image indexer

²⁰⁰ See Gideon Parchomovsky & Kevin Goldman, *Fair Use Harbors*, 93 U. PA. L. REV. 1483, 1511–18 (2007).

²⁰¹ The legal regimes of other nations, such as Argentina, explicitly incorporate these sorts of objective benchmarks. *E.g.*, Law No. 11,723, Sept. 28, 1933, B.O. 30/09/1933 (Arg.), available at http://www.wipo.int/clea/en/text_html.jsp?lang=EN&id=82 (permitting a person to publish, for didactic or scientific purposes, comments, criticisms, or notes referring to intellectual works, including up to 1000 words for literary or scientific works, or eight bars in musical works).

²⁰² See, *e.g.*, *Castle Rock Entm't, Inc. v. Carol Publ'g Group*, 150 F.3d 132, 138–41 (2d Cir. 1998) (holding that a trivia book based on the television show *Seinfeld* that referred to characters from the show, incorporated incidents in eighty-four episodes of the show, and used snippets of dialogue from the show was not a fair use). Elements of the *Seinfeld* trivia book may have been susceptible to the benchmarks approach, though, such as the use of actual dialogue.

creates and displays thumbnails of protected images online.²⁰³ In neither of these instances is the taking readily reducible to a percentage total. Nor would the benchmarks approach necessarily change matters even for sympathetic plaintiffs such as the creators of the famous civil rights documentary *Eyes on the Prize*, which took much more substantially from protected works and likely exceeded fair use benchmarks in many instances.²⁰⁴ Also left out would be some parody cases, which often take an abstract amount, rather than some fixed percentage of the protected work.²⁰⁵ Where, however, the element of taking in a parody can be described in objective terms, the benchmark approach would furnish a helpful rubric.²⁰⁶

The preference for muddiness in the fair use setting looks a lot like the general preference for muddy rules in copyright. One suggestion is that muddy fair use rules help users by inviting judicial reallocation in their favor.²⁰⁷ But the presence of courts does not necessarily result in the preservation of fair uses. As discussed above, courts may take a hard-line licensing approach despite the presence of the fair use defense, erroneously assuming that the common practice of licensing means that owners are entitled to licenses even when uses are fair.²⁰⁸ Another potential advantage of muddy fair use rules is that they allow courts to adapt the defense to new innovations.²⁰⁹ It is certainly true that statutory baselines would be slower to adapt to change than factor-

²⁰³ Kelly v. Arriba Soft Corp., 336 F.3d 811, 817–22 (9th Cir. 2003) (holding that thumbnail indices of protected images constituted fair use).

²⁰⁴ Katie Dean, *Bleary Days for Eyes on the Prize*, WIRED, Dec. 22, 2004, <http://www.wired.com/culture/lifestyle/news/2004/12/66106>.

²⁰⁵ See SunTrust Bank v. Houghton Mifflin Co., 252 F.3d 1165, 1165–66 (11th Cir. 2001) (vacating, on First Amendment grounds, an injunction against the publication of a purportedly infringing parody of *Gone With the Wind* told from slaves' points of view); Dr. Seuss Enters., L.P. v. Penguin Books USA, Inc., 109 F.3d 1394, 1399–1403 (9th Cir. 1997) (holding that a satire of the O.J. Simpson case based on Dr. Seuss's *Cat in the Hat* books did not constitute defensible fair use).

²⁰⁶ See, e.g., Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 594 (1994) (holding that 2 Live Crew's parody of Roy Orbison's "Oh Pretty Woman" could be defensible as fair use where the parody borrowed only the opening musical phrase and the words of one line of the original work); Fisher v. Dees, 794 F.2d 432, 439–40 (9th Cir. 1986) (holding that a musical parody was defensible fair use where it borrowed only twenty-nine seconds of the original song).

²⁰⁷ Burk, *supra* note 15, at 140 ("The 'muddy' four-part balancing standard of fair use allows courts to reallocate what the market cannot.").

²⁰⁸ See Gibson, *supra* note 65, at 887 (discussing feedback loops between licensing practices and the judiciary); cf. Bridgeport Music, Inc. v. Dimension Films, 383 F.3d 390, 398 (6th Cir. 2004) ("Get a license or do not sample.").

²⁰⁹ Sag, *supra* note 124, at 412 ("[F]air use provides a point of flexibility in copyright law that facilitates adjustment to unforeseen changes.").

based judicial tests are. But whether the rate of change helps or hurts users is another issue entirely. Indeed, several scholars have argued that fair use as developed by judges before and after its statutory instantiation has done more to benefit owners by making fair use seem like a marginal and exceptional element of copyright doctrine rather than a central and organic part of it.²¹⁰

B. *Facilitating Awareness of Clear Borders*

The notion of crystallizing fair use by incorporating determinate benchmarks for legitimate takings relies on a fairly straightforward formula: take standards, and replace them with rules. This operates well in the fair use setting because users and owners alike can look to positive law to determine the limits of legitimate appropriation.²¹¹ A different problem arises where the positive law creates clearly defined entitlements but fails to provide the mechanisms by which the relevant actors can perceive the boundaries of those entitlements. This is a second-order issue: an information problem that blocks the functioning of well-defined entitlements in information.

As discussed in more detail above, the orphan works issue is just such an information problem. Users who cannot identify the owner or copyright status of a work face prohibitive risks of infringement.²¹² The major proposed legislative solution to this problem focuses on mitigating damages that owners can recover against users who have engaged in reasonably diligent title searches.²¹³ This idea is a reason-

²¹⁰ John Tehranian, *Et Tu, Fair Use? The Triumph of Natural-Law Copyright*, 38 U.C. DAVIS L. REV. 465, 466 (2005) ("[T]he fair use doctrine has actually enabled the expansion of the copyright monopoly well beyond its original bounds and has undermined the goals of the copyright system as envisioned by the Framers of the Constitution."); cf. Sag, *supra* note 124, at 420 (arguing that seeing fair use as market failure marginalizes the defense to the benefit of owners).

²¹¹ Here, I am assuming that the fair use benchmarks discussed above would be enacted as statutes, but of course they could also be promulgated as regulations by the Register of Copyrights.

