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Reflections on the Law and Economics of Copyright Scope and its Implications for Fair Use

Matthew J. Sag*

*Northwestern University School of Law, msag@luc.edu

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Matthew J. Sag*

Northwestern University School of Law

m-sag@law.northwestern.edu

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Uncertainty as to the optimum extent of protection has generally limited the capacity of law and economics to translate economic theory into coherent doctrinal recommendations in the realm of copyright. The article explores the relationship between copyright scope and welfare from a theoretical perspective to develop a framework for evaluating specific doctrinal recommendations in copyright law. This analysis of copyright scope establishes that (1) the efficiency of private ordering is the key determinant of the ideal level of copyright scope; (2) the complexity of the welfare-scope relationship is such that we are unlikely to be able to ascertain a generalizable optimal level of copyright scope – the relationship will clearly be subject to substantial variation, both within and between industries; (3) doctrinal recommendations which aim to optimize copyright scope in the abstract but do not account for the effect of a doctrinal change on transaction costs or uncertainty are necessarily incomplete.

This article bridges the gap between the traditional law and economics of copyright and specific doctrinal analysis, applying the above conclusions as metrics for assessing doctrinal proposals. The usefulness of applying these metrics in either rejecting or improving doctrinal recommendations is illustrated with reference to the predominant law and economics theories of fair use.

Keywords: Copyright, copyright scope, doctrinal efficiency, law and economics, welfare effects, private ordering, fair use, market failure, cost-benefit analysis, game theory.

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INTRODUCTION

Uncertainty as to the optimum extent of protection has frequently limited the capacity of law and economics to translate economic theory into coherent doctrinal recommendations in the realm of copyright. William Landes and Richard Posner's foundational article, *An Economic Analysis of Copyright*, seeks to describe the operation of copyright by analyzing the extent of copyright protection, broadly defined.[1] Although the significance of their work is beyond question, there are a number of problems with the single variable model which suggest that it is due for reconsideration. The core difficulty with the Landes and Posner approach is that knowledge of the optimum level of copyright protection does not translate directly into the types of doctrinal decisions that judges have to make.

The first aspect of the single variable model's indeterminacy relates to the trade-off between scope and duration. From an economic perspective, copyright protection is made up of two variables, scope and duration—consequently, conclusions as to optimum protection do not suggest which of the infinite number of combinations of scope and duration should be adopted. Assuming that our core interest lies in the economic analysis of copyright doctrine, *this layer* of indeterminacy can be avoided simply by treating duration as exogenous. Treating duration as exogenous begins to address that problem, but only to reveal a *second layer* of indeterminacy relating to the composition of copyright scope. Just as copyright protection is composed of both scope and duration, copyright scope itself represents the combined effects of numerous copyright doctrines, such as the idea-expression distinction, the requirement for substantial similarity and the doctrine of fair use.[2]

[1] William Landes and Richard Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325 (1989). Landes and Posner have recently expanded on their foundational work in their recent book, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW (2003). Changes and extensions to the Landes and Posner model are noted herein to the extent they are relevant.

[2] See note __ *infra* and accompanying text.

Each of these doctrines plays a vital role in determining copyright scope—thus, any assessment of the optimum level of scope will also be doctrinally indeterminate, as it too could be achieved through an infinite number of combinations of its various components. The compositional indeterminacy of copyright scope (and copyright protection more generally) means that economic analysis of copyright doctrines must consider both the optimal level of copyright scope and the efficiency of individual doctrines used to implement that scope.

The traditional analysis of the optimum level of copyright protection provides a framework for understanding the trade-offs between the benefit of monopoly incentives and the cost of monopoly pricing.[3] In contrast, focusing on copyright scope allows us to focus more directly on the effect of copyright on cumulative innovation. The model of the welfare effects of copyright scope developed in this article concentrates on the trade-offs between initial authors and follow-on authors.[4] One clear advantage of modifying the broader notion of copyright protection to exclude duration is that it frames economic analysis of copyright in the same terms as legal analysis. Copyright scope does not solve the compositional ambiguity of the broader model, but its aggregation of doctrinal questions is not completely unrealistic. Resolving copyright disputes frequently involves the simultaneous application of a number of different doctrines, but the ultimate question a court has to decide is always the same: does the defendant's use violate the plaintiff's rights?

The recent eleventh circuit decision in *SunTrust Bank v. Houghton Mifflin Co.*[5] serves as an example. In that case, the copyright owner of Gone With the Wind (GWTW), claimed

[3] Landes and Posner, *supra* note 1.

[4] This is not ignored in Landes and Posner's original work, but nor is it their focus, see Landes and Posner, *supra* note 1, at 325. Mark Lemley has directly addressed the effect of copyright doctrines on sequential innovation in a comparison to patent law. Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 Tex. L. Rev. 989, 993 (1997).

[5] 268 F.3d 1257 (11th Cir. 2001).

that a critical reinterpretation in the form of a new novel, The Wind Done Gone (TWDG), was an infringement of copyright. The Court of Appeals found held that TWDG was substantially similar to the GWTW because of its extensive use of the characters, settings and story line of the original.[6] Nonetheless, the court found that the new book was a specific criticism of and rejoinder to the perceived racism of the original and was thus protected by copyright's fair use doctrine.[7] The court's decision limited the scope of the copyright owner's rights. But that same decision could have been reached by concluding that the two works lacked substantial similarity, rather than relying on fair use. As illustrated, almost every copyright case involves numerous doctrinal issues, but only one outcome.

This article builds on previous scholarship questioning the scope of copyright,[8] and extends that analysis into a more systematic inquiry within a law and economics framework. Existing scholarship tends to focus on either the public goods nature of information or the positive externalities which result from information production,[9] whereas this article focuses on the relationship between copyright scope and doctrinal efficiency.

The copyright literature is rife with assertions that copyright is either unnecessary or too broad in specific applications, and that various doctrinal levers should be employed to

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[6] *Id.* at 1267.

[7] *Id.* at 1271.

[8] See e.g. Mark A. Lemley, *Property, Intellectual Property, and Free Riding,* 83 Tex. L. Rev 1031 (2005); Brett M. Frischmann, *An Economic Theory of Infrastructure and Commons Management*, 89 Minn. L. Rev. 917 (2005); LAWRENCE LESSIG, FREE CULTURE (2004); James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain,* 66 L. & Contemp. Probs. 33 (2003); LAWRENCE LESSIG, THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD (2001); Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access* 52 Fed. Comm. L.J. 561 (2000); LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (1999); Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 N.Y.U. L. Rev. 354 (1999); Julie E. Cohen, *Lochner in Cyberspace: The New Economic Orthodoxy of "Rights Management"*, 97 Mich. L. Rev. 462 (1998); Lawrence Lessig, *Intellectual Property and Code*, 11 St. John's J. Legal Comm. 635 (1996); Glynn S. Lunney, Jr., *Reexamining Copyright's Incentives-Access Paradigm*, 49 Vand. L. Rev. 483, 491-92 (1996); Neil W. Netanel, *Copyright and a Democratic Civil Society*, 106 Yale L.J. 283 (1996).

[9] Building on the work of Lawrence Lessig and many others, Brett Frischmann developes a comprehensive theory of the role of uncaptured positive externalities in his recent work in infrastructure. Brett M. Frischmann, *supra* note 8.

remedy those excesses.[10] Even if we accept that copyright doctrines should be used as levers to more perfectly tailor copyright scope, we still need a mechanism to select which lever to pull and to understand when the costs of such tailoring are likely to exceed the benefits. This article bridges the gap between general analysis of the desirable level of copyright scope and specific doctrinal recommendations by developing and then applying a set of metrics for assessing doctrinal proposals. The usefulness of applying these metrics in either rejecting or improving doctrinal recommendations is illustrated with reference to the predominant law and economics theories of fair use.

Part I reviews the fundamental law and economics accounts of copyright, and frames some of the core copyright doctrines in terms of their relationship to copyright scope. Part II explores the limits of the traditional single variable model, the advantages of explicitly framing economic analysis in terms of copyright scope, and the importance of doctrinal efficiency. It then analyses the essential elements of the relationship between scope and welfare to develop a law and economics framework for evaluating specific doctrinal proposals. Part III then applies that framework to a critique of the current law and economics of fair use.

PART I – BACKGROUND: ECONOMIC ANALYSIS OF COPYRIGHT

This part first introduces the essentials of the law and economics of copyright. Traditional law and economics provides a rationale for both the existence of exclusive rights

[10] See e.g. Stacey L. Dogan and Joseph P. Liu, *Copyright Law and Subject Matter Specificity: The Case Of Computer Software,* 61 N.Y.U. ANN. SURV. AM. L. 203 (2005) (Noting that a number of courts have significantly adapted copyright doctrines to deal with special features of the computer software market. Concluding that these adaptations have, by and large, positively sought to strike a balance between incentive and access.) Lisa P. Ramsey, *Intellectual Property Rights in Advertising* (working paper 2005). Raymond Shih Ray Ku, *Consumers and Creative Destruction: Fair Use Beyond Market Failure*, 18 BERKELEY TECH. L.J. 539 (2003) (Finding that because "consumer copying does little to reduce the incentives for creation because, for the most part, the creation of music is not funded by the sale of copies of that music.")

over information, in the form of copyright, and for the limited nature of those rights. This part then argues that the primary concerns of economic analyses of copyright, the desirability and efficiency of copyright, are ultimately issues of copyright scope. This review is unnecessary for readers who are familiar with the law and economics of copyright.

A. The Peculiar Qualities of Information: The Law and Economics of Copyright

The basic dilemma of intellectual property is encapsulated by Stewart Brand's observation that "Information Wants To Be Free. Information also wants to be expensive."[11] Information wants to be free in the sense that, once produced, information is cheap to copy, distribute and recombine. Information wants to be expensive in the sense that for information producers to recover their fixed costs of creation, they need to be able to charge more than just the low marginal cost of copying which results from a competitive market. In its pure form, information is a public good, meaning that it is both non-excludable and nonrivalrous.[12] The non-excludable nature of information means that those who produce it often find it difficult to keep the benefits to themselves.[13]

Consider the following example. Amy, a budding novelist, plans to write a novel at an expected initial cost $100 (called the "cost of expression"). Amy also expects that, once written, it will only cost her $1 to make copies of her novel for distribution. There are 10 potential buyers of Amy's work, each with a different valuation ranging from Bill, for whom the novel is worth $20 to Kevin for whom the novel is worth only $11. If Amy was able to sell 10 copies of her novel at $11 each, she would be able to recover both her initial cost of

[11] STEWART BRAND, THE MEDIA LAB: INVENTING THE FUTURE AT MIT (1987). Information does not "want" anything in the cognitive sense, but it does have certain tendencies and characteristics that can be usefully summarized by recourse to such animist terms.

[12] STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW, 157–159 (2004).

[13] *Id.*

expression and her marginal cost (the cost of printing each additional volume). Unfortunately for Amy she is unlikely to be able to charge that price because once she sells a copy to her first customer, Bill, he will also be able to make copies and offer to sell them to the remaining customers. Bill's cost of expression is zero, since he did not write the novel, so Bill can make a profit by selling at any price above his marginal cost of copying. If Amy can't stop Bill free-riding on her work, she will abandon the idea of becoming a novelist and pursue an alternative career instead, a sub-optimal outcome for both Amy and her customers.

Amy's story illustrates the classic economic rationale for the creation of exclusive rights in information in general and copyright in particular. Without the legal artifact of exclusivity, Amy's competitors will face a lower average cost of production for her novel than she does.[14] Consequently, faced with the choice between creating and copying, it makes more sense to copy. To put it another way, in a competitive market, the market price will be that of the lowest cost producer, which the author will never be. As such, without some mechanism to appropriate the benefits of their investments, authors and publishers will under-invest in the production of information products.[15]

The function of copyright protection in resolving this problem in relation to expressive works is well understood.[16] Copyright rights allow an author to internalize more

[14] This is based on the assumption that both parties face the same marginal cost. But even if the subsequent producer has a higher marginal cost than the author, he will still have a lower average cost, as long as his marginal cost is less than the original author's marginal cost plus her average fixed costs.

[15] This assumes that the failure of the author to fully capture the benefits of her work distorts her allocation of resources. As discussed below, this may not always be the case, see note __ and accompanying text.

[16] See MENELL, PETER S. AND SCOTCHMER, SUZANNE, INTELLECTUAL PROPERTY, IN THE HANDBOOK OF LAW AND ECONOMICS, A. MITCHELL POLINSKY AND STEVEN SHAVELL (eds), Forthcoming http://ssrn.com/abstract=741424. Note also that government grants of exclusive rights in information are not the only solution to this problem. There are in fact a number of proposals to replace intellectual property with prizes and government subsidies. See for example, Steven Shavell & Tanguy Van Ypersele, *Rewards Versus Intellectual Property Rights*, 44 J.L. & Econ. 525 (2001); Michael Abramowicz, *Perfecting Patent Prizes*, 56 Vand. L. Rev. 115 (2003).

of the benefits of her creations; in economic terms, copyright facilitates the internalization of a work's positive externalities and limits free riding.[17]

It is important to note the functionalism of this explanation: under this view, the exclusive rights vested in authors do not exist by virtue of natural or inherent rights, they are simply a means to an end. Copyright's constitutional mandate is widely regarded as the establishment of incentives, not for the personal enrichment of authors, but as a stimulus to their contribution to the total good.[18] As the Supreme Court has commented on a number of occasions, the constitutional authority for copyright is expressly for the purpose of the promotion of science and useful arts, and copyright rewards to authors are means to that end.[19]

Various regimes of intellectual property address the non-excludability of information by making certain classes of information legally exclusive, even though they cannot make them actually exclusive. However, the exclusive rights established by regimes such as copyright only address one half of the public good problem of information. The other half of the public good problem, the nonrivalrous nature of information, must still be accounted for. A nonrivalrous good is one for which one person's use does not affect the value of any other person's use. For example, while a photographic print is a tangible physical object, it also embodies creative expression. If I take the print from your living room, you are deprived of the enjoyment of seeing it there; on the other hand, if I merely reproduce the print, you still

[17] Harold Demsetz, *Toward a Theory of Property Rights*, 57 Am. Econ. Rev. Papers & Proc. No. 2 (1967). (350). A positive externality arises when at least some benefits of an activity spill over to parties not directly involved in the activity. In contrast, free riders are actors who obtain the benefits of an activity, but do not share its costs. The "free rider problem" is the question of how to prevent free riding from taking place, or at least limit its effects.

[18] See e.g. Lemley, *supra* note 4, at 993.

[19] Eldred v. Ashcroft, 537 U.S. 186, 212 (2003) (copyright law celebrates the profit motive, recognizing that the incentive to profit from the exploitation of copyrights will redound to the public benefit by resulting in the proliferation of knowledge. The profit motive is the engine that ensures the progress of science.) See also, Fox Film Corp. v. Doyal, 286 U.S. 123, 127 (1932); Mazer v. Stein, 347 U.S. 201, 219 (1954); Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984).

have the original and yet I now have one too. The photo *qua* object is rivalrous; the photo *qua* artistic expression is non-rivalrous.[20]

The non-rivalrous nature of information makes the welfare implications of intellectual property different to those of other forms of property: the efficiency of allocating property rights in information must be off-set against its resulting under-utilization.[21] In other words, there is a trade-off between the author's incentive to produce a work and the public's interest in access to that work.[22]

The author's exclusive rights under copyright law provide a buffer against price competition.[23] This competitive buffer allows the author to charge higher prices than she otherwise would, which in turn has two immediate effects. First, some consumers remain willing to purchase the work at a higher price and consequently pay more. Assuming we value the welfare of both consumers and authors equally, this is simply a wealth transfer and is welfare neutral. Second, those who are unwilling to pay the higher price are forced to go without the work in question. Market allocation of scarce recourses to their highest valued use is usually welfare enhancing, but for nonrivalrous goods, the exclusion of low value users produces a deadweight loss[24] because their consumption is not at the expense of another who

[20] Note that the artistic expression aspect of the work becomes rivalrous if its value lies in part in its uniqueness. It is for this reason that many photographers release a predetermined limited number of prints of any given photo.