²¹² The Register of Copyrights identified four main reasons for the orphan works problem, each of which is rooted in owners' inadequate information about copyright ownership and status: "(1) inadequate identifying information on a copy of the work itself; (2) inadequate information about copyright ownership because of a change of ownership or a change in the circumstances of the owner; (3) limitations of existing copyright ownership information sources; and (4) difficulties researching copyright information." U.S. COPYRIGHT OFFICE, REPORT ON ORPHAN WORKS 22 (2006), available at <http://www.copyright.gov/orphan/orphan-report.pdf>.

²¹³ *Id.* at 69–92; *Senate Judiciary OKs Orphan Works Bill with Exemption for "Useful Articles,"* 76 PAT. TRADEMARK & COPYRIGHT J. (BNA) No. 1869, at 112 (May 23, 2008). At the time of writing, largely similar versions of the Shawn Bendley Orphan Works Protection Act of 2008

able and necessary way to solve past instances of the orphan works issue, but it does nothing to assure that this problem will not arise in the future because it does not address the underlying problem of orphan works: fuzzy entitlements that could be cured by sharpening the boundaries of owners' rights in a way that would benefit users by making clear what information the public is free to use. Reintroduction of formalities could achieve this result in a pair of ways.

One obvious approach to clarifying copyright entitlements and preventing future orphan works problems from arising would be simply to shift back to a copyright regime that requires authors to opt in for protection rather than one in which rights vest upon creation of a work.²¹⁴ Yet a wholesale reversion to a regime that required formalities would be in tension with the Berne Convention, which requires that member nations cannot terminate copyright on the basis of noncompliance with formalities.²¹⁵ But it might be possible to adjust owners' entitlements in the event of their noncompliance with formalities in ways that fall short of wholesale termination. Chris Sprigman, for example, has hatched a clever means of reintroducing copyright formalities without offending the Berne Convention.²¹⁶ The Copyright Office could make availability of the full panoply of copyright remedies—actual damages, statutory damages, and attorney fees—contingent on compliance with registration, notice, and recordation provisions.²¹⁷ Authors who fail to comply would still enjoy copyrights, but these rights

had advanced out of a House subcommittee and had been passed by the Senate. See S. 2913, 110th Cong. (as passed by Senate, Sept. 26, 2008); H.R. 5889, 110th Cong. (as introduced, Apr. 24, 2008). The bills provide that in the event that a user of an orphan work has engaged in a good faith effort to locate the work's owner, the owner's remedies are limited to "reasonable compensation" in cases of civil infringement. See S. 2913 § 2; H.R. 5889 § 2; see also 154 CONG. REC. S9867–69 (daily ed. Sept. 26, 2008) (statement of Sen. Whitehurst) (introducing the Senate version of the proposed bill into the record). In contrast to an earlier, failed version of orphan works legislation proposed soon after the Copyright Office's 2006 report, the Bentley Act adds a variety of additional qualifications and limitations on the scope of infringement, in part to mitigate concerns raised by textile and visual arts industries. See *Orphan Works Legislation Passes Senate by Unanimous Consent, Forwarded to the House*, NAT'L PRESS PHOTOGRAPHERS ASS'N, Sept. 30, 2008, available at http://www.nppa.org/news_and_events/news/2008/09/orphan03.html.

²¹⁴ As discussed above, an author seeking copyright protection was previously required to comply with certain statutory formalities and thus had to "opt-in." See MERGES ET AL., *supra* note 79, at 405–10 (outlining copyright law's evolution with respect to formalities).

²¹⁵ Berne Convention for the Protection of Literary and Artistic Works art. 5(2), Sept. 9, 1886, revised July 24, 1967, 828 U.N.T.S. 221 [hereinafter Berne Convention] (prohibiting formalities as a condition of the "enjoyment and exercise" of an author's rights).

²¹⁶ Sprigman, *supra* note 87, at 554–57.

²¹⁷ *Id.* (discussing this system of "new-style formalities," which actually seem more like old-style formalities with a new-style enforcement scheme).

would be enforceable only through a default license so that infringers could use the work so long as they pay a nominal statutory fee.²¹⁸ The result would be a compulsory license that simplifies the government's role in price-setting. Authors who expect only a trivial return on their works would simply accept the license fees, while authors who expect a more generous return would take the trouble to comply with the formalities in order to enforce their more valuable entitlements.²¹⁹

Sprigman's proposal provides a way to reintroduce copyright formalities at the moment of copyright inception in a way that is likely consistent with the United States's Berne obligations.²²⁰ The proposal provides an example of how crystalline, property-like governance structure can benefit the public as well as private owners. Among the various formalities relevant to this project, notice is the most important, particularly in light of the fact that the Copyright Act still substantially incentivizes both registration and recordation. A U.S. owner cannot file suit without first registering the copyright,²²¹ and registration upon creation preserves the possibility of recovering both statutory damages and attorney fees.²²² Recordation also protects parties from being duped in multiple-transfer situations²²³ and provides prima facie evidence of a transfer's validity.²²⁴ By contrast, notice does little for authors save for negating an innocent infringement defense, which does not provide a full defense to infringement but rather serves only to mitigate statutory damages.²²⁵ The 1976 Act and its subsequent revisions de-emphasized the one formality that played the largest role in apprising the public of a work's copyright ownership status—notice.²²⁶ Efforts to reintroduce formalities at the inception of

²¹⁸ *Id.* at 555.

²¹⁹ *Id.* at 556.

²²⁰ *Id.* at 556–65.

²²¹ 17 U.S.C. § 411(a) (2006).

²²² *Id.* § 412. Registration also provides prima facie evidence of a copyright's validity. *Id.* § 410(c).

²²³ *Id.* § 205(d).

²²⁴ *Id.* § 205(c).

²²⁵ *Id.* §§ 401(d), 402(d) (notice negates innocent infringement); *id.* § 504(c) (innocent infringement mitigates statutory damages). Moreover, failure to include notice can be cured even years after the failure took place. *Id.* § 405(a)(2) (allowing owners to cure failures to include notice if registration is made within five years of publication and "a reasonable effort is made to add notice to all copies . . . that are distributed to the public in the United States after the omission has been discovered").

²²⁶ Rather than its previous requirement of notice, the copyright statute—as amended by the 1976 Act—now states that a notice of copyright "may be placed on publicly distributed copies." See 17 U.S.C. § 401(a) (emphasis added).

ownership should take care to focus on notice, which promises to do much to give information entitlements a more crystalline character.