[21] KENNETH J. ARROW, ECONOMIC WELFARE AND THE ALLOCATION OF RESOURCES FOR INVENTION, in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609, 614 – 15 (Nat'l Bureau of Econ. Research ed., 1962); Richard R. Nelson, *The Simple Economics of Basic Scientific Research*, 67 J. POLIT. ECON. 297, 297 – 306 (1959).

[22] See, *Menell and Scotchmer, supra note 16*, at 3. (The main defect of intellectual property is that it results in a dead weight loss to consumers).

[23] While subsequent authors can offer other works in competition with the author, no one may offer the exact same work, or a substantially similar work, to the public without the author's permission. It is the author's expectation of the ability to price above marginal cost that induces her investment in production in the first place. For these purposes, it is not important whether this competitive buffer should be referred to as a "monopoly" or not. See Ariel Katz, *IP, Antitrust, and the Presumption of Market Power: Making Sense of Alleged Nonsense*, available at http://ssrn.com/abstract=702462.

[24] Deadweight loss refers to any permanent loss of social welfare. See Shavell, *supra* note 12, at __.

values the good more. More succinctly, a positive price for a nonrivalrous good necessarily implies its underutilization in consumption.[25]

Taking both the non-excludable and non-rivalrous nature of information into account suggests that there is an inevitable trade-off between efficiency in production and efficiency in consumption.[26] This is essentially a comparison of dynamic benefits and static costs.[27] Copyright has dynamic benefits in that it creates incentives to invest in the creation of new intellectual and creative works. Copyright has static costs comprised of the consumer deadweight loss resulting from higher prices, the concentration of market power, and possible stifling of alternative points of view. In the classic model, the optimal assignment of copyright rights is determined by a balance the dynamic incentives against static deadweight losses.[28] More recently, scholars have begun to question whether this simple trade-off between access and incentives describes the full effects of intellectual property. [29] This article offers one such challenge to the traditional model by emphasizing the centrality of copyright scope and the importance of doctrinal efficiency.

B. The Elements of Copyright Scope

In contrast to copyright duration, which dictates the period in which any copyright rights exist, copyright scope refers to the extent of the rights of the copyright owner. Like duration, copyright scope has greatly expanded over time, but with less uniformity. Since the statute of Anne in 1710, copyright laws in both England and the U.S. have given authors the

[25] Arrow, supra note 21, at 617. A view echoed by the U.S. Supreme Court: "[Copyright requires] a difficult balance between the interests of authors and inventors in the control and exploitation of their writings and discoveries on the one hand, and society's competing interest in the free flow of ideas, information, and commerce on the other hand." Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984).

[26] Arrow, supra note 21.

[27] *Id.*, at 618; Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 JOURNAL OF ECONOMIC PERSPECTIVES 29–41 (1991); RICHARD POSNER, ECONOMIC ANALYSIS OF LAW 36 – 50 (5th ed. 1998).

[28] Landes and Posner, supra note 1, at 326.

[29] Tim Wu, *Intellectual Property, Innovation, and Decision Architectures*, 92 VIRGINIA LAW REVIEW (forthcoming 2006). Available at http://ssrn.com/abstract=726561.

exclusive right to reproduce their works for a limited period of time. Until the mid-1800s, however, copyright infringement was limited to verbatim reproduction, or replication with only very minor changes that were judged to have been made merely to evade the copyright owner's rights.[30] In other words copyright scope was extremely narrow. For example, in the 1853 case of *Stowe v. Thomas,* it was held that a dramatization of the novel Uncle Tom's Cabin did not infringe the author's rights in the novel.[31] Subsequently, copyright scope has greatly expanded to the point where broad conceptual similarities have been found sufficient to sustain a finding of infringement.[32] Clearly, the *Stowe* case would be decided differently today.[33]

Copyright scope has both a formal legal dimension and an economic dimension.[34] In formal legal terms, scope depends on (i) the extent to which facts and ideas are not copyrightable, (ii) the extent of similarity required to make non-literal copying actionable, (iii) the extent to which similarity is accepted as evidence of actual copying and (iv) the extent of fair use.[35] In economic terms, scope can be envisaged spatially, as the distance between the author's work and the closest non-infringing substitute.[36] Alternatively, scope can be thought

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30. Oren Bracha, *From Privilege To Print To Ownership Of Works: The Transformation Of American Copyright Law 1790–1909* (2004) (unpublished Ph.D. dissertation, Harvard University Law School) (on file with author) at 36.

31 Stowe v. Thomas, 23 F. Cas. 201, 208 (No. 13,514) (CC ED Pa. 1853).

32 See, e.g. Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp., 562 F.2d 1157 (9th Cir., 1977); Taylor Corp. v. Four Seasons Greetings, LLC, 403 F.3d 958 (8th Cir., 2005); Whelan Assocs., Inc. v. Jaslow Dental Lab., Inc., 797 F.2d 1222, 1233 & n.25 (3d Cir. 1986).

33 Stewart v. Abend, 495 U.S. 207, 245-246 (1990).

34 Menell and Scotchmer, supra note 16, at 14. (Noting that legal doctrines do not map directly onto the economic concepts of breadth.)

35 The extent of secondary liability should probably also be considered to be a fundamental determinant of copyright scope because it allows the copyright owner to control new technologies of dissemination and also allows copyright owners to leverage their copyrights into non-copyright markets. This subject deserves more complete consideration than this article permits. Fred von Lohmann, *Fair Use as Innovation Policy* (working paper). One could also include the doctrines of originality, functionality and scenes a faire as separate determinants of copyright scope, although these are not addressed here. See also Menell and Scotchmer, supra note 16, at 13; Shavell, *supra* note 12, at 157–159. (Copyright scope determined by similarity, access, fair use and the derivative works doctrine).

36 See Paul Klemperer, How Broad Should the Scope of Patent Protection Be?, 21 RAND J. ECON. 113 (1990). See also, Menell and Scotchmer, *supra* note 16, at 14; Michael Abramowicz, An Industrial Organization

of as determining the cost of entry into the market occupied by the copyrighted work.[37] Both of these economic conceptions of scope assume compliance with the law. A more complicated question is how to account for the availability of both legal and illegal substitutes where a substantial body of consumers assigns only a very small discount for a product's illegality.

The congruence of the legal and economic dimensions of copyright scope is highly contingent: in some cases narrow legal rights give rise to broad economic power; in others, even broad legal rights provide little insulation from competition. Computer software illustrates both these points: protection of object code from literal copying provides a very effective shield against piracy; nonetheless, it does not protect any of the functionality of a program, and so offers very little advantage against would-be imitators.

The key doctrines of copyright are best understood as expanding and limiting the scope of copyright protection. The remainder of this section reviews the elements of copyright scope individually from a law and economics perspective.

1. The idea-expression distinction

The first element of copyright scope is the varying robustness with which courts police the idea expression distinction. At its core, the idea expression distinction holds that "no author may copyright his ideas or the facts he narrates."[38] As the Supreme Court has recently commented, copyright does not preclude others from using the ideas or information

Approach To Copyright Law, 46 Wm and Mary L. Rev. 33 (2004) (applying the Hotelling and Salop economic models of product differentiation to copyright); Yoo, *supra* note 38 (also applying economic models of product differentiation to copyright, but with different conclusions). See generally Jean Tirole, THE THEORY OF INDUSTRIAL ORGANIZATION (1998) at 96 – 131.

[37] Nancy T. Gallini, *Patent Policy and Costly Imitation*, 23 RAND J. ECON. 52 (1992). See also, Menell and Scotchmer, supra note 16, at 14.

[38] Harper & Row, Publishers, Inc. v. Nation Enterprises, 471 U.S. 539, 556 (1985); 17 U.S.C. § 102(b) (In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.)

contained in an author's work, it merely protects the expression of those ideas and information.[39]

The economic rationale for the idea expression distinction is that granting exclusive rights to the abstract ideas contained in a work would significantly increase both the cost of expression and the costs of administering copyright. These costs would exceed the incentive value of allowing broader rights over ideas for at least four reasons.

First, copyright protection of ideas raises the cost of expression for second generation authors by compelling them to either, (i) develop their own ideas, (ii) license ideas from copyright owners, (iii) search for ideas in the public domain or (iv) pursue alternative careers.[40] The impact on the cost of expression would depend on the level of abstractness of the idea in question. The theoretical possibility of copyright in very abstract ideas is unlikely to translate into a significant cost to future authors because of the large number of basic ideas already in the public domain; for example, Shakespeare seems to have covered all possible variations of the boy-meets-girl story. But at a slightly lower level of abstraction, there is a real danger that copyright protection of ideas would stymie the efforts of the next generation of authors and create an 'ideas thicket' of overlapping rights to be cleared.[41]

Second, the protection of ideas would significantly increase the administrative costs of copyright. "Courts would have to define each idea, set its boundaries, determine its overlap with other ideas, and, most difficult of all, identify the idea in the work of the alleged

[39] Eldred v. Ashcroft, 537 U.S. 186, 218–219 (2003). See also, Baker v. Selden, 101 U.S. 99 (1880) (accounting form used to record information rather than to explain information not eligible for copyright protection).

[40] This article uses the term "first generation author" to refer to the producer of an original work, and "second generation author" to refer to an author who combines new material with one or a number of existing works to make a new work. Clearly, any given author may be a first generation author in relation to her successors, but a second generation author in relation to her predecessors.

[41] Similar to a "patent thicket" whereby a tangle of overlapping upstream patent rights hinders the efficient development of downstream products because those seeking to commercialize a new technology must obtain licenses from multiple patentees. See, Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting*, 1 INNOVATION POL'Y AND THE ECON. 6-8 (2001), at http://faculty.haas.berkeley.edu/shapiro/thicket.pdf.

infringer."[42] Copyright protection of ideas would also increase the difficulty of differentiating infringement from independent discovery, discussed in more detail below.

Third, the extent to which the copyright protection of ideas would lead to any additional incentive to create is highly questionable. Basic ideas are rarely a product in themselves. No one pays $12 to be told to imagine that a family of children helps a stranded alien return home, but a finished product containing the artful expression of that same plot may be worth millions in the form of a movie, film or video game.[43] Ideas typically represent a small fraction of the cost of their expression;[44] consequently extending copyright protection further back along the continuum from expression to ideas is unlikely to have a significant incentive advantage. Such protection may accelerate development of "new" ideas but it is also likely to impede their further development. Another reason to doubt the incentive effects of copyright protection in ideas is simply that very few ideas are actually new. The greater the level of abstraction protected, the more likely this is to be true.

Fourth, copyright protection of ideas would encourage rent seeking and the diversion of resources from execution to initiation of new works.[45] If there are substantial rewards to be had merely for conceiving of basic ideas, it might be more attractive to act as a kind of plot-speculator, than working out the full expression of an idea. Plot-speculators could then extract licensing fees from those people who actually made finished expressive products. For these reasons, the strength of the idea expression distinction is a key determinant of copyright scope.

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[42] Landes and Posner, supra note 1, at 349.

[43] The film E.T.: the Extra-Terrestrial was at one point the highest grossing film of all time.

[44] Although there are counter-examples where the idea and the expression are essentially merged such as Newton's Third Law of Motion, or Einstein's Theory of General Relativity.

[45] Landes and Posner, supra note 1, at 349. An author by the name of Ashleigh Brilliant has been astonishingly successful at this kind of rent seeking. Brilliant "coined" 7500 aphorisms and mounted more than a hundred successful copyright infringement suits. See Michael Meurer, *Controlling Opportunistic and Anti-Competitive Intellectual Property Litigation*, 44 B.C. L. REV 509, 518 (2003).

2. Substantial similarity

The requirement of substantial similarity is the second element of copyright scope and is closely related to, but distinct from, the idea expression distinction. Copyright infringement requires both actual copying of the original work and that the subsequent work be substantial similar to that work.[46]

Like many other areas of copyright law, the substantial similarity requirement presents courts with a difficult line-drawing exercise.[47] As Judge Learned Hand explained in *Nichols v. Universal Pictures Corp.*, "[i]t is of course essential to any protection of literary property, whether at common-law or under the statute, that the right cannot be limited literally to the text, else a plagiarist would escape by immaterial variations. That has never been the law, but, as soon as literal appropriation ceases to be the test, the whole matter is necessarily at large …"[48] In many cases, courts simply apply an ordinary observer test to determine substantial similarity. For example, the ninth circuit has held that two works "are substantially similar where the ordinary observer, unless he set out to detect the disparities, would be disposed to overlook them, and regard the aesthetic appeal of the two works as the same."[49] However, because substantial similarity only applies to protectable expression and not the works as a whole, some courts have attempted a more rigorous process of dissection.[50]

[46] Newton v. Diamond, 349 F.3d 591, 594 (9th Cir. 2003) (Even where the fact of copying is conceded, no legal consequences will follow from that fact unless the copying is substantial.)

[47] As Judge Learned Hand commented, the line that separates substantial form insubstantial will always seem arbitrary, wherever it is drawn. Nichols v. Universal Pictures Co., 45 F.2d 119, 122 (2d Cir. 1930). See also Peter Pan Fabrics, Inc. v. Martin Weiner Corp., 274 F.2d 487, 489 (2d Cir. 1960) (the test for infringement of a copyright is of necessity vague.)

[48] Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir., 1930)

[49] Castle Rock Entm't, Inc. v. Carol Publ'g Group, Inc., 150 F.3d 132 (2d Cir. 1998) *(internal quotes and citations omitted)*

[50] Computer Associates International v. Altai, Inc., 982 F.2d 693 (2d Cir. 1992).

Substantial similarity also places a key limit on the scope of the copyright owner's derivative rights.[51] The exclusive right to make derivative works is broad: it includes the right to translate, abridge or dramatize a pre-existing works, just to name a few. Nonetheless, the derivative right remains subject to the requirement of substantial similarity.[52]

Both the idea expression distinction and substantial similarity requirement present courts with difficult line drawing exercises. What is right level of abstraction? What should be excluded from a substantial similarity inquiry? How much similarity is too much? How far should the right to control derivative works be extended? From the perspective of law and economics, these questions should be resolved with consideration of the costs and benefits of increasing (or decreasing) copyright scope in mind. If copyright scope is too broad, subsequent authors will be limited in their freedom to create their own works and society will not have access to adequate substitutes for the original work. On the other hand, if copyright scope is too narrow, substitutes for the original author's work would be too freely available, and her incentives will be reduced.

3. Actual copying

The third element of copyright scope concerns the application of the requirement for actual copying as a prerequisite to liability for infringement. There are at least two economic

[51] Section 106(2). Section 101 defines a derivative work as follows: "A derivative work is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgement, condensation, or any other form in which a work may be recast, transformed, or adapted."

[52] Litchfield v. Spielberg, 736 F.2d 1352, 1357 (9th Cir. 1984) (a work is not derivative unless it has been substantially copied from the prior work). See also 1 Melvin B. Nimmer & David Nimmer, Nimmer on Copyright 3.01 at 3-3 (2002). Many have commented that it is hard to see what the derivative right in section 106(2) adds to the reproduction right in section 106(1) of the Copyright Act. Nimmer, *Id.* See also, Lemley, *The Economics of Improvement*, *supra* note 4, at 1017–1018. Lemley offers three explanations for the separate treatment of derivatives: (i) section 106(2) may extend the exclusive right to reproduce a work "in copies" to any reproduction, whether fixed in a tangible medium of expression or not; (ii) the subsection may limit a consumer's ability to alter or transform their own copy of the work, notwithstanding the first sale doctrine; and (iii) in conjunction with section 103, the separate articulation of the derivative right may allow copyright owners to protect a chain of works more effectively. For example, "Disney might protect a book, a script derived from that book, a movie made from the script, and stuffed animals derived from the movie, even though the stuffed animals have no resemblance to anything described in the original book." *Id.*

justifications for the requirement of actual copying. The first is that, given the improbability of accidental replication of another's expression, the additional incentive effect of finding the second author liable in that unlikely event is presumably equally low.[53] The second reason is that, when there is independent creation, there is no free riding on the work of the original author. If two equally efficient authors independently create the same work, they each face the same cost of expression and the same average cost. The first author suffers from the market entry of the second, but only in the same fashion as a seller in any other type of market place suffers from competition.