The reintroduction of formalities as works enter their terms of protection will do much to crystallize ownership and benefit the public by decreasing future orphan works issues. Of equal importance, though, is the extent to which formalities govern a work's exit from private ownership into the public domain. Simply reintroducing formalities at the inception of copyright would do much to ameliorate this problem. Notice, in particular, would advise users of the date on which a work became proprietary and of the individual whose life measures its term of protection. But given the length of current terms, most works will cease to have any value to their authors well before the term ends, and notice alone cannot cure this problem.²²⁷

Again, muddy entitlements—or at least, poorly demarcated ones—create information problems for a public that seeks to identify the boundaries of copyright ownership. The solution lies in crystallization of these entitlements by demarcating them in an easily discernible manner. One promising approach would be to slice up the unitary copyright term into several periods (much as the pre-1976 Act terms were all bifurcated with a second term contingent on compliance with renewal formalities).²²⁸ Renewal would be contingent on meeting nominal registration requirements so that authors indifferent to keeping their work protected would let it fall into the public domain while authors keen on preserving protection could do so with ease. The proposed Public Domain Enhancement Act ("PDEA") furnishes one such example.²²⁹ The PDEA would require that beginning in the fiftieth year of a copyright term, owners pay a \$1 fee every ten years to maintain copyright protection.²³⁰ The overwhelming majority of works, which lack commercial value by their fiftieth year, would fall into the public domain under such a scheme, while the remainder of works could easily remain copyrighted if their owners complied with the minimal for-

²²⁷ See *supra* notes 79–97 and accompanying text (discussing the orphan works problem).

²²⁸ Copyright Act of 1909, ch. 320, §§ 23–24, 35 Stat. 1075, 1080–81 (repealed 1976) (granting a first term of protection of twenty-eight years from the date of first publication that could be renewed in the final year for a second term of twenty-eight years under the 1909 Act).

²²⁹ See H.R. 2408, 109th Cong. § 3 (2005); H.R. 2601, 108th Cong. § 3 (2003).

²³⁰ H.R. 2408 § 3; H.R. 2601 § 3.

malities.²³¹ Introduced in both 2003 and 2005 with bipartisan support, the PDEA met with heavy opposition from film industry lobbyists and has never moved out of committee.²³²

One of the major objections to this legislation is that it would necessitate expansion of copyright's registration apparatus so that users could determine whether a given work had been renewed by its owner.²³³ The point accurately observes that in the absence of a means for the public to gain information about a work's ownership status, crystalline rules lack any force. But this hardly seems an objection to the project of crystallizing the public domain, and instead seems like a positive suggestion for how to make these efforts more effective. Indeed, advocates of increased formalities have suggested that the Copyright Office create a public database of copyrighted works in order to centralize and publicize their ownership status as a means of buttressing the public advantages brought by more formality.²³⁴

C. *From Ex Post to Ex Ante Entitlement Definition*

As these localized examples illustrate, some of copyright law can be converted from mud to crystals in ways that enhance the public domain. But are these merely isolated instances? One could argue that the above two examples are exceptional and that the vast majority of copyright entitlements are intrinsically muddy, incapable of being made into anything like crystalline entitlements.²³⁵ As discussed above, though, creating property-like entitlements in information takes several forms. The preceding two sections related to the creation of clearly demarcated

²³¹ See LESSIG, *supra* note 21, at 252–53 (discussing the MPAA's opposition to the PDEA's proposed requirement of one-dollar payments in exchange for extended protection).

²³² Richard Posner and Bill Landes have proposed a similar alternative. See William M. Landes & Richard A. Posner, *Indefinitely Renewable Copyright*, 70 U. CHI. L. REV. 471, 473 (2003). One would allow authors to renew copyright terms indefinitely, but only if they opted to do so and complied with applicable formalities. *Id.* This would mean that most valueless works would enter the public domain while very valuable ones never would. See *id.* The possibility of infinite copyright terms raises obvious constitutional problems.

²³³ LESSIG, *supra* note 21, at 253 ("[T]he MPAA argued that the bill would impose 'enormous' costs, since a registration system is not free.").

²³⁴ See *id.* at 287–92; Sprigman, *supra* note 87, at 568 (suggesting that reformation of copyright be accompanied by a "compliance system making use of the best technology available").

²³⁵ See Lloyd L. Weinreb, *Fair Use*, 67 FORDHAM L. REV. 1291, 1301 (1999) (arguing that the multi-factored, situation-dependent character of fair use renders futile any attempts to make the doctrine determinate).

boundaries, or facilitating awareness of such well-defined borders.²³⁶ Another means by which copyright owners' rights might be made more crystalline, however, is by allowing their contours to be established before litigation, so that parties have some *ex ante* sense of whether their use will overstep boundaries, rather than forcing all parties to guess about this issue and wait for a court to determine it through litigation.

Of course, the very notion of crystallizing the substantial similarity inquiry that lies at the heart of infringement analysis seems counterintuitive. With fair use, courts express hopelessness at creating anything like an objective, easily understood rule for when a potentially infringing work is too similar to a preexisting one.²³⁷ My claim here is thus modest. Although the contours of copyright entitlements cannot be made perfectly crystalline, there is a coherent way to decrease the high degree of uncertainty that now plagues this inquiry by allowing it to be resolved, at least to an extent, prior to litigation. The suggestion is inspired by the Securities and Exchange Commission's issuance of "no-action letters" to companies who ask the Commission to opine on whether a particular merger or reorganization violates applicable regulations.²³⁸ This institution allows actors to have some sense of the legality of their conduct. An analogous institution should exist in the copyright context, such that authors could ask the Copyright Office to render an opinion on whether their works infringe a copyright in advance of litigation. These opinions would allow creators to have a higher degree of confidence whether their work infringes preexisting copyrighted material, and—more importantly—would permit this issue to be resolved through a quick administrative procedure *before* having to engage in extensive and costly litigation.

Consider the following proposal. The Copyright Office would create three-person infringement boards staffed by attorneys with extensive copyright expertise. The board members would be appointed by the heads of each respective agency to five-year renewable terms. Users or owners could seek preliminary determinations that a given work of authorship infringes a preexisting work. The opposing party would be

²³⁶ See *supra* notes 198–234 and accompanying text.

²³⁷ See *Meeropol v. Nizer*, 417 F. Supp. 1201, 1241 (S.D.N.Y. 1976) ("[T]here are many cases in which either because the relevant facts are in dispute or because the question is sufficiently close as to turn of necessity on the subjective judgment of the specific trier of fact it will be impossible for the court to find that there is fair use as a matter of law."), *aff'd in part & rev'd in part*, 560 F.2d 1061 (2d Cir. 1977).

²³⁸ U.S. Secs. & Exchange Comm'n, No Action Letters, <http://www.sec.gov/answers/noaction.htm> (last visited Oct. 26, 2008) (describing this practice).

given notice and an opportunity to participate. The proceedings would be restricted to a paper record, in order that the hearings not supplant the entirety of future litigation. The boards would, after reviewing the parties' submissions, issue one of three findings: probably infringing, probably not infringing, or no opinion. These findings would not be issue-preclusive in subsequent litigation. Rather, the first two conclusions would generate a strong presumption in subsequent litigation in the direction of the finding; the third would give rise to no presumption. I prefer this tripartite structure in order to restrict the role of the infringement boards to resolving only easy cases of infringement or noninfringement, and to preserve for more complete litigation the resolution of more complex issues. Findings probable noninfringement would issue only in cases where the underlying claim was largely implausible, so that users could push back against bogus claims of infringement that might otherwise deter them from engaging in a use to which they were entitled. Hard infringement cases would remain the subject of federal litigation.²³⁹

One can imagine a variety of practical objections to these infringement boards. First, one could object that attempting to resolve all infringement issues from an *ex ante* perspective would be far too large an undertaking for an administrative agency because the question of infringement looms centrally in a significant portion of copyright litigation. It is for this reason that I prefer boards whose role is limited only to resolution of easy cases. The uncertainty problems I outline above all deal with scenarios in which owners leverage implausible claims into threats of litigation that preclude legitimate uses. The function of the infringement boards I suggest would be to weed out those implausible infringement claims to avoid wrongful accre-

²³⁹ Recent work by Michael Carroll has proposed a similar mechanism to enhance the *ex ante* clarity of copyright entitlements, albeit in a different context. See Carroll, *supra* note 60, at 1122–28 (2007). Carroll suggests that the Copyright Office establish a three-member fair use board to determine, also after summary proceedings, whether a particular use of a work of authorship is infringing or protected under the fair use defense. *Id.* at 1123. Carroll's project differs from mine in several salient respects. First, it is limited to resolution only of fair use controversies. *Id.* Second, the conclusions of Carroll's fair use board would be conclusive and binding in future litigation (albeit only with respect to the particular user). *Id.* Finally, Carroll outlines a more extensive procedure by which federal courts would review decisions of his fair use board, while my proposal suggests no review at all. *Id.* at 1127–28. Other writers have suggested similar ways to sharpen *ex ante* entitlement definition, such as treating public resources as a trust to be administered by third parties. See Dan L. Burk & Julie E. Cohen, *Fair Use Infrastructure for Rights Management Systems*, 15 HARV. J. L. & TECH. 41, 61–65 (2001) (discussing a "key escrow" approach to mediating access to public domain resources).

tion of owners' rights at the expense of subsequent creators. The boards would thus decline to state an opinion in hard cases in order to preserve the resolution of these controversies to more extensive federal litigation. Also, to echo a point Carroll makes in discussing his analogous proposal, the procedures of the boards must be limited to material submitted on paper in order that these administrative proceedings not replicate the kind of extensive proceedings that characterize most infringement lawsuits.²⁴⁰

The other major objection is that the advisory nature of the boards' decisions would render them ineffective as shields that users could employ against threats of aggressive litigation by owners.²⁴¹ It is true that in close cases, the resolution of the boards would be irrelevant, but this is unrelated to the concern raised in this Article about well-capitalized owners pressing *implausible* claims to deter legitimate uses. And in easy cases of infringement or noninfringement, the board's findings would have a meaningful practical effect: a presumption in favor of the prevailing party that would be effective in any subsequent litigation. Deep pocketed owners could still threaten to litigate despite adverse rulings that a particular use is noninfringing, but they would be significantly less likely to do so, and users who might otherwise be cowed by uncertainty about the legality of their use would be heartened by the ruling in their favor and more likely to engage owners in litigation.²⁴² Finally, the presence of the boards' letters on their respective agencies' websites would create a body of

²⁴⁰ This point, though, raises a concern with Carroll's proposal. My infringement boards would not be required to resolve all controversies brought before them, so that if the papers simply did not provide enough information, they could defer to full litigation. Carroll's proposal, however, would have the board resolve all fair use controversies on limited papers submitted by the parties (as well as witness testimony with respect only to market substitution). See Carroll, *supra* note 60, at 1123. This seems to raise the troublesome possibility that judges would be required to resolve hard, fact-intensive fair use issues on an attenuated evidentiary record.

²⁴¹ Much of this concern calls on the failed experiment of the "Classroom Guidelines" that were developed in order to give some determinate sense of what kinds of uses were fair in educational settings. See H.R. REP. NO. 94-1476, at 68-70 (1976), as reprinted in 1976 U.S.C.C.A.N. 5659, 5681. The Guidelines lack force of law and have had little influence on judges' application of § 107. See Kenneth D. Crews, *The Law of Fair Use and the Illusion of Fair-Use Guidelines*, 62 OHIO ST. L.J. 599, 615-19 (2001) (discussing the failure of the Classroom Guidelines).

²⁴² The same is true for prevailing owners, of course. Users asserting implausible claims of fair use, hoping that owners would not take the trouble to litigate, would be deterred by board rulings of likely infringement.

helpful guiding material to users engaging in similar uses, much like SEC no-action letters or IRS private letter rulings.²⁴³

One can also imagine possible constitutional objections to this proposal. A structural, separation-of-powers objection would be that enabling a branch of Congress,²⁴⁴ rather than federal courts, to resolve the rights of parties amounts to an unconstitutional diminution of judicial power to resolve cases and controversies. My proposal, however, does not suggest boards that would conclusively resolve parties' rights. Although copyright no-action letters would, in some cases, affect the outcome of litigation, they would not be dispositive and could not supplant the final determinations that federal courts are entitled to make. Litigants enter district court with all manner of presumptions both in their favor and against them, most obviously the burden of proof borne by plaintiffs in civil litigation or on the state in criminal settings. Adding another into the process hardly seems to substantially limit the role of federal courts.