Although copyright infringement requires actual copying as a matter of law, it is often proven circumstantially. A copyright plaintiff may prove a defendant's copying by showing that (i) the defendant had access to the plaintiff's copyrighted work and (ii) that defendant's work is substantially similar to the plaintiff's copyrightable material.[54] For this reason, the requirement of actual copying is closely linked to the question of substantial similarity, often muddlingly so. The similarity that makes copying actionable and the similarity that evidences copying in the first place should be distinct legal concepts; nonetheless, they are often mixed together.[55] Nevertheless, the actual copying requirement is a distinct element of copyright scope. Whereas substantial similarity affects scope by delineating the extent to which similar substitutes can exist in the market, the requirement of actual copying affects scope by rewarding independent creation regardless of the extent of similarity.

[53] Landes and Posner, *supra* note 1, at 345. Although, as Douglas Adams observed in The Hitchhiker's Guide to the Galaxy, an infinite number of monkeys typing at random, for an infinite period of time, will eventually produce complete works of William Shakespeare. Nonetheless, monkeys are not known to be especially litigious.

[54] Arnstein v. Porter, 154 F.2d 464 (2d Cir., 1946).

[55] See, Lunney, Reexamining, *supra* note 8.

4. Fair use

The fourth element of copyright scope is the doctrine of fair use. Section 107 of the Copyright Act states that "the fair use of a copyrighted work is not an infringement of copyright."[56] Moving beyond a circular definition of fair use is surprisingly difficult. The fair use doctrine operates in a contextual fashion as a negative definition: if something is fair use, it is not copyright infringement.[57] Time-shifting broadcast television for later viewing,[58] copying part of a work in order to make a parody of it,[59] making thumbnail versions of images available on the internet as part of a picture based search engine,[60] and reverse engineering computer software,[61] are all examples of fair use. These diverse fact patterns have at least two points in common: first, in each case the defendant reproduced a substantial part (or all) of the original work, such that there was no question of copying, substantial similarity or the idea expression distinction; second, the nature of the activity of the defendant was such that their copying was held to be non-infringing.[62] These cases and many others illustrate a more general point: the rights of copyright owners may be broadly expressed, but they are not absolute.

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[56] 17 U.S.C. § 107 (2005). The statutory codification of the fair use doctrine requires courts to consider four factors in determining whether a use is fair: (1) the purpose and character of the use; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion taken; and (4) the effect of the use upon the potential market for, or value of, the copyrighted work. *Id.*

[57] Both the statutory definition of fair use (a use that is not a violation of copyright) and the express limitation of the exclusive rights of the copyright owner (subject to section 107 (fair use)) indicate that "fair use should be considered an affirmative right… , rather than merely an affirmative defense." SunTrust Bank v. Houghton Mifflin Co., 268 F.3d 1257, 1260 (11th Cir. 2001); see also Bateman v. Mnemonics, Inc., 79 F.3d 1532, 1542 n.22 (11th Cir. 1996). However, fair use is commonly referred to an affirmative defense because of the procedural necessity that the specifics of the fair use claim be raised by the defendant. See Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 590 (1994).

[58] Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417 (1984).

[59] Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569 (1994).

[60] Kelly v. Arriba Soft Corp., 336 F.3d 811 (9th Cir. 2003).

[61] Sony Computer Entm't, Inc. v. Connectix Corp., 203 F.3d 596 (9th Cir. 2000).

[62] The question in *Sony,* was whether the maker of the video cassette recorder was liable for the potentially infringing actions of end users. Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417 (1984).

Fair use affects copyright scope by limiting the rights of copyright owners in some situations. Fair use encapsulates a judgment that in certain contexts, any reduction in a first generation author's incentive to produce original works that allowing an unauthorized use may cause, is outweighed by the benefits of that access. However, fair use has arguably served to protect the rights of copyright owners by enabling the otherwise broad scope and duration of their rights embodied in the current Copyright Act.[63] The predominant law and economics theories of fair use are examined in detail in Part III.

The purpose of this Part was acquaint the reader with some of the more basic concepts of the law and economics of copyright, and also to illustrate how copyright's core doctrines can be reframed in terms of their relationship to copyright scope. These concepts provide the foundation for Part II, which explores the limits of the traditional single variable model, the advantages of explicitly framing economic analysis in terms of copyright scope, and the importance of doctrinal efficiency. Part II also analyses the essential elements of the relationship between scope and welfare to develop a law and economics framework for evaluating specific doctrinal proposals.

PART II – COPYRIGHT SCOPE AND DOCTRINAL EFFICIENCY

A. The limits of the single variable model

Landes and Posner's article, *An Economic Analysis of Copyright*, describes the operation of copyright by analyzing the extent of copyright protection, broadly defined. The Landes and Posner framework has been very influential, but the limits of their analysis discussed in

[63] See Matthew J. Sag, *God in the Machine: A New Structural Analysis of Copyright's Fair Use Doctrine*, 11 MICH. TELECOMM. TECH. L. REV. 381 (2005).

this article suggest that some revision of the classic model is due.[64] The core difficulty with the Landes and Posner approach is that knowledge of the optimum level of copyright protection does not translate directly into the types of doctrinal decisions that judges have to make.[65]

The traditional single variable model's focus on overall copyright reward comes at the cost of significant indeterminacy. The Landes and Posner model treats copyright protection as a single variable (Z) and examines the relationship between Z, the cost of producing copyrightable works, and the number of works produced.[66] Landes and Posner developed their model as a vehicle through which to examine the field of copyright as a whole from an economic standpoint, and to see to what extent copyright law could be explained as a means for promoting the efficient allocation of resources.[67] In that context, the model serves its purpose, but as a vehicle for translating economic analysis into doctrinal recommendations, the model is limited by its own generality.[68]

The aggregation of scope and duration into a single variable makes analysis of the level of copyright protection doctrinally indeterminate. From an economic perspective,

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[64] This is not the first article to make this suggestion. For example, Glynn Lunney suggests that incentive access paradigm justifies any level of copyright protection because benefits of incentive and costs of limiting access oppose each other with equal force. Lunney, Reexamining, *supra* note 8, 486 (1996), See also, Yoo, *supra* note 38, at 222.

[65] This is the same observation that Merges and Nelson made with respect to patent law 15 years ago, but its application to copyright has rarely been systematically pursued. Robert P. Merges and Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839, 875 (1990). Mark Lemley's comparison of the treatment of incremental innovation in patent and copyright comes closest. See Lemley, Economics of Improvement, *supra* note __.

[66] Landes and Posner, *supra* note 1, at 325.

[67] *Id.*, at 325.

[68] Landes and Posner do undertake a significant normative analysis of copyright doctrine, but that analysis is largely disconnected from their model. Additionally, the author's doctrinal recommendations are primarily in the form of *ex post* justifications for existing doctrines. *Id.*, at 344 – 363. See James Boyle, *A Theory of Law and Information: Copyright, Spleens, Blackmail, and Insider Trading*, 80 Calif. L. Rev. 1413, 1447 (1992) ("Landes and Posner describe copyright as constructed by the tension between the need to grant legally protected interests to authors in order to motivate them and the need to limit the rights of authors so as to allow future creators legal access to the raw materials they need. This seems reasonable enough, but it also leaves them dangerously close to the mushy "balancing" analysis from which economics was supposed to provide surcease.")

copyright protection can be divided into two distinct variables: the scope of rights and their duration. In this respect, conclusions regarding the optimum level of protection do not suggest which of the infinite number of combinations of scope and duration should be adopted.

Assuming that our core interest lies in the economic analysis of individual copyright doctrines,[69] this layer of indeterminacy can be avoided simply by treating duration as exogenous. Although duration is clearly an important component of the author's expected reward, leaving duration out of the model has very little distorting effect because of the extraordinary length of modern copyright. The first American Copyright Act (1790) established a meager copyright term of only 14 years from the date of a work's publication; that term was renewable for an additional 14 years if the author survived the first term.[70] Since that time, the duration of copyright protection has steadily expanded. It was extended to 42 years in 1831,[71] and again to 56 years in 1909.[72] In 1976, Congress both extended the term of copyright and changed the method for its calculation. For the works of identified natural persons, the 1976 Act extended copyright term from the moment of the work's creation until 50 years after the author's death.[73] For anonymous works, pseudonymous works, and works made for hire, the 1976 Act provided a term of 75 years from publication or 100 years from creation, whichever expired first.[74] In 1988, Congress enacted the Sonny

[69] Which is not the primary purpose for which Landes and Posner designed their model. Landes and Posner, *supra* note 1, at 325.

[70] Act of May 31, 1790, ch. 15, § 1, 1 Stat. 124 (1790 Act).

[71] Act of Feb. 3, 1831, ch. 16, §§ 1, 16, 4 Stat. 436, 439 (1831 Act) (28 years from publication, renewable for an additional 14 years).

[72] Act of Mar. 4, 1909, ch. 320, §§ 23-24, 35 Stat. 1080-1081 (1909 Act). (28 years from publication, renewable for an additional 28 years).

[73] 17 U.S.C. § 302(a) (2005).

[74] 17 U.S.C. § 302(c) (2005).

Bono Copyright Term Extension Act (CTEA) which extended the terms of all existing and future copyrights by a further 20 years.[75]

The justification for these extensions is suspect from an economic perspective, particularly the most recent one affected by the CTEA. The low probability that a work will remain commercially valuable three quarters of a century (or more) after its publication, combined with standard assumptions about the time value of money, render the added incentive provided by the CTEA "virtually worthless."[76] Nonetheless, it seems likely that the change from a 75 year term to a 95 year term (as in the case of a work made for hire) may not be that significant from an *ex ante* perspective. One way to put the current duration of copyright into perspective is to contrast its net present value to that of perpetual copyright. According to the economists' brief in Eldred,[77] the copyright terms provided by the CTEA are equal to 99.8% of the value of a perpetual copyright. At first glance this seems remarkable, the term of copyright is now *so long* that it is barely distinguishable from infinity. But, note that on the same calculations, the terms established under the 1976 Act were equal to 99.4% of the value of a perpetual copyright.[78] Arguably, both these terms are too long, but even if one takes that view, it is hard to see that a term equal to 99.8% of perpetual copyright is significantly more problematic than one equal to 99.4%, or perpetual copyright.

[75] For works created by identified natural persons, the term now lasts from creation until 70 years after the author's death, see 17 U.S.C. § 302(a) (2005). For anonymous works, pseudonymous works, and works made for hire, the term is 95 years from publication or 120 years from creation, whichever expires first, 17 U.S.C. § 302(c) (2005).

[76] Robert P. Merges, *One Hundred Years of Solicitude: Intellectual Property Law, 1900-2000*, 88 CAL. L. REV. 2187, 2236-37 (2000) (describing the CTEA extension as "virtually worthless" from an incentive perspective, and "a classic instance of almost pure rent-seeking legislation."). See also, Eldred v. Ashcroft, 537 U.S. 186, 255 (U.S., 2003) (Justice Breyer, dissenting); George A. Akerlof et. al. – Brief of Amici Curiae George A. Akerlof et al., at 2, Eldred v. Ashcroft, 534 U.S. 1126 (2002) (No. 01-618) (term extension offers less than a 1% increase in the net present value of the pre 1998 term), available at http://eon.law.harvard.edu/openlaw/eldredvashcroft/supct/amici/economists.pdf.

[77] Akerlof, *Id.*

[78] Eldred v. Ashcroft, 537 U.S. 186, 210 (2003).

Moreover, the "effective copyright life"[79] of a work may be unrelated to its statutory life because the market for most copyright works fades long before the end of their term. *Ex ante*, it is copyright scope that largely determines a work's expected "effective copyright life."[80]

Treating duration as exogenous to economic models of copyright is also expedient given that duration appears to be determined solely with reference to political criteria, not social welfare criteria.[81] After *Eldred*, it is very clear that no matter how ill-conceived the recent CTEA might have been, nothing written by economists or law professors is likely to change the clear congressional policy in favor of long (and expanding) copyright terms. It is equally clear that efforts to limit Congressional power to implement that policy through judicial review have come to naught. In 2003 the Supreme Court upheld the constitutionality of the CTEA and rejected the petitioners' argument that the term extension violated the "limited times" prescription of the Copyright Clause.[82]

The appropriate combination of duration and scope in copyright is an interesting intellectual puzzle, but for the reasons given above, copyright scope should be the focus of our analysis, taking the current (extraordinarily long) duration as given.[83]

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[79] Adapting from O'Donoghue, Scotchmer and Thisse's notion of "effective patent life." See, O'Donoghue, T., S. Scotchmer and J.F. Thisse, *Patent Breadth, Patent Life and the Pace of Technological Progress*, 7 JOURNAL OF ECONOMICS AND MANAGEMENT STRATEGY 1 (1998).

[80] See discussion in Menell and Scotchmer, *supra* note 16, at 24 – 25. Landes and Posner have recently argued in favor of a system of indefinitely renewable copyright protection because of the possibility that prominent works might be subject to congestion externalities if they were to enter the public domain upon the expiration of copyright. William M. Landes & Richard A. Posner, *Indefinitely Renewable Copyright*, 70 U. Chi. L. Rev. 471, 475 (2003).

[81] This is the predominant view, there are exceptions. See e.g. Stan J. Liebowitz and Stephen Margolis, *Seventeen Famous Economists Weigh In On Copyright: The Role Of Theory, Empirics, And Network Effects*, 18 HARV. J. LAW & TEC 435 (2005).

[82] Eldred v. Ashcroft, 537 U.S. 186 (2003).

[83] This analysis does not take into account the economic function that formalities once had in copyright. See, Christopher Sprigman, *Reform(aliz)ing Copyright*, 57 STAN. L. REV. 485 (2004).

B. Copyright scope as a framework for economic analysis

As a tool of economic analysis, copyright scope has both distinct advantages and disadvantages compared to the more general notion of copyright protection. The primary strength of the approach is that it does not require knowledge of the optimum trade-off between the incentives created by copyright and dead-weight loss of exclusion.[84] As such, it allows us to focus more directly on the effect of copyright on cumulative innovation.[85] The weakness of the model is that there are some important questions relating to the copyright system as a whole that cannot be addressed without considering the effect of the duration of rights. But, for the reasons discussed above, treating duration as exogenous has very little distorting effect in application.

Framing economic analysis in terms of scope is useful because it focuses on the effect of the law on cumulative innovation. The case for framing economic analysis in terms of copyright scope echoes Robert Merges and Richard Nelson's discussion of scope in the context of patent law.[86] Merges and Nelson identify the scope of property rights as a crucial question for patent law.[87] They note that conventional economic analysis stresses the importance of assigning property rights to mitigate problems relating to externalities but overlooks the question of how *broad* property rights should be.[88] Merges and Nelson argue

[84] See Lunney, *supra* note__.

[85]

[86] Merges and Nelson, *supra* note 65, at 875. For a summary of the literature on patent scope see Menell and Scotchmer, *supra* note, 3, at 13 – 16; Note that conclusions regarding patent scope may not directly translate to copyright because the different nature of the exclusive rights involved. In particular, patent law allows "blocking patents" whereby a second generation inventor can patent her improvements to the original inventor's device, even if she still needs a license from the original inventor to practice the improved invention. In contrast, under copyright law, the author of an unauthorized derivative work has no rights with respect to her creation. See, Lemley, *Economics*, *supra* note 8, at 991–992.

[87] Merges and Nelson, *supra* note 65, at 875.

[88] *Id.* The appropriate scope of copyright is a topic that has largely been outside the law and economics framework. See, e.g. Lessig, Free Culture, *supra* note 8; Boyle, Enclosure *supra* note 8; Lessig, The Future of Ideas, *supra* note 8; Benkler, From Consumers to Users, *supra* note 8; Lessig, Code, *supra* note 8; Benkler, Free as the Air, *supra* note 8 (1999); Lessig, Intellectual Property and Code, *supra* note 8; Netanel, *supra* note 8. There are

that "although property rights assignments can make development of an asset more efficient, the *scope* of rights is crucial. Property rights that are too narrow will not provide enough incentive to develop the asset, while overly broad rights will preempt too many competitive development efforts."[89]

Copyright scope controls the level of competition facing the copyright owner in both first and second generation products. The traditional incentive access paradigm concentrates on competition in the first generation market, but in many cases the more interesting questions for copyright relate to the second generation market where first generation products are inputs for later stage products.[90] Copyright scope determines the ability of rival producers to offer substitutes for the product of the original author, thus the ability to price over marginal cost. In contrast, copyright duration does not affect the level of competition during the term; it only determines when the market reverts to free competition. So, while scope is a question of degree, duration is all or nothing. One implication is that, whereas even small changes in copyright scope affect every market participant, only works near the end of their term of copyright protection are likely to be affected by a change in duration.[91]

notable exceptions, see e.g. Lemley, Free Riding*, supra* note 8; Frischmann, *supra* note 8; Abramowicz, *supra* note 36; Yoo, *supra* note 38; Cohen, *supra* note 8; Lunney, Reexamining, *supra* note 8.

[89] Merges and Nelson, *supra* note 65, at 875.

[90] Brett Frischmann's "infrastructure theory" argues that certain resources generate value when used as inputs into a wide range of productive processes and that the outputs from these processes are often public and non-market goods that generate positive externalities. Accordingly, Frischmann sees that there is broad case to be made for "open access" within a law and economics framework. Frischmann, *supra* note 8. The importance of copyrighted works as inputs for later stage products is also a key concern of scholars working outside the law and economics framework, see *supra* note 88.

[91] The application of copyright scope to questions relating to complete copies requires some clarification. Complete copies generally present easy cases for copyright law. For simple acts of piracy, copyright duration is the only significant question. Nonetheless, the fair use doctrine establishes a number of circumstances where even a complete copy will not infringe the author's rights. Generally these copies are either for an intermediate use, such as reverse engineering computer software – see Sony Computer Entm't, Inc. v. Connectix Corp., 203 F.3d 596 (9th Cir. 2000); a non-commercial use, such as time-shifting broadcast television, see Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417 (1984) – or releasing information in the public interest – see Online Policy Group v. Diebold, Inc., 337 F. Supp. 2d 1195 (C.D. Cal. 2004). But not always, see Kelly v. Arriba Soft Corp., 336 F.3d 811 (9th Cir. 2003).

C. The Welfare Effects of Changes in Copyright Scope

This section explores the relationship between copyright scope and welfare from a theoretical perspective.[92] Establishing what is known and what is unknown about that relationship provides a framework for evaluating specific doctrinal recommendations in copyright law. This method is useful given the number and variety of recommendations that implicitly rely on some underlying theory the scope-welfare relationship.[93] The framework developed in this article does not provide a basis for evaluating individual cases; rather it establishes a set of metrics or benchmarks by which to assess specific doctrinal recommendations. The usefulness of applying these metrics in either rejecting or improving doctrinal recommendations is illustrated in Part III of this article with reference to the predominant law and economics theories of fair use.

This section develops a model of the welfare effects of a change in copyright scope in four stages. First, it begins with a simple intuitive model of the welfare effects of a change in copyright scope by imagining the consequences of the opposing extremes of copyright scope: S_0 such that only identical works are capable of infringement, and S_∞ such that even the slightest similarity rendered liability for infringement. This simple model leads to the proposition that the welfare/scope curve is convex, such that the optimum level of copyright scope is more than S_0, but less than S_∞.

The second stage considers an entirely different model premised on efficient private ordering, i.e. the effective market reallocation of rights through licensing or the consolidation of production into firms. Essentially, the efficient private ordering model rejects the

[92] See Shavell, *supra* note 12, at 597. The standard economic definition of social welfare is the sum of all individual utilities, but determining which factors contribute to welfare in the context of copyright is difficult. For example, one can not simply assume that all books are of equal value, all movies are of equal value, or even that the average value of books and movies are the same. Furthermore, in the digital age there is no real scarcity of information, merely a scarcity of useful information.

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conclusion that increasing copyright scope is ever likely to increase the cost of expression more than it increases the incentive effect. Those advocating an efficient private ordering model acknowledge that an increase in copyright scope may raise the cost of expression for second generation authors, but they argue that those costs will, on average, be off-set by their increased prospective reward.[94]

The third stage attempts to reconcile the opposing views presented in stages one and two. The conclusion of the third stage is that the prospect of private ordering does change the likely welfare effects of an increase in copyright scope, but that there remains an optimal level of copyright scope that is less than the maximum. Many scholars have reached the same conclusion observationally.[95]

The fourth and final stage adds further complexity by arguing that there is no one welfare-scope relationship, rather different industries, markets, and modes of production will experience different welfare-scope relationships simultaneously. Empirical assessment of the likely welfare effects of a change in copyright scope is rendered extremely difficult by the indeterminacy of copyright scope and the likelihood of inter-industry effects. This suggests that attempts to calibrate individual copyright doctrines to optimize scope may be more difficult than previously acknowledged.

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[94] See, e.g. Menell and Scotchmer, *supra* note 16, 23 – 24; Tom W. Bell, *Fair Use vs. Fared Use: The Impact Of Automated Rights Management On Copyright's Fair Use Doctrine*, 76 N.C.L. REV. 557, 584 (1998); I. Trotter Hardy, *Property in Cyberspace*, 1996 U. Chi. Legal F. 217. Note that none of these scholars would literally advocate an infinite degree of copyright scope. At the most extreme they might argue that any feasible increase in scope is likely to be a net positive, and even that may be overstating their positions. Nonetheless, as a theoretical exercise it is important to begin with exploring the limits of the abstract proposition.

[95] E.g. Lessig, Intellectual Property and Code, *supra* note 8, at 638 (Arguing that sufficient incentive is something less than perfect control); Cohen, *supra* note 8, at 514 ("Incentives to create and limits on author/owner control are not mutually exclusive, as the argument from redistribution might lead one to think. Rather, they are complementary means for triangulating "progress." The trick is to balance the two, and neither assertions about redistribution nor formulaic prescriptions for maximizing allocative efficiency will help us.)

Stage 1: The simple model

The welfare effects of an increase in copyright scope are uncertain in the abstract. Like copyright protection more generally, any change in copyright scope will have effects on (i) the author's potential reward for the production of a work, (ii) the author's cost of expression and (iii) the administrative costs of the copyright system.

In isolation, the prospect of an increased reward should increase the production of copyrighted works. However, the same expansion of copyright scope may also increase the author's cost of expression. For example, faced with a legal regime that required brief quotations to be licensed, some authors would expend resources on attaining such licenses, whereas other would find it more economical to avoid that cost by summarizing instead of quoting. In either case, such a regime increases the cost of expression for second generation authors. An expansion of copyright scope might also increase the administrative costs of the copyright system, depending on the nature of the rule in question. For example, a rule that requires case by case adjudication would tend to cause more cases to be litigated and would thus increase state expenditure on judges, court houses etc.[96] The net effect of increasing copyright scope will depend on whether the costs of expansion outweigh the benefits, or vice-versa.

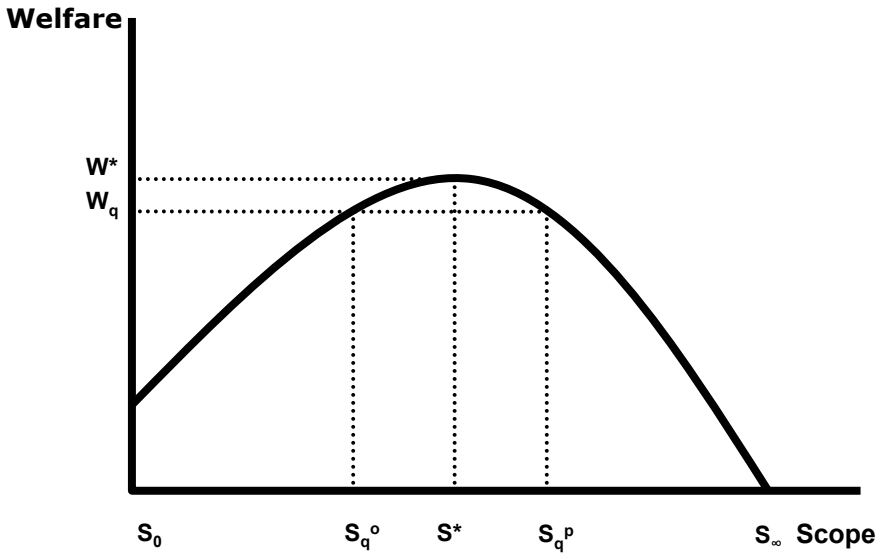
Assume for the moment that the scope of copyright was so narrow as to permit all but virtually identical reproduction of the original work by a second generation author. In that case, an expansion of copyright scope would almost certainly be welfare improving, as the positive effects of increased incentives would dominate any concerns as to the increased cost of expression. Works remain protected from outright piracy even at relatively high thresholds of substantial similarity; as that level falls (i.e. less similarity is required to find a

[96] This follows from the Priest-Kline model the selection of disputes for litigation. [cite]

work infringing), the extent to which competitors must differentiate their products from the work of the original author increases. Increasing copyright scope is welfare improving up to the point where the costs of expansion (increasing the cost of expression and administrative costs) outweigh the benefits of increased incentives.

Figure 1 represents the intuition that there is some ideal or maximally efficient scope of copyright. It represents welfare on the vertical axis and scope on the horizontal axis. The welfare-scope curve is convex, such that there exists a point S*, the level of scope at which welfare is maximized. An increase in scope from S_q^o to S* will be welfare improving, but any further increase (from S* to S_q^p) has the reverse effect, as the difficulty of creating new works while incorporating less and less of existing works begins to overwhelm the incentive effects.

Figure 1. Copyright scope as a function of welfare



This representation of the welfare effects of copyright scope does not indicate whether the current level of S is in fact greater than or less than S*. Views on this question sharply diverge. Paul Goldstein neatly summarizes the opposing viewpoints in his description

of "copyright optimism" versus "copyright pessimism." Goldstein frames the debate as follows:

> On one side are lawyers who assert that copyright is rooted in natural justice, entitling authors to every last penny that other people will pay to obtain copies of their works. These are the copyright optimists: they view copyright's cup of entitlement as always half-full, only waiting to be filled still further. On the other side of the debate are copyright pessimists, who see copyright's cup as half empty: they accept that copyright owners should get some measure of control over copies as an incentive to produce creative works, but they would like copyright to extend only so far as an encroachment on the general freedom of everyone to write and say what they please.[97]

Copyright pessimists and copyright optimists disagree about where the status quo (S_q) is on the scope Copyright pessimists accept that intellectual property protection is beneficial up to a point, but they argue that the current climate of broad exclusive rights has extended copyright too far.[98] The copyright pessimist view is represented on Figure 1 by the point (S_q^p, W_q), at which the curve is downward-sloping, with any increase in scope causing a reduction in net welfare. In contrast, copyright optimists believe that greater protection of intellectual property will encourage even further investment.[99] The copyright optimist view is represented on Figure 1 by the point (S_q^o, W_q), at which the curve is upward-sloping with any increase in scope improving net welfare. Note that both S_q^p and S_q^o are associated with welfare level W_q, illustrating that it is possible to agree on the current benefits of the copyright system but still disagree on whether copyright scope is too broad, or too narrow.

This simple model of the welfare effects of increasing copyright scope is consistent with the common law intuition that the demands of sequential innovation are such that there are diminishing returns to increasing the scope of copyright. In *Campbell v. Acuff Rose*, the

[97] PAUL GOLDSTEIN, COPYRIGHT'S HIGHWAY: THE LAW AND LORE OF COPYRIGHT FROM GUTENBERG TO THE CELESTIAL JUKEBOX, 15 (1994).

[98] See e.g. Lessig, Free Culture, *supra* note 8.

[99] Goldstein himself falls into this camp; his recommendation is essentially to "extend rights into every corner where consumers derive value from literary and artistic works." Goldstein, *supra* note 97, at 236.

Supreme Court identified an "… inherent tension in the need simultaneously to protect copyrighted material and to allow others to build upon it."[100] The Court, borrowing from Justice Story in *Emerson v. Davies,* also said that

> "… in literature, in science and in art, there are, and can be, few, if any, things, which in an abstract sense, are strictly new and original throughout. Every book in literature, science and art, borrows, and must necessarily borrow, and use much which was well known and used before."[101]

Stage 2: The effects of private ordering

Even assuming that all authors do in fact borrow from pre-existing works, i.e. every first generation author is also a second generation author, the extent to which copyright scope must be limited to accommodate this fact may be overstated in the simple model. Menell and Scotchmer argue that the harm of too much protection may be "largely reversed if firms can license to avoid conflicting property rights, rather than being forced into the costly activity of avoiding them."[102] Although Menell and Scotchmer's argument concentrates on private ordering through the licensing (the market), efficient private ordering can also be achieved through collectivization (the firm).

The prospect of efficient private ordering fundamentally challenges the simple model's assumption that increasing copyright scope is likely to increase the cost of expression more than the incentive effect at some point. As Ronald Coase made clear, the initial legal allocation of legal entitlements should not be confused with their ultimate allocation by the market.[103] For example, a court may give party A the right to pollute, or it may give party B the right not to be polluted; either way the parties will trade their rights if the other party values the right more. Theoretically, if the market for intellectual property

[100] Campbell v. Acuff-Rose Music, 510 U.S. 569, 575 (1994).
[101] *Id.* See also, Carey v. Kearsley, 170 Eng. Rep. 679, 681 (K. B. 1803), per Lord Ellenborough.
[102] Menell and Scotchmer, *supra* note 16, at 24.
[103] Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960)

rights was perfectly efficient, any increase in the cost of expression caused by an expansion of copyright scope should be at least off-set by the increased expected rewards.[104] Subsequent authors seeking to build on an existing work may face higher costs, but those costs should be off-set by their increased prospective reward.[105] In a Coasian world, without transaction costs or other market imperfections, there is no reason to assume that increasing copyright scope ever reduces welfare.

Taken to an extreme, this view expands copyright optimism to general market optimism to derive the conclusion that increasing copyright scope is always welfare improving.[106] Copyright optimism holds that increased control produces greater incentives and hence greater production, and hence greater welfare; market optimism holds that rights will be effectively redistributed through the market such that any subsequent producer who is capable of adding value to an original work will be able to negotiate a license from the copyright owner to do so.[107] The fact that first generation authors can extract rent from second generation authors is not typically considered relevant from a welfare perspective, as long as the subsequent user is still left with sufficient incentive to create. This "market optimist" view of the welfare effects of copyright scope is depicted in Figure 2. The asymptotic shape of the curve in Figure 2 captures the market optimist's assumption that any increase in copyright scope is welfare improving. Accordingly, in Figure 2, there is no S*, because there is no level of S at which a further increase in scope would not be welfare

[104] In theory, increasing the ratio of the copyright owner's private benefit to the social benefit of a work should perfect her incentives to produce. But that assumes that the process of internalization does not reduce the overall size of the pie, as it surely must if taken to extremes. As Mark Lemley points out, "[i]n no other area of the economy do we permit the full internalization of social benefits." Lemley, Free Riding, *supra* note 8, at 1032.