One might also argue that this proposal raises due process concerns because parties will have a substantial portion of their ownership rights or user privileges resolved based only on a limited paper record. Due process analysis requires application of a balancing test that looks to the costs exacted on private parties and the administrative advantages the attenuated process generates for the state.²⁴⁵ The proposal I have set out here creates significant efficiencies for government and resolves uncertainty problems for users, but it does not take a heavy toll on private parties' rights. The copyright no-action letters would not prevent parties from accessing the courts and would not even conclusively resolve parties' rights, though they may affect the outcome of courts' determinations.²⁴⁶ Moreover, opposing and interested parties would have a chance

²⁴³ See generally Rev. Proc. 2007-1, 2007-1 I.R.B. 1 (outlining the IRS private letter ruling process); U.S. Secs. & Exchange Comm'n, *supra* note 238 (outlining the SEC no-action letter process).

²⁴⁴ The Copyright Office is located within the legislative branch. See 2 U.S.C. § 136 (2006); 17 U.S.C. § 701.

²⁴⁵ *Matthews v. Eldridge*, 424 U.S. 319, 332-35 (1976) (outlining the three-part test).

²⁴⁶ I am more concerned with the due process problems of proposals that would seek full determinations of infringement issues via prior administrative hearings. Carroll considers and rejects due process concerns about his suggestion that boards should conclusively resolve fair use issues. Carroll, *supra* note 60, at 1133-35. I agree with his point that inclusion of a plenary judicial review procedure helps to mitigate these considerations. See *id.* The magnitude, however, of the determinations made by the board seems to loom larger than Carroll suggests. See *id.* In many cases, infringement is undisputed and fair use remains as the defendant's only argument. Under such circumstances, the board would essentially be resolving the entire case. Although this may not be enough to raise a com-

to submit material to the boards to avoid any disparities at the agency level. Indeed, procedures requiring establishment of presumptions via brief agency hearings prior to federal litigation are not unheard of. For example, employees seeking to file federal lawsuits against their employers have to undergo a standard mediation with the Equal Employment Opportunity Commission, which then issues a "right to sue" determination in their favor if the mediation is unsuccessful.²⁴⁷

But would the approach I suggest generate administrative costs in excess of any advantages? Several factors weigh against such a conclusion. First, seeking a no-action letter from the copyright infringement board would be discretionary, rather than prerequisite to suit. Parties could choose to bypass the entire procedure and proceed straight to litigation. Second, there is already the kernel of an administrative apparatus in place to handle such requests. Of course, the Copyright Office currently performs only the most cursory review of a work's copyrightability when issuing registration (and registration itself is largely discretionary), while copyright no-action letters would require something closer to standard agency adjudication.²⁴⁸ But appointing a board would not require the establishment of an entirely new agency, only the creation of a three-member board and attendant staff, much like an administrative law tribunal. Third, letters would issue only in relatively easy cases in order to prevent parties with nonmeritorious claims from holding up uses with threats of expensive litigation. Thus the board would not need to engage the time-consuming process of resolving the intricacies of truly difficult cases, but only determine whether the parties have presented clear cases of infringement or noninfringement, simply issuing a "no opinion" letter to the rest. Finally, these proceedings would be resolved on the basis of a limited, paper record that would avoid the time and expense of engaging in full-fledged fact finding. Despite this, this regime would obviously entail administrative costs, and whether those costs would overbear its advantages is a counterfactual empirical question that cannot be answered in this Article. But the proposal bears promise as a way to allow

plete due process bar to Carroll's proposal, it makes it a closer call under the *Matthews* test. See 424 U.S. at 332–35.

²⁴⁷ See 42 U.S.C. § 2000e-5(f)(1) (2000). This procedure has come under fire as ineffective in recent years, but that criticism is due largely to a new regulation that allows automatic issuance of right-to-sue letters, a practice that obviously undermines the limiting or gate-keeping function of such letters. See 29 C.F.R. § 1601.28(a)(2) (2008).

²⁴⁸ See generally A GUIDE TO FEDERAL AGENCY ADJUDICATION (Michael Asimow ed., 2003) (describing the agency adjudication process prescribed for federal executive agencies such as the Copyright Office).

users to better understand their rights prior to engaging in possible infringement, avoiding the necessity of having to gamble on the possibility of incurring costly and use-preclusive liability in order to determine the scope of copyright entitlements.²⁴⁹

* * *

Each of these ideas for reform draws on longstanding property ideas. The foursquare parcel of land, with its readily understood, well-demarcated boundaries, represents the elemental real property entitlement.²⁵⁰ Real property, of course, has a physical instantiation that makes it essentially dissimilar to intellectual property. But to the extent that we can draw these kinds of crystalline boundaries around intellectual property entitlements—for example, delimiting with precision the point below which all takings from copyrighted works of authorship count as fair use—we can use property law ideas to enhance the privileges of ownership (whether they reside in private actors or the public).

Relatedly, notice has long occupied a central place in land and chattel ownership. One way courts mediate between competing claims of ownership to a single parcel of land or to a single object is to look to which of two purported owners has more clearly signaled possession through acts readily discernible to the public.²⁵¹ Indeed, as far back as *Pierson v. Post*,²⁵² courts crafted rules that emphasized clarity in possession. Pierson's claim ("I own the fox because I've physically grabbed it") generates a clearer rule than Post's ("I own the fox because I was in hot pursuit").²⁵³ And whether an adverse possessor's claim to land prevails depends to a large extent on whether the possession is "open and notorious" (i.e., whether it provides clear notice of the adverse possessor's claim to the land).²⁵⁴ The converse remains true. Easements cannot be

²⁴⁹ See Sterk, *supra* note 58, at 1327-32 (illustrating that, at present, the costs of determining copyright entitlements are prohibitively high).

²⁵⁰ Cf. Arthur Allen Leff, *Contract as Thing*, 19 AM. U. L. REV. 131, 140 (1970) (questioning the traditional Hohfeldian account of property as consisting only of legal relations because the objects governed by those relations "persist[] in the consciousness as 'dirt with boundaries'").

²⁵¹ See *Brunnagim v. Bradshaw*, 39 Cal. 24, 51 (1870) (holding, in a dispute over first possession of land, that a jury should rule in favor of the party who most clearly gave notice to the public that he had appropriated the property).

²⁵² 3 Cai. 175, 178 (N.Y. 1805).

²⁵³ *Id.* (holding in favor of Pierson because he signaled "an unequivocal intention of appropriating the animal to his individual use").

²⁵⁴ See, e.g., *Manillo v. Gorsky*, 255 A.2d 258, 263-64 (N.J. 1969) (holding that minor encroachments cannot be "open and notorious" because they do not apprise the owner of the adverse possessor's hostile claim); cf. *Marengo Cave Co. v. Ross*, 10 N.E.2d 917, 922

abandoned by simple non-use; rather, the dominant estate owner must indicate the abandonment by clear affirmative act to the servient estate owner.²⁵⁵ In the intellectual property context, courts have rejected attempts to claim common-law copyright in everyday utterances on the theory that the purported owners made no attempt to clearly indicate their property interest in the statements at issue.²⁵⁶ Requiring that owners comply with formalities before their copyrights become enforceable (or to avoid their cession to the public domain) illustrates another means by which approaching copyright from the perspective of rules endemic to physical property law can benefit the public, and not just private owners.

Finally, the *ex ante* definition of rights is a familiar feature of physical property regimes. Typically, courts do not determine whether a trespass has taken place; trespass is a prior fact dependent on whether one actor has transgressed the establishment of the boundaries of another actor's land. The *ex ante* character of physical property rights regimes also makes those rights more apparent to the general public and enables a regime based on exclusion and private bargaining rather than governance by state actors.²⁵⁷ The effort to animate copyright with more prior consciousness of what amounts to infringement by allowing some determination of that issue prior to litigation plays on this traditional physical property theme by seeking to enable actors to rely more on private bargaining rather than *ex post* court determination of rights.²⁵⁸

(Ind. 1937) (denying claim to adverse possession where the hostile possession took place underground and owner of the parcel was thus unaware of it).

²⁵⁵ See *Preseault v. United States*, 100 F.3d 1525, 1560–61 (Fed. Cir. 1996).

²⁵⁶ See *Falwell v. Penthouse Int'l, Ltd.*, 521 F. Supp. 1204, 1208 (W.D. Va. 1981) (denying protection for Jerry Falwell's everyday utterances in the absence of any "defined segregation, either by design or by implication of any of plaintiff's expressions of his thoughts and opinions of the subjects discussed, which would aid in identifying plaintiff's purported copyrighted material"); *Estate of Hemingway v. Random House, Inc.*, 244 N.E.2d 250, 254 (N.Y. 1968) (declining to extend common law copyright in the unfixed, everyday utterances of Ernest Hemingway because the author had not clearly indicated an intent to mark the utterances in question off from the common run of his everyday speech).

²⁵⁷ Henry E. Smith, *supra* note 44, at 455 (comparing exclusion and governance regimes).

²⁵⁸ Of course, notions like fair use and the idea/expression dichotomy likely cannot be invested with the degree of *ex ante* clarity that the borders of physical property can. My suggestion about infringement boards is thus at attempt to make copyright entitlements more property-like, even if they must, to some extent, always be governed by a liability rules regime. The distinction between exclusion and governance is a sliding scale rather than a bright line, even in the physical property context. See Smith, *supra* note 257, at 467.

CONCLUSION: INSIDE AND OUTSIDE PROPERTY

This Article advances a claim about the relationship of intellectual property (and, particularly, copyright) to physical property that differs from the predominant views in the current literature. Most copyright scholarship expresses resistance the idea of property, but this resistance is often unwarranted. The prevailing sense that property is necessarily inimical to the public domain fails to consider how property ideas can enhance, rather than degrade, the public domain. Property rules, insofar as they entail clearly defined entitlements, enable more effective investment in public information resources by demarcating the boundaries of those resources. Indeed, recent work suggesting targeted copyright reforms in the interest of enhancing the public domain—many of which this Article discusses—have the character of introducing property-style, bright-line rules into copyright.²⁵⁹ Despite this, much of the literature continues to express concern that the “propertytization” of copyright necessarily means an accretion of private rights in information and a corresponding diminishment of the public domain.²⁶⁰ The current literature thus contains an essential tension: embracing many property-style reforms while also resisting the treatment of copyright as a form of property. In this Article, I have sought to expose this tension, and in turn to show that the assumption of a necessary nexus between a property-style approach to copyright and a degradation of shared rights in information is flawed.

Beyond this central thesis, I also engage a debate that animates the property literature more generally. A significant strain of property scholarship lies within the Demsetzian tradition, presuming that property systems trend toward greater private control of resources and that this trend is normatively attractive.²⁶¹ This tradition, which has its roots in the writing of Coase²⁶² as well as Demsetz²⁶³ and its modern efflorescence in the neoclassical law-and-economics literature, stresses the social value of private reordering and of private ownership of tangible re-

²⁵⁹ See, e.g., Carroll, *supra* note 60, at 122–28 (proposing an administrative review board that would offer ex ante comments on the likely success of potential fair use actions); Parchomovsky & Goldman, *supra* note 200, at 1511–18 (suggesting concrete fair use benchmarks).

²⁶⁰ See *supra* note 2 and accompanying text.

²⁶¹ See Brett M. Frischmann & Mark A. Lemley, *Spillovers*, 107 COLUM. L. REV. 257, 264–65 (2007) (commenting on the influence of Demsetz’s work on property scholarship).

²⁶² See, e.g., Ronald H. Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1, 19–28 (1960).

²⁶³ See Demsetz, *supra* note 8, at 350.

sources.²⁶⁴ Underlying the instrumentalist claim about the value of private ownership is an absolutist, atomistic vision of property itself. This vision of property relies on a descriptive account of the institution that emphasizes the totality of individuals' control over the objects they own and pushes toward a normative account of the institution in which the extent of individual rights in those objects is maximized.²⁶⁵ The libertarian variation on this perspective highlights the extent to which private property provides individuals with a bulwark against state oppression.²⁶⁶ This is a perspective that resides *inside* property—it takes the premises of the institution as givens and accepts property's tendency toward increased private ownership as a more or less unalloyed social good.