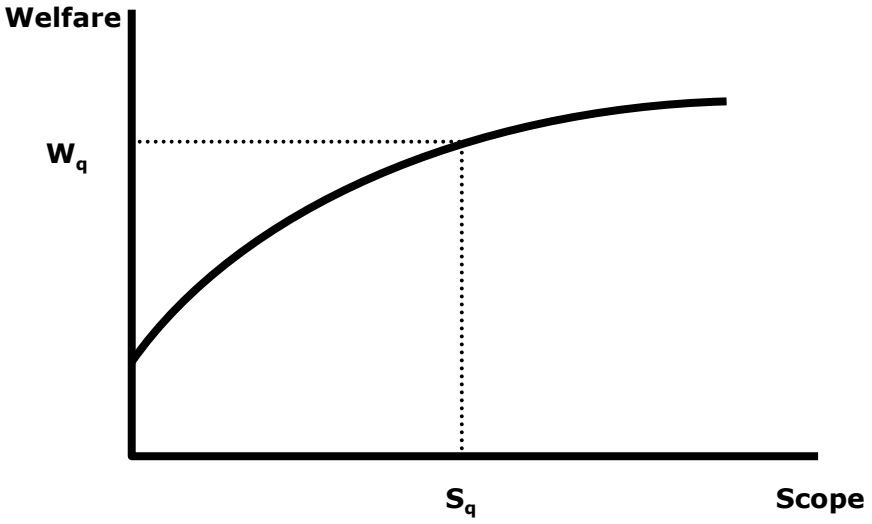
[105] Menell and Scotchmer, *supra* note 16, at 23 – 24.

[106] Julie Cohen labels proponents of similar views as "Cyber-cons." I prefer the less pejorative term "market optimist." See, Cohen, *supra* note 8, at 464.

[107] Bell, *supra* note 94, at 584.

improving. S_q represents the status quo level of copyright scope and W_q its corresponding welfare effect.

Figure 2. Copyright scope as a function of welfare: a market optimist's view



The accuracy of this market optimist view of the welfare effects of copyright scope depends on the efficiency of private ordering, both through the firm and the market. Adding fuel to the fire of optimism, Robert Merges points to the success of collective rights organizations such as ASCAP and certain patent pools, to argue that even if transactions costs are initially high, market solutions will often emerge to reduce them.[108] Merges describes a process whereby repeat players in high transaction costs industries form collective rights organizations to administer their rights, effectively exchanging their property entitlements for liability rules.[109] This suggests that even where copyright pessimists can

[108] Robert P. Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations* 84 CALIF. L. REV. 1293 (1996).

[109] *Id.*

identify apparent market failures in the short run, in the long run the market itself will address these problems.

While ASCAP has an impressive history, it is important to keep in mind its limitations. One of ASCAP's main functions is providing off-the-shelf licenses for the public performance of musical works. From the perspective of its customers, ASCAP lowers search and negotiation costs authors might otherwise encounter if they had to find and deal with each author separately. From the perspective of it members, ASCAP also lowers negotiation costs; in addition it lowers the cost of monitoring and enforcing authors rights, which would be prohibitive on a case by case basis. However, ASCAP primarily deals in the world of complete literal infringement, where rights are fairly certain. There is no reason to believe that effective collective rights organizations would develop in scenarios of non-literal infringement in the absence of high volume, relatively uniform transactions between repeat players.[110]

The case for strong market optimism in copyright is limited by the nature of the expansive nature of copyright itself. It is almost axiomatic in conventional law and economics literature that the allocation of property rights increases certainty.[111] For copyright, the opposite may be true. As copyright scope expands, rights become increasingly vague – not increasingly well defined. So it becomes increasingly difficult to know whose rights you might be infringing with any given work.[112] Harold Demsetz's *descriptive* proposition that property rights evolve in response to increased value of the underlying

[110] Merges acknowledges this limitation, noting that "[o]nly repeated transactions among right holders will give rise to the private institutions discussed in this Article. One-shot or sporadic interactions do not justify investments in exchange institutions." *Id.*, at 1319.

[111] Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, U CHI LEGAL F 207, 209 (1996). (When property rights are poorly specified, it is hard to transact about them, and correspondingly hard to promote the process of transaction that allocates resources to their highest valued uses.)

[112] The same argument can be made with respect to copyright duration: the passage of time makes tracing all the possible overlapping rights holders exponentially more complicated.

object has clear application to copyright.[113] The increasing importance of information has been one of the primary rallying points of those who advocate extending the scope and duration of copyright. Nonetheless, Brett Frischmann questions the *normative* gloss of the Demsetzian thesis that property rights *should* extend in response to increased value.[114] Where the benefits of increased propertization are concentrated, the application of basic public choice theory predicts that the level of propertization will exceed the Demsetzian equilibrium and property rights will be extended beyond the point where the social benefit of propertization outweighs the social cost.[115] Frischmann questions the merits of ever-expanding copyright for two fundamental reasons. First, not all externalities distort allocative decision making by the producers of first generation products.[116] Second, the market will tend to undervalue information outputs that are used as infrastructure.[117] I add a third observation that goes beyond externalities. Another reason to question the normative gloss of the Demsetzian thesis is that an expansion in copyright scope may render a superficially welfare improving outcome, but if the change increases the administrative costs of the copyright system, or the uncertainty costs borne by second generation authors, the change may in fact be welfare reducing.

A potential cause of doctrinal inefficiency that deserves greater attention is the implications of strategic behavior. Market optimists who rely on the extensive reallocation of permissions through licensing must take into account the increased significance of strategic behavior encouraged by increased market participation. Obviously, if a change in copyright scope increases a second generation authors need to "go to the market" to attain copyright

[113] See Frischmann, The Demsetzian Trend in Copyright, (working paper).
[114] *Id.*
[115] *Id.*
[116] *Id.* (Externalities are ubiquitous in society, and in a wide variety of contexts, externalities are simultaneously valuable to society and yet irrelevant to investment decisions, or more generally, to resource allocation by the market.) See also David D. Haddock, *Irrelevant Externality Angst*,[cite].
[117] Frischmann, *Id.*

permissions, she clearly faces increased transaction costs. But, in addition, she must also contend with the risk that first generation author's will strategically use their hold-up power to extract the highest license fees possible. So, relying exclusively on market mechanisms of exchange creates the danger that strategic exploitation of the market system can reduce aggregate welfare.

Another potential cause of doctrinal inefficiency that deserves greater attention is the possibility that private ordering may reduce the diversity of information production or result in overly-centralized decision making architectures.[118] Increases in copyright scope may reduce diversity by increasing the concentration of information production, or by concentrating too much decision making power in the hands of first generation authors.[119] For example, a recent Sixth Circuit Court of Appeals decision has held that any digital music sampling, no matter how brief, nor how unrecognizable, requires a license from the copyright owner.[120] Under this interpretation of the law,[121] artists who use a lot of music samples are likely to gravitate towards large labels that offer them a significant catalog of primary material, where they can be sure of attaining the required permissions on reasonable terms. Even if this does not reduce the production of music genres such as hip-hop, it may tend to centralize production under the roof of the large recording studios that already dominate the industry, and thus potentially reduce diversity, which is part of consumer welfare.[122]

[118] See Wu, *supra* note 29.

[119] *Id.*

[120] Bridgeport Music v. Dimension Films, 410 F.3d 792 (6th Cir., 2005) As the court so eloquently stated, "Get a license or do not sample."

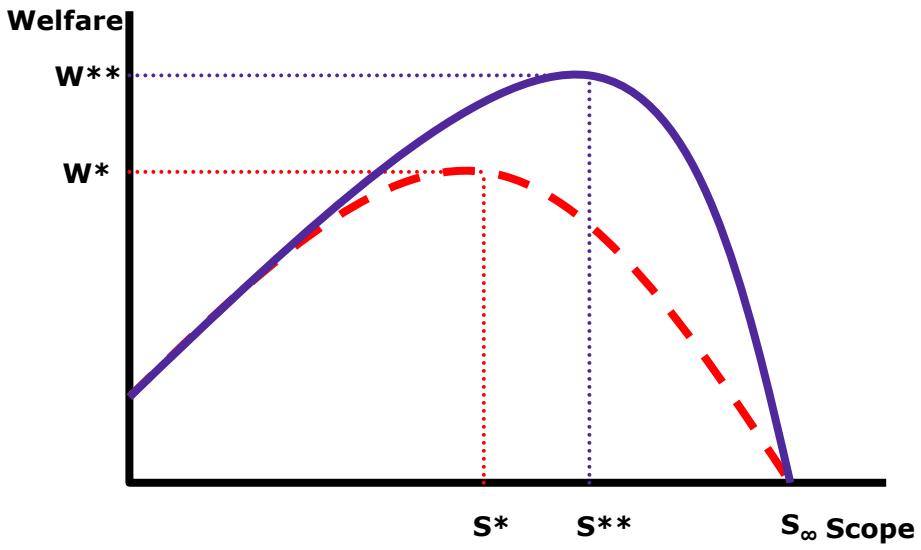
[121] For a thoughtful critique of the *Bridgeport* decision, see Sang Lee, *De Minimis Taking, Digital Sampling, and Copyright Infringement: A New Dissonance in Production,* NORTHWESTERN U. L. REV. (forthcoming 2006).

[122]

Stage 3: Reconciling the simple model with private ordering

We are left with a mixed picture. We should expect private ordering through licensing and the formation of firms to significantly reduce the negative welfare consequences of increasing copyright scope, but only up to a point. Figure 3 shows the welfare effects of copyright scope as initially depicted in Figure 1 (represented as a dashed line) but revised to take account of the mitigating effects of private ordering through both the firm and the market (represented by the solid line). As illustrated, if we reject a strong version of market optimism, the negative effects of an increase in copyright scope can be mitigated by private ordering, but not entirely erased. At the extreme level of copyright scope (S_∞), the welfare effect of copyright falls to zero. In this scenario any similarity constitutes copyright infringement, such that even the mere discussion of the Coase Theorem would require a license from its original author. Obviously, S_∞ does not represent any level of copyright scope that is likely to occur, even if copyright was rewritten according to the desires of copyright interests such as the RIAA and the MPAA.

Figure 3. The welfare effects of copyright scope given private ordering



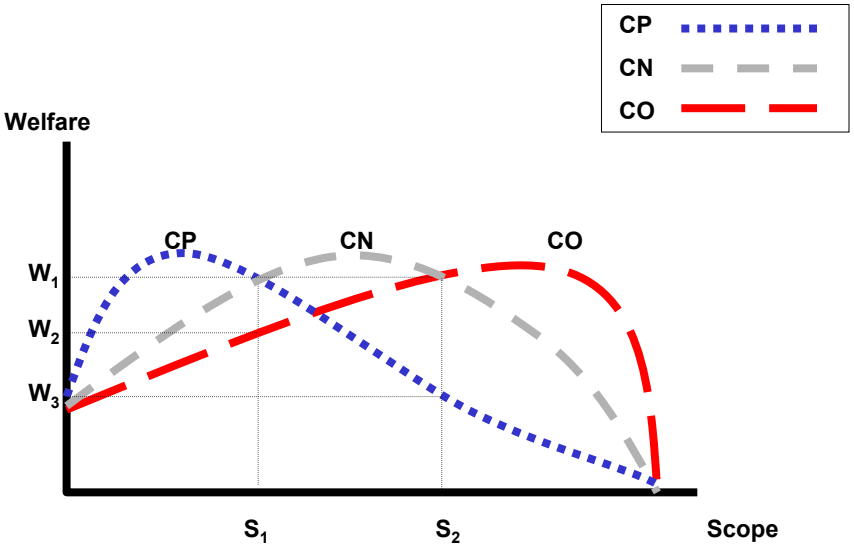
As Figure 3 illustrates, private ordering through both the market and the firm increases the level of copyright scope at which welfare is maximized (from S* to S**), but it does not change the fundamental relationship between copyright scope and welfare. The curve depicting the relationship is still convex; there is still a point, S**, at which any increase in copyright scope will reduce welfare below its maximum, W**.

Stage 4: Recognizing indeterminacy

None of this answers the question of whether the current level of copyright scope is more or less than S**. Empirical research on the efficiency of licensing and the consolidation of information production into firms has the potential to shed some light on this question, but it is unlikely to ever be conclusive. Different views of the benefits or detriments of a further extension of copyright scope can be attributed either to different assessments of the relationship between copyright scope and welfare, or merely to different assessments of the status quo, or different views regarding the effectiveness of market reallocation. A copyright

pessimist is likely to view the relationship as positively skewed, such that most of the benefits of copyright protection come from fairly low levels of protection. In contrast, a copyright optimist is likely to view the relationship as negatively skewed, such that it is not until copyright scope is very broad that the maximum benefits of copyright are seen. Figure 4 illustrates three possible relationships between welfare and copyright scope, drawn from the perspectives ranging from less to more optimistic (pessimist (CP), neutral (CN) and optimist (CO)).

Figure 4. Multiple possible relationships



Consider the move from S_1 to S_2, where S_1 represents the current level of copyright scope and S_2 represents a proposed increase. The shift from S_1 to S_2 is welfare negative on the CP curve because welfare declines from W_1 to W_3. On the CN curve, the shift from S_1 to S_2 is welfare neutral, although a move from S_1 to any point between S_1 and S_2 would be welfare enhancing. On the CO curve, the shift from S_1 to S_2 is welfare improving because welfare increases from W_2 to W_1.

The three curves in Figure 4 represent three different sets of assumptions about the relationship between copyright scope and welfare and varying degrees of optimism about the effect of an increase in copyright scope. However, they could equally represent the varying effects of copyright across three different industries. Returning to the earlier example of the *Bridgeport* decision, a blanket prohibition on unlicensed digital sampling is likely to modestly increase the incentives for music production in general, but it would also significantly raise the costs of producing certain types of music, such as hip-hop. Alternatively, it may be the case that folk musicians with a tradition of reinterpreting past works have lower fixed costs, require lower monetary rewards, but experience higher intrinsic rewards from production than pop singers in the mold of Britney Spears. Given those assumptions, folk singers would be best served by fairly low levels of copyright scope and are potentially adversely affected by even small increases in costs and uncertainty associated with higher levels of scope.

This leads to another significant consideration: even if it is established that an increase in copyright scope would do more harm than good in one industry, we have no present basis on which to generalize that finding to other industries.[123] In Figure 4 if we view CO, CN and CP, not as different views of the scope-welfare relationship in a given market, but rather as the scope-welfare relationship in three different markets, it is clear that increasing copyright scope might simultaneously increase welfare in relation to one sector of the economy, while reducing it in another.

The application of general standards to specific situations is an inherent part of the process of common law adjudication.[124] Those who advocate going one step further and

[123] Dan Burk and Mark Lemley discuss a similar problem with respect to industry variation in patent law. Dan L. Burk and Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1578 (2003) (Finding that economic evidence, patent doctrine, and legal theory, all vary by industry).

[124] A good example in copyright is the Judge Posner's modification of the joint authorship test in *Gaiman v MacFarlane* to accommodate the creative processes of the comic book industry. Gaiman v. McFarlane, 360 F.3d 644 (7th Cir. 2004).

tailoring specific doctrines to the perceived need for incentives in particular industries must take into account at least five potential hazards. First, industries are constantly evolving, thus industry definitions are inherently fluid and resist legal definition. Technological and social changes are continually reshaping the organization of industrial behavior and threatening to make today's well drawn classification into tomorrow's anachronism. For example, computer programming might once have been entirely differentiable from movie making, but the rise of animated films and big budget computer games has entirely blurred that distinction.