Numerous writers have reacted against this view by attacking the institution of property from an external perspective. Skepticism of the social good generated by private property has a number of valences and traces at least to the radical anarchist and socialist movements of the mid-1800s. One familiar exposition of this position is Proudhon, who, influenced by Rousseau, took aim at the very foundation of property, arguing that there is no sound theoretical justification for protecting ownership entitlements (save for those resulting from individual labor) and insisting that property created political dissension rather than social welfare.²⁶⁷ This tradition followed through Marx and Engels, whose

²⁶⁴ Richard Epstein's work provides a classic account in this vein. See RICHARD EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* (1986); see also Richard A. Epstein, *Notice and Freedom of Contract in the Law of Servitudes*, 55 S. CAL. L. REV. 1353, 1359 (1982).

²⁶⁵ Of course, even a brief consideration of the limits implicit and explicit in real and personal property law reveal the shortfalls of the descriptive aspect of property absolutism. See Eric Freyfogle, *Context and Accommodation in Modern Property Law*, 41 STAN. L. REV. 1529, 1556 (1989) (quoting WILLIAM KITTREDGE, *OWNING IT* ALL 62–67 (1987)) (describing the idea of absolute property ownership as a "myth" that fails to account for the fact that "entitlements are becoming less and less absolute" and stressing that "ownership has always been a privilege granted by society, and revocable"); Joan Williams, *The Rhetoric of Property*, 83 IOWA L. REV. 277, 280–83 (1998) ("Many commentators have noted the gap between the political rhetoric of absolute property rights and the practice of limited property rights.").

²⁶⁶ MILTON FRIEDMAN, *CAPITALISM AND FREEDOM* 7–21 (1962); F.A. HAYEK, *THE CONSTITUTION OF LIBERTY* 139–41 (1960).

²⁶⁷ PIERRE-JOSEPH PROUDHON ET AL., *WHAT IS PROPERTY? AN INQUIRY INTO THE PRINCIPLE OF RIGHT AND GOVERNMENT* 13 (Donald R. Kelly & Bonnie G. Smith eds. & trans., 2003) (1876) (famously introducing the aphorism "la propriété, c'est le vol!" or, roughly, "property is theft").

vision of communism had abolition of private property as a foundational tenet.²⁶⁸

Modern writers, in a less radical but still critical vein, have articulated a variety of critiques that undermine the foundations of the institution. Native American critics of property have argued that the very notion of ownership entitlements in land is incoherent.²⁶⁹ Some have argued that property's focus on market production creates a general tone of commodification, threatening to reduce the world to no more than a series of objects in trade, and eliminating other criteria of value so that human experience itself is diminished.²⁷⁰ Still others have suggested that property regimes are systematically biased in favor of preexisting property holders, who can leverage their power to skew outcomes in their favor, precluding more equitable distributions than would occur otherwise.²⁷¹ A final, and related, structural critique is that property systems lock society into particular modes of production that preclude the exploration of other alternatives, such as cooperative ventures, that have the potential to yield more efficient outcomes.²⁷² All of these per-

²⁶⁸ KARL MARX & FREDERICK ENGELS, *THE COMMUNIST MANIFESTO* 52 (Verso 1988) (1848) ("[T]he theory of the Communists may be summed up in a single sentence: Abolition of private property.").

²⁶⁹ As one such critic of property writes,

In the language of my people . . . there is a word for land: Eloheh. This same word also means history, culture and religion. We cannot separate our place on earth from our lives on the earth nor from our vision nor our meaning as people. We are taught from childhood that the animals and even the trees and plants that we share a place with are our brothers and sisters. So when we speak of land, we are not speaking of property, territory, or even a piece of ground upon which our houses sit and our crops are grown, we are speaking of something truly sacred.

PETER MATHIESSEN, *INDIAN COUNTRY* 118 (1994) (quoting Jimmie Durham, Eastern Band of Cherokees).

²⁷⁰ See Margaret Jane Radin, *Market-Inalienability*, 100 HARV. L. REV. 1849, 1903, 1951 (1987) (resisting the universal commodification of objects "as the sole discourse of human life" and suggesting instead the inalienability of some things, "grounded in noncommodification of things important to personhood"); see also Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957, 678-91 (1982).

²⁷¹ See, e.g., Emily Marden, *The Neem Tree Patent: International Conflict over the Commodification of Life*, 22 B.C. INT'L & COMP. L. REV. 279, 292-93 (1999) (discussing the benefits Western pharmaceutical companies derive from patents on plants discovered in India, where commodification of such living things runs counter to deeply rooted traditions); Joel M. Ngugi, *Re-Examining the Role of Private Property in Market Democracies: Problematic Ideological Issues Raised by Land Registration*, 25 MICH. J. INT'L L. 467, 499-500 (2004) (arguing that Kenyan land-title reform was driven by opportunistic elites who used the government's reform to create a landed gentry at the expense of peasant farmers).

²⁷² See, e.g., Yochai Benkler, *Freedom in the Commons: Towards a Political Economy of Information*, 52 DUKE L.J. 1245, 1247-48, 1254 (2003) (describing how pursuing productivity

spectives take different tacks on the problems with property, but what links them all is that they lie *outside* the institution, seeking to critique private ownership from an external perspective, and to expose the flaws of the assumptions and structures that animate the law of property.

These two views more or less track the current debate about the role of property ideas in copyright. Most writers situate their work in opposition to the propertization of copyright.²⁷³ Their reaction relies on a narrow vision of property as private property, and thus tracks the external critique of physical property.²⁷⁴ Concerned about the accretion of private rights in information and the correlative shrinking of the public domain, most copyright scholars simply reject the normative appeal of property governance structures as applied to information.²⁷⁵ By contrast, the relative minority of writers whose work expresses solicitude for owners and private rights rather than users and the public domain, embraces the essential continuousness of copyright and physical property.²⁷⁶ This point of view has its roots in the assumptions of neoclassical economics that resource governance inevitably trends toward privatization, and that this trend tends to increase social welfare. The two poles that characterize the debate over the propertization of copyright, then, track the two basic discourses about property: public domain advocates critique property from outside the institution while those concerned with owners' rights embrace the institution from inside.

But there is also a third way to think about the issue. It is possible to critique the dominant tradition of ownership as private possession without rejecting the idea of property altogether. Carol Rose has laid the foundation for this position, showing in numerous essays that property contains the seeds of its own humanity.²⁷⁷ Though it is often regarded by academics and the lay public alike as an atomizing institu-

and growth places a limit on commitments to "democracy, autonomy, and equality," particularly because of two modes of making production decisions—the market and the corporate hierarchy); Ngugi, *supra* note 271, at 513–14 (arguing that the effect of Kenyan land-title reform was to mandate the participation of farmers in commodity markets).

²⁷³ E.g., Carrier, *supra* note 2, at 6 (equating the "propertization" of intellectual property with "the expansion of the duration and scope of initial rights to approach unlimited dimensions"); Lemley, *supra* note 2, at 902 (lamenting the "propertization" of intellectual property).

²⁷⁴ James Boyle, *The Opposite of Property*, LAW & CONTEMP. PROBS., Winter/Spring 2003, at 1, 8 (describing the public domain as "the 'outside' of the intellectual property system").

²⁷⁵ See *supra* note 2 and accompanying text.

²⁷⁶ See, e.g., Easterbrook, *supra* note 4, at 118; Epstein, *supra* note 4, at 20–28; Hardy, *supra* note 4, at 213.

²⁷⁷ See, e.g., Rose, *supra* note 12, at 577–78; Rose, *supra* note 43, at 713, 723.

tion that separates and isolates individuals onto separate plots of land, Rose's work illustrates that property has, since Roman times, contained a strongly public-oriented strain as well, and that it functions to balance public and private interests rather than working exclusively in favor of the latter.²⁷⁸ Numerous other writers have made similar moves in the context of physical property. Some writers have advocated clarification and consolidation of existing rights in land possessed by third-world slum dwellers so they can more readily exercise their preexisting claims to that land, and participate more fully in civil society.²⁷⁹ Indian law scholars have suggested ways that Native Americans can use Anglo-American property theories to enforce their longstanding claims to tribal lands.²⁸⁰ Still others have stressed the extent to which ownership can enhance social bonds rather than separating members of society from one another,²⁸¹ and more generally highlighted the capacity of property to further social justice.²⁸²

All of these projects are critiques of the dominant view of property in that they resist the neoclassical economic and libertarian tradition that prioritizes individuated private ownership. But they are distinct from the major critiques in that they come from *inside* property, using the characteristics of the doctrine itself as the basis for constructing a more humane, socially oriented vision of ownership. Carol Rose's phrasing encapsulates the position: we need not regard property as a purely individualistic, atomizing institution, because property "is one of the most sociable institutions that human beings have created, depending as it does on mutual forbearance and on the recognition of and respect for the claims of others."²⁸³

²⁷⁸ Rose, *supra* note 43, at 713, 723.

²⁷⁹ See generally HERNANDO DE SOTO, *THE MYSTERY OF CAPITAL: WHY CAPITALISM TRIUMPHS IN THE WEST AND FAILS EVERYWHERE ELSE* (2000).

²⁸⁰ Kristen A. Carpenter, *A Property Rights Approach to Sacred Sites Cases: Asserting a Place for Indians as Nonowners*, 52 UCLA L. REV. 1061, 1092–1138 (2005).

²⁸¹ Eduardo Peñalver, *Property as Entrance*, 91 VA. L. REV. 1889, 1894 (2005) (highlighting property's capacity to reinforce the bonds of the society in which the property is situated); Gregory S. Alexander & Eduardo Peñalver, *Properties of Community* 9–19 (Cornell Legal Studies Research Paper Series, Paper No. 81, 2007), available at <http://lsr.nellco.org/cornell/lsrcp/papers/81>.

²⁸² Jedediah Purdy, *A Freedom-Promoting Approach to Property: A Renewed Tradition for New Debates*, 72 U. CHI. L. REV. 1237, 1242 (2005) (advocating a "freedom-promoting" conception of property).

²⁸³ Carol M. Rose, *Property in All the Wrong Places?*, 114 YALE L.J. 991, 1021 (2005) (reviewing MICHAEL F. BROWN, *WHO OWNS NATIVE CULTURE?* (2003) and KAREN R. MERRILL, *PUBLIC LANDS AND POLITICAL MEANING: RANCHERS, THE GOVERNMENT, AND THE PROPERTY BETWEEN THEM* (2002)); see also Peñalver, *supra* note 281, at 1894.

I seek to apply these ideas, familiar in the physical property setting, to copyright as well. The above discussion takes a step toward critiquing and re-imagining the idea of owning ideas from inside rather than outside property. Resistance to the propertization of copyright relies on ideas that reside outside property—concern that an accretion of private rights in information is inevitably harmful to the public aims that are so central to the federal copyright regime. The approach I've taken in this Article critiques a neoclassical view of copyright that pushes always toward greater accretion of private rights in information. This is, however, an approach that seeks to do this by operating from within, rather than without property. At least in the instances I've outlined, a property-like approach to constructing boundaries around information, and in particular the imposition, where feasible, of crystalline rule structures, may provide the best bulwark against excessive privatization of ideas and inventions.

Ultimately, resistance to propertization may be futile. The U.S. copyright system is undergirded by the idea that providing private, exclusive rights in information is the best means by which to encourage the creation of more information. The concern, then, should not be with "propertization" of information, but rather with the particular governance structures used to effect the reduction of ideas to proprietary status. In this Article, I have sought to show one way in which property-like notions can be deployed to enhance rather than degrade the public domain. The more general idea this suggests is that property does not have a necessary substantive or ideological direction.²⁸⁴ The insight of Rose and others that property law contains the seeds of a more humane vision of ownership suggests that the application of property ideas to copyright need not threaten the maintenance of robust public domain but is perfectly consistent with, and may even be helpful to, the cause of a publicly oriented vision of information governance.

²⁸⁴ Some writers have gestured in this direction. See Purdy, *supra* note 282, at 1283 ("[T]he tradition of freedom-oriented political economy has always understood that property rights are instruments for the promotion of capabilities and resistance to domination, not naturally fixed categories. This insight is a kind of immunization against the perception that the movement to rewrite intellectual property is 'anti-property' or that what the public domain the movement seeks to preserve is 'the opposite of property.' Rather, the present debate over intellectual property falls squarely *within* the tradition of property thought.").