Second, express reliance on industry status gives litigants significant incentives to push the boundaries of whatever industry definition is used. The gradual erosion of limits on patentable subject matter illustrates the difficulty of maintaining industry based distinctions once they come under sustained attack. Third, intra-industry variation may be just as significant as inter-industry variation depending on the level of generality of the industry definition used. Fourth, inter-industry effects are likely to be ambiguous. A change in the law tailored to one industry may have flow on consequences for other industries. Fifth, industry tailoring may have negative effects on the overall political economy of copyright law.[125] Tailoring rules to particular industries concentrates their interests in lobbying for even more particularized benefits from Congress. None of this suggests that industry tailoring is never appropriate, just that its advocates need to carefully consider its feasibility in general and whether they have hit upon the most efficient doctrinal lever in particular.

As discussed in detail in Part III, an industry tailoring approach to the fair use doctrine is particularly unworkable for all these reasons. In contrast, a situational approach to fair use is to be preferred because it makes more sense for courts to examine the nature of

[125] See note __ *infra* and accompanying text.

the defendant's activity, rather than her status or affiliation. The key inquiry in this situational approach is whether the market should be presumed to be working, or not.[126]

How then should we assess whether doctrines should be amended to account for perceived needs to alter scope, according to either industry-specific or more general demands? The next two subsections develop the practical application of this theory.

D. The importance of doctrinal efficiency

Existing scholarship questioning the scope of tends to focus on either the public good nature of information or the positive externalities which result from information production,[127] whereas this article highlights the relationship between copyright scope and doctrinal efficiency. The existing literature is rife with assertions that copyright is either unnecessary or too broad in specific applications, and that various doctrinal levers should be employed to remedy those excesses. [128] However, even if we accept that copyright doctrines should be used as levers to more perfectly tailor copyright scope, we still need a mechanism to select which lever to pull and to understand when the costs of such tailoring are likely to exceed the benefits.

In evaluating specific doctrinal recommendations, we need to assess both the effect on copyright scope in general and the specific costs and benefits of the doctrinal formulation in particular. From this perspective, it is simplistic to assume that all possible compositions of copyright scope have the same effect on the author's expected reward, the author's cost of expression and the administrative costs of the copyright system.[129] As discussed in the previous subsection, the traditional economic analysis of copyright can be usefully reframed

126

127 See e.g. Frischmann, Infrastructure, *supra* note 8.

128 See, s*upra* note 10.

129 This simplifying assumption is perfectly reasonable in the context of Landes and Posner's original work which focused on the economic efficiency of the copyright system as a whole. See Landes and Posner, supra note 1, at 325.

as an inquiry into the optimum level of copyright scope, as opposed to copyright protection (which includes both scope and duration). Although focusing on scope is in many ways an improvement on the traditional model, it remains compositionally indeterminate. Just as copyright protection is composed of both scope and duration; copyright scope itself represents the combined effects of numerous copyright doctrines, such as the idea-expression distinction, the requirement for substantial similarity and the doctrine of fair use.[130] Consequently, any assessment of the optimum level of scope will also be doctrinally indeterminate, as it too could be achieved through a theoretically infinite number of combinations of its various components.[131]

The compositional indeterminacy of copyright scope means that economic analysis of copyright doctrines must consider both the optimal level of copyright scope and the efficiency of individual doctrines. Even if one regards economic efficiency as the sole motivation for copyright doctrines,[132] it is nonetheless apparent that copyright doctrines are only approximations for the efficiency concerns embedded within the law. Furthermore, the flexibility of individual doctrines is limited by the need to establish tests that are capable of external observation and judicial application.

There is no easy solution to interdependence of optimum copyright scope and optimum doctrinal composition, but it is clear that some comparison of doctrinal efficiency effects with the possible welfare gains of changing the level of copyright scope is necessary. One measure of the efficiency of individual doctrines is the disparity between the positive incentive effects of marginal increases in copyright scope and the associated increased costs

[130] See *supra* note 35 regarding other possible determinants of scope.

[131] Landes and Posner hint at the problem of compositional indeterminacy, but they do not pursue its conclusions beyond noting that "[t]he more the cost of expression rises as [Z] increases… the lower will be the optimal degree of copyright protection." Landes and Posner, supra note 1, at 344.

[132] For a contrary point of view see, Justin Hughes, *The Philosophy of Intellectual Property*, 77 Geo. L.J. 287 (1988). See also Molly Shaffer Van Houweling, *Distributive Values in Copyright*, 83 Tex. L. Rev. 1535 (2005).

to potential second generation authors. Put simply, the efficiency of an individual copyright doctrine is determined by the extent that a change in scope it benefits first generation authors more than its costs second generation authors.

Let α represent the difference between two levels of copyright scope. Assume that expanding a particular doctrine (from D_1 and D_2) will result in α increase in copyright scope. For example, a court could replace an objective audience based test of substantial similarity with a more inclusive test that merely required that the defendant's work would remind a substantial section of the public of the work of the plaintiff.[133] Even if preliminary economic analysis suggested expanding scope α degrees would result in a welfare improvement β, the desirability of the specific doctrinal change from D_1 and D_2 still depends on a comparison of the efficiency of the old doctrine compared to the new one.

β measures the move along the existing scope-welfare curve, but this is not necessarily the only change which occurs when copyright scope is increased. Expanding a particular doctrine from D_1 to D_2 may also change the function of scope-welfare relationship, resulting in a separate welfare effect, γ. γ represents the welfare effect of the doctrinal shift, a function of the marginal efficiency of the doctrine in question. If $\gamma \geq \beta$, then the suggested doctrinal change is unwarranted. How do β and γ differ? β is the predicted welfare effect of a change in copyright scope, it assumes that the doctrinal shift used to bring about that change has no effect on the welfare-scope relationship. In contrast, γ measures the welfare effect of changing the composition of copyright scope. Each combination of doctrines used to implement a change in scope may generate a different value for γ.

[133] Compare the test for substantial similarity in Tufenkian Import/Export Ventures, Inc. v. Einstein Moomjy, Inc., 338 F.3d 127, 134 (2d Cir. 2003) with the rather vague standard articulated by the Ninth Circuit in right of publicity cases. See White v. Samsung Electronics America, Inc., 1992 U.S. App. LEXIS 19253 (9th Cir. 1992) (Advertisement featuring robot in blond wig held appropriate Vanna White' identity).

The intuition behind this proposition is that legal doctrines do not simply gravitate towards efficiency in the abstract, they tend to "stick" at formulations that prove to be stable, workable and administrable.[134] As such, there may be significant uncertainty costs in attempting to precisely engineer doctrinal settings to manipulate the level of copyright scope. Furthermore, these costs are likely to vary depending on the doctrinal instrument chosen. Those who advocate the use of a particular doctrinal lever to control copyright scope must not only establish that an adjustment in scope is justified, but also that the lever they have chosen to pull is the right one. Returning to the previous example, rather than changing the requirement for substantial similarity, it might more efficient to adjust one of the other variables of copyright scope, such as the fair use doctrine.

It is important to understand the potential causes of doctrinal inefficiency and why the efficiency of doctrine is likely to vary. If a change in the law costs the average second generation author $100 more to create a work, that does not necessarily mean that the average first generation author receives $100 more copyright incentive. There is no reason to assume that the reward effect of any given change in the law will simply be the mirror image of the effect on the cost of expression.

First, transaction costs create an obvious asymmetry between the first generation author's reward and the second generation author's cost of expression. Second, even in the absence of transaction costs, second generation authors face the choice to license or evade the rights of the first generation author, and that choice complicates the relationship between author's expected rewards and their cost of expression for any given legal change. If the second generation author licenses, the first generation author profits directly; but if the

[134] At least until they are subject to some countervailing force for change.

second generation author evades through increased product differentiation, the first generation author only profits indirectly through a lessening of direct competition.[135]

An economic analysis of copyright doctrine should not just consider the elusive question of the optimal level of copyright protection or even the optimal degree of copyright scope. It must also consider the how *different doctrinal compositions* of copyright might affect authors' expected rewards, expected cost of expression and administrative costs for any given level of copyright scope. To be sure, precisely measuring doctrinal efficiency is problematic, but the experience of judges administering the common law is likely to give them at least a broad intuitive grasp of the trade-offs involved.

Indeed, improving the efficiency of copyright doctrines without reference to optimum copyright scope may be justified in some cases. *If* the resulting changes in scope are thought to be small, the welfare benefits of improving doctrinal efficiency will probably exceed the possible costs of moving scope in the wrong direction. For example, the application of the fair use doctrine could be greatly improved through a codification of certain safe-harbors already recognized in the common law. Doctrinal rules are least efficient when they increase transaction costs and uncertainty, or where they impede market solutions. Mitigating this inefficiency is a feasible use of law and economics, probably more feasible than finding the optimal level of copyright protection or even the optimal level of copyright scope.

[135] Alternatively, the second generation author's evasion could be conceived in terms of an increased entry cost to an undifferentiated market, as opposed to increased product differentiation. Either way the first author profits indirectly through a reduction of competition. See *supra* note 37.

E. Applying the copyright scope framework

The forgoing discussion can be reduced to four conclusions, three of which in turn provide useful metrics to assess a variety of specific doctrinal recommendations in copyright law.

First, it can be said with a high degree of confidence that a level of copyright scope that approaches either zero or infinity will be sub-optimal.[136] By itself this does not serve as a useful benchmark, but it is an important foundational point. The normative implications of this conclusion depend on one's own assessment of where the current scope of copyright lies along that spectrum. The current scope of copyright is clearly less than S_∞, but whether it is more or less than S* remains an open question. Copyright scope today is undoubtedly high compared to any other period of history.[137]On the other hand, although copyright scope has undoubtedly increased over time, less robust application of the idea expression distinction, lower thresholds of substantial similarity, and more restrictive interpretations of fair use doctrine are easy to imagine.[138]

Also, the normative implications of the uncertainty of the status quo in relation to the optimum level of copyright scope are murky. Copyright scope is often affected by external events. For example, the increasing use of personal computers has increased copyright scope because the use of a copyrighted digital work also necessitates copying that work into a computer's random access memory.[139] However, computer technology has also reduced the

[136] Clearly, this is by no means the first article on copyright to reach this conclusion, nor is it likely to be the last. See e.g. Lessig, Intellectual Property and Code, *supra* note 8, at 638); Cohen, *supra* note 8, at 514.

[137] Lessig, Free Culture, *supra* note 8, at 7 – 8, 141 – 44.

[138] For example, current tests as to substantial similarity are arguably more stringent than in the past. See Nimmer's discussion of *Tufenkian Import/Export* and the rehabilitation of the Second Circuit's "total concept and feel" test for substantial similarity. 4-13 Nimmer on Copyright § 13.03; Tufenkian Import/Export Ventures, Inc. v. Einstein Moomjy, Inc., 338 F.3d 127, 134 (2d Cir. 2003).

[139] MAI Sys. Corp. v. Peak Computer, 991 F.2d 511, 518 (9th Cir. 1993).

effective scope of copyright by drastically decreasing the cost of copying.[140] Certainly, there is good case for advising caution in relation to any further deliberate expansion in copyright scope, but that leaves open the question of whether copyright should be reengineered in response to external changes that appear to have caused a significant shift in copyright scope to maintain the current level of copyright scope. We should be skeptical of our power to perfectly engineer copyright scope.

The second conclusion is that the net welfare effects of a change in copyright scope are dependant on the efficiency of private ordering. The more efficiently the market reallocates rights through licensing or the consolidation of production into firms, the higher the optimum level of copyright scope will be. If the scope-welfare function is convex, not only is the efficiency of private ordering likely to vary generally, but the degree of efficiency required to justify an increase in copyright scope on welfare grounds increases with the level of copyright scope. Thus the higher the existing level of copyright scope is, the more perfectly efficient private ordering must be to sustain yet further increases.

The third conclusion is that the compositional indeterminacy of copyright scope (and copyright protection more generally) means that economic analysis of copyright doctrines must consider both the optimal level of copyright scope and the effect of *different doctrinal compositions* of copyright scope. Doctrinal recommendations that focus on optimizing the scope of copyright in the abstract but do not account for the effect of a proposed doctrinal change on transaction costs or uncertainty are necessarily incomplete.

The fourth conclusion that can be drawn from the forgoing models of the welfare effects of copyright scope is that determining the net welfare effects of any given change in copyright doctrine is extremely difficult. Even if a cost-benefit analysis of the welfare effects

[140] Landes and Posner, The Economic Structure of Intellectual Property Law, supra note 1, at 84.

of a change in copyright scope with respect to one particular group was clear, the net welfare effect across all affected groups remains uncertain. It would be difficult to say prospectively whether a change in the law that made Hollywood blockbusters less profitable but expanded the freedom of independent film makers was a net positive, especially because each provides the infrastructure for the other in some fashion. Empirical evidence of the effect of changes in copyright scope has the potential to further clarify the nature of the welfare-scope relationship, but subject to both *inter*- and *intra*-industry variation.

The welfare-scope relationship is both complicated and subject to substantial variation, both within and between industries. Doctrinal recommendations which simply assume that the welfare effects of a change in copyright scope are easily ascertainable are far too simplistic. Even where data is available, it will be open to competing explanations and extrapolations. Furthermore, advocates of industry focused tailoring solutions must consider whether intra-industry variation might not be just as significant as the inter-industry variation they seek to design policy around.

In summary, the insights offered by the analysis of copyright scope in this article go well beyond the mere assertion that infinite copyright is undesirable (although that is an important starting point). In particular, the forgoing analysis has established the following:

(1) The efficiency of private ordering is the key determinant of the ideal level of copyright scope.

(2) The welfare-scope relationship is both complicated and subject to substantial variation, both within and between industries.

(3) Doctrinal recommendations that focus on optimizing the scope of copyright in the abstract but do not account for the effect of a doctrinal change on transaction costs or uncertainty are necessarily incomplete.

The next part applies these conclusions as metrics for assessing the primary law and economics approaches to copyright's fair use doctrine.

PART III – APPLICATION TO FAIR USE

This part builds on the previous sections of the article by assessing the predominant law and economics approaches to copyright's fair use doctrine in light of the conclusions above. The conclusions from the previous part can be restated as metrics or benchmarks for analysis as follows:[141]

(1) Does the recommended application take account of the role of private ordering in determining the ideal scope of copyright?

(2) Is the recommended application doctrinally efficiency?

(3) Is the recommended application feasible in light of the expectation that there will be substantial variation, both within and between industries, in the welfare-scope relationship?

By applying these metrics for assessing doctrinal proposals, this article illustrates how the gap between the traditional law and economics of copyright and specific doctrinal analysis can be bridged. The development and application of these metrics does not definitively determine which doctrinal proposals are either efficient or normatively desirable, but it makes a contribution by filtering out some ill-conceived recommendations, and by identifying areas for improvement in others. The analysis that follows is devoted to the traditionally "troublesome" doctrine of fair use,[142] but the metrics developed in this article can be applied to wide range of doctrinal recommendations in copyright.

[141] The metrics have been reordered to suit the application that follows.
[142] See, Dellar v. Samuel Goldwyn, Inc., 104 F.2d 661, 662 (2nd Cir. 1939).

The two primary law and economics contributions to the fair use doctrine, the market failure test and the application of a cost-benefit analysis present a puzzling contradiction. Resting on an initial presumption of efficient private ordering, the market failure approach places a heavy burden on defendants to establish fair use.[143][144] In contrast, the cost-benefit approach manifests a deep pessimism in the capacity of market institutions to provide the kind of flexibility that the users of copyrighted works require, and tilts the scales heavily in favor of fair use.[145] These approaches share a common foundation in law and economics, and yet they reach very different conclusions as to how judges should apply the fair use doctrine.

The following subsections outline each theory, then assess each of the theories against the metrics listed above.

A. Law and economics theories of fair use

1. Fair Use as Market Failure

Since it was first articulated by Wendy Gordon over twenty years ago,[146] the concept of *fair use as market failure* has been controversial,[147] and arguably misunderstood.[148]

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[143] Wendy J. Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and Its Predecessors*, 82 COLUM. L. REV. 1600, 1653-54 (1982) (hereafter, Gordon, Fair Use as Market Failure).

[144] *Id.* at 1614. (Gordon proposed a three part test as follows: "Fair use should be awarded to the defendant in a copyright infringement action when (1) market failure is present; (2) transfer of the use to defendant is socially desirable; and (3) an award of fair use would not cause substantial injury to the incentives of the plaintiff copyright owner.")

[145] Variations of a cost-benefit analysis of fair use have been proposed by a number of scholars, most comprehensively by William Fisher and Glynn Lunney. See William W. Fisher III, *Reconstructing The Fair Use Doctrine*, 101 HARV. L. REV. 1661 (1988); Glynn S. Lunney, *Fair Use and Market Failure: Sony Revisited*, 82 B.U. L. REV. 975 (2002). See notes __ – __ *infra* and accompanying text.

[146] Gordon, Fair Use as Market Failure, *supra* note 143, at 1653-54.

[147] See for example: Raymond Shih Ray Ku, *Consumers and Creative Destruction: Fair Use Beyond Market Failure*, 18 BERKELEY TECH. L. J. 539 (2003); Lunney, Sony Revisited, supra note 145; Robert P. Merges, *The End of Friction? Property Rights and Contract in the "Newtonian" World of On-Line Commerce*, 12 BERKELEY TECH. L.J. 115, 130-34 (1997); and Lydia Pallas Loren, *Redefining The Market Failure Approach to Fair Use in an Era of Copyright Permission Systems*, 5 J. INTELL. PROP. L. 1 (1997).

[148] According to Gordon herself. See Gordon, *Market Failure and Intellectual Property: A Response To Professor Lunney*. 82 B.U. L. REV. 1031 (hereafter, Gordon, Market Failure and Intellectual Property). See also Merges, The End of Friction, *supra* note 147, at 130.

Nonetheless its influence is undeniable.[149] The essential logic of the fair use as market failure paradigm is that strong property rights facilitate an efficient market in the exploitation of creative works, but that on occasions where that market fails, exceptions to strong property rights in the form of fair use have to be made.[150]

Applications of Gordon's market failure framework have largely concentrated on the role of transaction costs[151] in justifying fair use.[152] However, it is important to note at the outset that Gordon's initial formulation also addressed other potential causes of market failure, including externalities and "non-economic motivations."[153] Gordon's original test for applying fair use required the defendant to establish three things: (1) the presence of market failure; (2) the social desirability of allowing the defendant's unauthorized use to continue; and (3) that finding fair use would not cause substantial injury to the incentives of the copyright owner.[154]

There have been many attempts to apply fair use as market failure to extrapolate an efficient application of the fair use doctrine in particular situations. For example, Landes and Posner reframe the fair use status of parody in terms of a failure in the market for permission to criticize in the form of a derivative work.[155] A failure of the market for permission to

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[149] Gordon's *Fair Use as Market Failure* has been cited with approval by the Supreme Court in Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417, 478 (1984) (Justice Blackmun, in dissent); Harper & Row, Publishers, Inc. v. Nation Enterprises, 471 U.S. 539, 559 (1985) (O'Connor, J., per curium); and by the Second Circuit in Leibovitz v. Paramount Pictures Corp., 137 F.3d 109, 115 (2d Cir. 1998); by the Seventh Circuit in Ty, Inc. v. Publ'ns Int'l, 292 F.3d 512, 517 (7th Cir. 2002); by the Ninth Circuit in Fisher v. Dees, 794 F.2d 432 (9th Cir. 1986) and Worldwide Church of God v. Philadelphia Church of God, Inc., 227 F.3d 1110, 1119 (9th Cir. 2000); In addition, Gordon's *Fair Use as Market Failure* was clearly influential in the Second Circuit's decision in American Geophysical Union v. Texaco Inc., 60 F.3d 913 (2d Cir. 1994).

[150] See, Robert P. Merges, *Are You Making Fun of Me? Notes on Market Failure and the Parody Defense in Copyright*, 21 AM. INTELL. PROP. L. ASS'N Q.J. 305, 307 (1993) (noting that deviations from a presumption against fair use "must be pleaded with special facts, and convincingly.")

[151] The term 'transaction cost' broadly refers to any cost incurred in relation to an economic exchange. See Tirole, *supra* note 38, at 29.

[152] See note __ *infra.*

[153] Gordon, Fair Use as Market Failure, *supra* note 143.

[154] *Id.,* at 6014. Note that Gordon no longer holds to the third element of her proposed test. See Gordon, Intellectual Property and Market Failure, *supra* note 148, at 1034-1035.

[155] Landes and Posner, *supra* note 1, at 359 – 360.

parody appears inevitable, since it would be unrealistic to expect authors to voluntarily allow themselves to be criticized.[156] Although this is a convincing explanation, it fails to identify exactly *why* the author's subjective value in not being ridiculed should not be fully represented.[157] As Alfred Yen argues, the idea that parody represents a market failure rests on a value judgment that the author's anti-dissemination motives should be given less respect than other preferences.[158] As a matter of copyright doctrine, this is fairly easy to explain. Copyright does not exist for the benefit of individual authors, but rather for the promotion of the progress of science and the useful arts.[159] Given that rationale, a preference for dissemination seems obvious. But, from an abstract utility maximizing perspective, it is hard to see why we shouldn't be completely neutral about an author's desire to suppress information. In which case, anti-dissemination motives are not a source of market failure.[160]

Landes and Posner also regard quotation and reference in the service of review and criticism more generally as justified under a market failure approach.[161] The authors argue that if reviews depended on consent, they would lose credibility with the public and therefore be less valuable to both authors and the public.[162] Consequently, the benefits of a no-consent rule to authors as a class outweigh the individual interests of those authors who get bad reviews. From a game theory perspective, this can be framed as a simple coordination problem. However, applying the logic of Merges' *Contracting Into Liability Rules* to the problem

[156] As the Supreme Court notes in *Campbell*, "People ask for criticism, but they only want praise." Campbell v. Acuff-Rose Music, 510 U.S. 569, 592 (U.S. 1994) (quoting from S. Maugham, Of Human Bondage 241 (Penguin ed. 1992))

[157] See, Alfred C. Yen, *When Authors Won't Sell: Parody, Fair Use and Efficiency in Copyright Law*, 62 U. COLO. L. REV. 79 (1991).

[158] *Id.*

[159] U.S. Const. Art 8.

[160] Yen, *supra* note 157, at 79.

[161] Landes and Posner, *supra* note 1, at 358.

[162] *Id.,* at 359.

of reviews,[163] one might ask why we should not simply rely on the emergence of market mechanisms to overcome such problems. If authors as a class really benefit from reviews, they should find some contractual mechanism to enable them to pre-commit to allowing reviews.[164]

Furthermore, in response to the recent extension of duration,[165] a number of authors have suggested that courts should adjust the scope of copyright protection to account for the passage of time by expressly considering time as a factor in fair use analysis.[166] Joseph Liu argues that as a work becomes older, the ability of the author to prevent re-use, critique, transform, and adaptation of that work should diminish, i.e. "fair use should be greater for Mickey Mouse than for Harry Potter."[167] Richard Posner and William Patry present a proposal that is similar, but more clearly framed within the market failure paradigm. They suggest that the problem of obtaining licenses to reproduce old works of limited commercial value also merits fair use.[168]

2. A Cost-Benefit Approach to Fair Use

In the course of his epic reconstruction of the fair use doctrine, William Fisher proposes an altogether different law and economics based approach to resolving fair use cases. Fisher suggests that fair use cases should be determined through a detailed examination of the costs and benefits of the incentives and impositions resulting from

[163] See note 108 *supra* and accompanying text.

[164] Reasons why this may not be the case are addressed below, see notes __ – __ and accompanying text.

[165] See, Copyright Term Extension Act (1998).

[166] Joseph P. Liu, *Copyright and Time: A Proposal*, 101 MICH. L. REV. 409 (2002)

[167] *Id.* at 410. See also, Justin Hughes, *Fair Use Across Time*, 50 UCLA L. REV. 775 (2003) (Fewer unauthorized uses should be fair uses in the first years or decades of a copyright term, and more and more unauthorized uses should be deemed fair as a work grows older).

[168] Richard Posner and William Patry, *Fair Use and Statutory Reform in the Wake of Eldred,* 92 CALIF. L. REV. 1639 (2004).

competing uses of any given work.[169] The "cost" of allowing fair use is the notional reduction in the copyright owner's incentives compared to what they might have been, had fair use not been allowed. The copyright owner's potential incentives in this calculation include any licensing revenue she could have extracted from the defendant or any similarly situated persons.[170] The "benefit" of allowing fair use is that the defendant is neither denied the use of the work, nor is she forced to pay the copyright owner for that use. Again, this includes not just the actual defendant, but also all similarly situated potential defendants.[171]

The idea of resolving fair use decisions through a cost-benefit analysis is simple to state, but difficult to apply. Under Fisher's approach, a judge would have to catalog every conceivable type of use of a work, ranging from reprints to action figures and beyond, then to determine the value of each potential use, rank them, and weigh them against the range of costs to the current and other future possible defendants.[172]

Glynn Lunney offers another version of a cost benefit analysis for fair use.[173] Lunney urges courts to regard the four statutory factors as historically dated "proxies for the balance of competing public interests" and adopt a more general cost-benefit approach to the fair use.[174] Similar to Fisher, Lunney argues that, "[i]n an ideal world with perfect information, courts could resolve the fair use issue by determining precisely the social value of additional authorship resulting from prohibiting a use and then comparing that value to the social value

[169] Fisher, *supra* note 145. A cost-benefit analysis is also the second limb of Gordon's test, once the initial screen of market failure has been satisfied. Although Gordon's formulation is slightly different, in that she would determine whether allowing fair use was socially beneficial by asking whether "when the "market failure" were cured, the price that the owner would demand is lower than the price that the user would offer." Gordon, Fair Use as Market Failure, *supra* note 143, at 1614.

[170] Fisher, *supra* note 145, at 1699.

[171] *Id.*

[172] *Id.*

[173] Lunney, Sony Revisited, *supra* note 145, at 1023.

[174] *Id.*, at 998.

of allowing the use to continue."[175] What is striking about this formulation is that it suggests that the ideal resolution of fair use cases rests literally on a case-by-case analysis. Whether this is what Lunney actually intended, or merely a paradigmatic extrapolation, is unclear. Accordingly, the application of the metrics that follows considers a cost-benefit analysis applied on a purely case by case level, a highly specified level that required a new cost-benefit analysis for all but the narrowest of factual classes, and a cost-benefit analysis applied at a much broader industry level.

B. Applying the doctrinal metrics to fair use as market failure

1. The efficiency of private ordering

The first test of any law and economics based doctrinal recommendation should be whether it takes account of the relationship between the ideal level of copyright scope and the efficiency of private ordering. *Prima facie*, the market failure approach to fair use would seem to pass this test with flying colors, but a more detailed analysis suggests some grounds for qualification. Although the market failure test for fair use is appropriately focused on the central question of whether the market is working or not, the mechanics of the test are loaded significantly in favor of false positives, i.e., of concluding that the market is working when in fact it is not.[176] In particular, the requirement that the defendant prove the existence of market failure as a prerequisite for a finding of fair use[177] tilts this apparently neutral framework decidedly in favor of the copyright owner.

The allocation of the burden of proof in fair use cases is extremely important because of the difficulty of actually proving that a market is or is not working. The Supreme Court's *Sony* decision illustrates an evidentiary stalemate typical of fair cases: the movie studios were

[175] *Id.*

[176] See Wu, *supra* note 29 on the distinction between Type I and Type II errors and their comparative desirability.

[177] Gordon, Fair Use as Market Failure, *supra* note 143, at 1614.

unable to establish that time-shifting actually resulted in an adverse market effect, but nor could Sony establish that such an effect would not occur in the future. Ultimately, the case turned on the majority's presumption that non-commercial uses were fair uses. [178] Transaction costs, externalities and "non-market motivations" are always present to some degree in real world markets. Consequently, merely identifying the existence of one or more potential causes of market failure will never be sufficient; the defendant (or the plaintiff) must establish that these market imperfections are of a sufficient degree to constitute a market failure.

The presence of transaction costs that exceed the potential gains from trade between a copyright owner and a subsequent user is probably the most common rationalization for findings of fair use.[179] The term 'transaction cost' broadly refers to any cost incurred in relation to an economic exchange.[180] At a minimum, participants in the market for copyright permissions must (1) determine what permissions they require (2) locate all potential rights holders, and (3) negotiate with those rights holders over prices and terms. Additionally, there may also be costs to maintaining and enforcing agreements.[181] Transaction costs are significant because they may prevent otherwise efficient reallocation from taking place.[182] For example, even though library users might be willing to pay a small price for permission to photocopy from text books and journal articles, they are probably unwilling to also bear the costs of contacting the relevant copyright owners and negotiating a license. If transaction

[178] Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417, 449 (1984) ("If the Betamax were used to make copies for a commercial or profit-making purpose, such use would presumptively be unfair. The contrary presumption is appropriate here, however, because the District Court's findings plainly establish that time-shifting for private home use must be characterized as a noncommercial, nonprofit activity.")

[179] Gordon, Fair Use as Market Failure, *supra* note 143.

[180] See, supra note 151.

[181] Gordon, Fair Use as Market Failure, *supra* note 143.

[182] *Id.* (When the transaction costs outweigh the net benefits that the parties would otherwise anticipate from a transfer, then the presence of the transaction costs may block an otherwise desirable shift in resource use.)

costs exceed the potential gains from trade, the market will fail to allocate resources efficiently.[183]

Although identifying potential sources of transaction costs is relatively easy, proving that they are, and will remain, so significant that the market has failed, is considerably more difficult. Indeed, a number of authors stress that exceptions to copyright based on transaction costs should be granted only sparingly.[184] As Rob Merges explains, one reason is that the presence of transaction costs creates an incentive for innovative market solutions that reduce transaction costs in the long term, without the disadvantages of judicial or government regulation.[185] Merges' analysis suggests that even the identification of apparent market failures in the short run does not merit limiting the scope of the copyright owner's rights because, in the long run, the market itself will address these problems.[186] A second reason often given as to why courts should not intervene in the face of transaction costs is that advances in technology may enable more efficient private ordering, by reducing transactional barriers and enabling copyright owners to control their works more effectively through the use of sophisticated permissions systems and digital rights management.[187] Some scholars have even predicted that these technological developments may obviate the need for the fair use doctrine entirely.[188] For both these reasons, transaction cost stories are easy to

[183] Note that with respect to copyright, the potential gains from trade are normally equal to the user's valuation of the right to make a copy, because the good in question is nonrivalrous. Consequently, where transaction costs are greater than a user's valuation, the market will fail to allocate resources efficiently. In such cases, the would-be second user can either heed the exclusive rights of the copyright owner and forego the activity, or she can ignore those rights and reap the benefit of that use. Where transaction costs make licensing impossible, the copyright owner is neither benefited nor disadvantaged by unauthorized uses of a work; no matter what choice the would-be second user makes, the copyright owner gets nothing and loses nothing.

[184] Merges, *supra* note 108. See also, Landes and Posner, *supra* note 1, at 358.

[185] Merges, *Id.*

[186] See, *Id.*

[187] See, Goldstein, *supra* note 82, at 223-24. See Cohen, *supra* note 8, for an extensive discussion of this school of thought and its limitations.

[188] See, e.g. Bell, *supra* note 94.

tell but hard to prove, thus elevating the significance of the market failure test's allocation of the burden of proof.

The allocation of the burden of proof onto the defendant is likely to be even more loaded against finding fair use where the defendant's case relies not on transaction costs, but on less tangible causes of market failure such as externalities or non-economic motivations. There is a significant literature criticizing narrow applications of the market failure approach for their failure to account for externalities, which does not need to be repeated here.[189] The problem for a defendant seeking to prove market failure (or for a plaintiff seeking to disprove it) is that the market failure approach itself gives little guidance as to *what degree* of positive externalities or non-economic motivations might justify the application of fair use. For example, it might be true that billionaire industrialist Howard Hughes bought up all the copyrights in magazine stories chronicling his life in an attempt to suppress that information.[190] But without a mechanism to value Hughes' interests differently to his own subjective valuation (as measured by his willingness to pay, and presumed unwillingness to license), simply describing the copyright owner's motives as "non-economic" is not analytically useful by itself.[191]

Labeling someone as "irrational" does not amount to a systemic analysis of the efficiency of private ordering. From the perspective of law and economics, a better approach to assessing the efficiency of private ordering in such cases would be to rely on the insights of the literature on game theory or behavioral economics to identify scenarios where the market is likely to fail.[192] Perhaps the most prominent application of game theory analysis in

[189] Loren, *supra* note 147, Lemley, Economics, *supra* note 8 Cohen, *supra* note 8; Frischmann, Infrastructure, *supra* note 8.

[190] Rosemont Enterprises, Inc. v. Random House, Inc., 366 F.2d 303, 311-312 (2d Cir., 1966).

[191] This is similar to Yen's point about parody. See Yen *supra* note 157.

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the intellectual property literature is Michael Heller's "anticommons theory."[193] Heller and Rebecca Eisenberg have suggested that unlike the familiar "tragedy of the commons" which leads to over-use of a scarce resource,[194] in some circumstances fragmented ownership of upstream rights can lead to an anticommons, the under-use of a valuable resource.[195] In the biotechnology context, Heller and Eisenberg argue that the availability of patents on gene fragments threatens to create an anticommons, thus stifling the process of drug discovery.[196] As the authors explain, the increasing patentability of gene fragments known as ESTs (expressed sequence tags),[197] means that any one downstream company seeking to develop a commercial end-product must negotiate with a multitude of upstream rights holders, any one of whom has the power to hold up the product.[198]

As Ben Depoorter and Francesco Parisi suggest, courts should take into account: (i) the number of copyright holders; (ii) the degree of complementarity between the copyrighted inputs; and (iii) the degree of independence between the various copyright holders.[199] Additional factors courts should also take into account include: (iv) the second generation author's degree of uncertainty as to the value of any one input or the value of the final product; (v) the extent to which potential hold-up problems would unduly deter second

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[193] Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets,* 111 HARV. L. REV. 621, 675 (1998). This is not actually an intellectual property piece but much of its subsequent application has been in intellectual property, see, e.g. Michael A. Heller and Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research,* 280 SCI. 698 (1998) (Anticommons theory applied to patents on gene fragments and other biological materials).

[194] See, Garret Hardin, *The Tragedy of the Commons*, 162 SCI. 1243 (1968).

[195] Heller, *supra* note 193, at 624.

[196] Heller and Eisenberg, *supra* note 193. (A proliferation of intellectual property rights upstream may be stifling life-saving innovations further downstream in the course of research and product development)

[197] An Expressed Sequence Tag is a tiny portion of an entire gene that can be used to help identify unknown genes and to map their positions within a genome. See, National Center for Biotechnology Information, *A Basic Introduction to the Science Underlying NCBI Resources*, available at http://www.ncbi.nlm.nih.gov/About/primer/est.html.

[198] This is especially problematic in the context of royalty stacking and reach-through license provisions. See Robin C. Feldman, *The Insufficiency of Antitrust Analysis for Patent Misuse*, 55 HASTINGS L.J. 399, 442 (noting that NIH guidelines strongly discourage the use of Reach-Through Royalties)

[199] Ben Depoorter and Francesco Parisi, *Fair Use and Copyright Protection: A Price Theory Explanation*, 21 INT'L REV. L & ECON. 453 (2002). (Concluding that "viewed in light of the anticommons theory, fair use doctrines retain a valid efficiency justification even in a zero transaction cost environment.")

generation authors; and (vi) whether transactions are too heterogeneous to allow market based solutions to develop.

These factors can in turn be incorporated into the common law doctrine of fair use and provide a more discriminating basis for determining the allocation of the burden of establishing whether the market is working or not. Returning to the application of fair use to criticism, quotation and review, it seems unlikely that market driven opt-in mechanisms would develop given that authors, sensitivity to criticism, expectation of criticism and countervailing desire for publicity are all heterogeneous.[200]

In addition to considerations arising from game theory and behavioral economics, some of the recent literature on industrial organization and intellectual property may also identify situations in which the consequences of market failure will be most severe, and therefore where an over-inclusive fair use standard is preferable to an under-inclusive formulation.[201]

In summary, the market failure approach to fair use does take account of the role of private ordering in determining the optimum scope of the copyright owner's rights. However, a more nuanced approach to determining whether it is the defendant or the plaintiff carries the burden in relation to market failure would improve the approach.

2. Doctrinal efficiency

To the extent it effectively forecloses opportunities for the application of the fair use doctrine, the market failure test is appealing in terms of administrative efficiency. However, adopting the market failure test in its current form would constitute a significant expansion of copyright scope. Invariably requiring the defendant to establish market failure implicitly

[200] Another is that reviews uncompromised by the author's consent generate more significant positive externalities than reviews with permission.

[201] See, Wu, *supra* note 29.

assumes that the copyright owner's rights are absolute and that any deviation from those rights requires substantial justification. This formulation does not sit well with the either the text of the Copyright Act, or the case law applying the fair use doctrine. All of the copyright owner's exclusive rights under the Copyright Act are expressly qualified as "subject to" fair use.[202] Although the courts have been less than clear as to the exact procedural status of fair use,[203] the fact that, procedurally, fair use must be asserted as an affirmative defense,[204] does not mean that it is always the defendant who carries the burden of proof once the defense has been properly raised.[205]

In short, the market failure approach to fair use would be doctrinally efficient, but if applied in its current form it would also significantly expand the scope of copyright. As suggested above, the market failure approach would be improved if it was modified to include a more discriminating allocation of the burden of proof. Admittedly, modifying this rather arbitrary feature of the test would reduce the efficiency of the doctrine to some degree, but trade would seem to be worthwhile.

3. Variation in the scope-welfare relationship

The third metric asks whether the recommended application is feasible in light of the expectation that there will be substantial variation, both within and between industries, in the welfare-scope relationship. Gordon's market failure test addresses this by calling for a cost-

[202] See 17 U.S.C. § 106 (2005). Note also that the existence of the fair use doctrine has advantaged copyright owners as a class by enabling their rights to be broadly defined in the first place. See, Sag, *supra* note 63.

[203] Compare, Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417, 449 (U.S. 1984); with Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 590 (1994).

[204] SunTrust Bank v. Houghton Mifflin Co., 268 F.3d 1257, 1260 (11th Cir. 2001). See also, Bateman v. Mnemonics, Inc., 79 F.3d 1532, 1542 (11th Cir. 1996).

[205] The Supreme Court's *Sony* decision implies that the burden of establishing fair use shifts according whether the defendant's use was "commercial" or "non-commercial." Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417, 449 (U.S. 1984) ("If the Betamax were used to make copies for a commercial or profit-making purpose, such use would presumptively be unfair. The contrary presumption is appropriate here…"). See also, Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc., 964 F.2d 965, 970 (9th Cir. 1992) ("Game Genie users are engaged in a non-profit activity. Their use of the Game Genie to create derivative works therefore is presumptively fair.")

benefit analysis in the event that the defendant is able to establish market failure. This necessarily incorporates a case-by-case cost-benefit analysis, and thus takes on all of the problems of that approach, as discussed in Part III. C. below.

There is however, no reason that a market failure approach must incorporate a cost-benefit analysis. The market failure approach accounts for variation in the efficiency of private ordering, which in turn is a significant determinant of variation in scope-welfare relationship generally. Once a court has determined that the relevant market should be presumed to have failed, or has been shown to have failed, a cost-benefit analysis seems unnecessary.

Consequently, viewed in its best light, the market failure approach to fair use addresses the variation in the scope-welfare relationship by focusing on a substantial cause of that variation – the efficiency of private ordering.

4. Overall assessment of fair use as market failure

The clear strength of the market failure approach to fair use is that it recognizes the centrality of the efficiency of private ordering and is responsive to variation in the efficiency of private ordering. The primary weakness of the market failure approach is its uniform allocation of the burden of proof with respect to the existence of market failure. This feature both predisposes the test to false positives, and is inconsistent with the judicial application of the fair use doctrine.

In the final analysis, the market failure approach to fair use performs well when assessed against the metrics developed in this article, but the metrics also highlight ways in which the market failure test could be improved. Principally, the market failure approach to fair use should adopt a more discerning basis for allocating the burden of proof. One method of doing this is to apply some of the observations form game theory, behavioral economics

and industrial organization to identify scenarios where the market is likely to fail, or scenarios in which the potential consequences of market failure justify a presumption that errs in favor of finding fair use.

C. Applying the metrics to cost-benefit approach

1. The efficiency of private ordering

In contrast to the explicit focus of the market failure test, the cost benefit approach to fair use only considers the efficiency of private ordering by implication. The cost benefit approach presumes that courts can vary the application of copyright according to the author's need for copyright incentives. Given the high degree of judicial dexterity already assumed by the cost benefit approach, it seems reasonable to assume judges could also take into consideration the likelihood that rights will be effectively redistributed by the market.

In the ideal case, a judge with perfect information could exactly tailor the application of the fair use doctrine to maximize net social welfare, i.e. to find the optimal level of copyright scope. In reality, this is quite infeasible, but even if it was possible, the costs of such an exercise would overwhelm the benefits. In the alternative, the ability of a judge to make the same kind of determination in a more generalized, industry-wide cost-benefit analysis is also questionable. This is because a test-case decision on the fairness of a particular use may be needed before copyright owners can be expected to establish workable market mechanisms. For example, one could argue that the Supreme Court's *Sony* decision was ill-advised because, if the Court had found time-shifting was not fair use, content producers and technology manufacturers would have inevitably negotiated some kind of compensation system to allow the technology to develop.[206] So, while the fact that a particular set of facts

[206] Or a statutory royalty may have been imposed by either the courts or the legislature. See, Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417, 499 (1984)

has resulted in litigation may itself indicate a specific failure of private ordering, that failure itself may have been the product of legal uncertainty rather than defective market structure.

In summary, the cost benefit approach to fair use fails to offer a plausible method to evaluate and or respond to the variation in the efficiency of private ordering.

2. Doctrinal efficiency

The second metric by which law and economics doctrinal recommendations should be assessed relates to doctrinal efficiency. As discussed in Part II, even if preliminary economic analysis suggested expanding the scope of copyright would result in a net welfare improvement, the posited welfare benefits must be off set against any welfare losses associated with the particular doctrinal change used to implement that change in scope. Failure to account for the high costs and speculative benefits of asking judges to fine tune the scope of copyright is the main defect of the paradigmatic cost benefit approach to fair use.

Although both Fisher and Lunney are somewhat vague about the level of detail to which a cost-benefit analysis should descend, both suggest that courts should analyze the balance of competing interests of the copyright owner and the public; and that resulting balance should then be applied to determine whether a particular use is fair or foul, based on its net contribution to social welfare.[207] Fisher and Lunney each acknowledge the practical difficulties inherent in resolving fair use cases through a judicial cost-benefit analysis, yet both also advocate that approach nonetheless.[208]

[207] Lunney, Sony Revisited, *supra* note 145, at 999, Fisher, *supra* note 145, at 1699.

[208] Lunney argues that "[a]lthough striking such an ideal balance in every case remains beyond the reach of our current legal and economic understanding, we can come considerably closer to the ideal balance by examining the competing public interests directly, rather than by continuing to rely on the four nineteenth century factors." Lunney, *Id.*, at 999. Similarly, Fisher asks rhetorically "[i]f such a comparative analysis must be employed in most cases, is not economic analysis in this doctrinal context hopelessly impracticable? … Even so, the analysis may have considerable value. The assumptions used … were not wildly unrealistic. Some of the conclusions reached by the hypothetical judge may survive transition to the real world. Moreover, a simplified version of the procedure might enable a court at least to increase allocative efficiency, if not to maximize it." Fisher, *Id.* at 1718-19.

Lunney is particularly detailed about what he thinks courts should do. He argues that in order to prevail against an assertion of fair use, copyright owners should demonstrate both that the use in question presents a "meaningful likelihood of actual or future harm" to the value of the work,[209] and that such harm will translate into a negative marginal effect on the output of creative works.[210] If, and only if, both reduction in market value and reduction in incentives are established by the copyright owner, should courts then balance the harm to the copyright owner with the public's interest in allowing the use to continue nonetheless.[211]

Some clue as to the extent of particularization required by Lunney's approach is found in his examples. Lunney illustrates the logic of his cost-benefit analysis through a detailed analysis of the economics of allowing unauthorized time-shifting of broadcast television through digital video recorders.[212] Lunney's intricate cost-benefit analysis of time-shifting would require a court to determine, (i) the correlation between advertising and consumer spending, (ii) the ratio of advertising to content on broadcast television, (iii) the extent to which consumer exposure to advertising has diminishing returns, (iv) the average consumer's reduced consumption of advertising, and (v) the extent to which other forms of broadcast based advertising, such as product placement, would counteract the effect of commercial skipping DVRs.[213]

A highly specific cost-benefit analysis of the economic efficiency of granting (or denying) fair use appears to be both fundamentally impractical and inherently speculative. These concerns are addressed in turn.

[209] Lunney, Sony Revisited, *supra* note 145, at 1000.
[210] *Id.*, at 1023.
[211] *Id.*
[212] *Id.*, at 1000 – 1014.
[213] This fifth consideration was not mentioned by Lunney, which further illustrates the difficulty of the task he envisages. See Lunney, Sony Revisited, *supra* note 145.

First, although courts are capable of deciding complex questions of fact and weighing expert testimony across a whole range of issues, the notion that a highly specified cost-benefit analysis would be an efficient use of scarce judicial resources strains credibility. The extensive industry surveys and lengthy economists' briefs required to answer such questions are likely to exceed the patience of most courts and the resources of most parties. As many fair use cases involve new technologies, courts should be particularly "mindful of the limitations facing judges where matters of technology are concerned." [214]

Second, finding the optimum level of copyright scope for any given market is inherently speculative. For example, a court asked to rule against the use of lengthy plot summaries in film reviews would have to consider the following: (i) the potential increase in revenue to the copyright holder from licensed plot summaries; (ii) the effect of that potential increase in revenue on the production of films; (iii) the potential decrease or increase in the public's enjoyment of film reviews; and (iv) the likely effect on the public's demand for films. As with Lunney's own example of the DVR, the net welfare consequences are extremely uncertain and could easily tip one way or the other based on minor changes in the court's underlying assumptions.

Adding to this impracticality is the possibility of unforeseen interactions between variables. The peculiar economics of intellectual and creative output may result in unauthorized uses actually benefiting copyright owners,[215] in spite of vigorous protestations to the contrary. An unauthorized use might expand the market for the original work and

[214] MGM Studios Inc. v. Grokster, Ltd., 125 S. Ct. 2764, 2792 (2005) (Justice Breyer concurring). ("Judges have no specialized technical ability to answer questions about present or future technological feasibilility or commercial viability where technology professionals, engineers, and venture capitalists themselves may radically disagree and where answers may differ depending upon whether one focuses upon the time of product development or the time of distribution.")

[215] Gregory M. Duhl gives three examples of this perverse effect: unauthorized fan comics in Japan, unauthorized home video recording, and unauthorized music sampling. See Gregory M. Duhl, *Old Lyrics, Knock-Off Videos, And Copycat Comic Books: The Fourth Fair Use Factor In U.S. Copyright Law*, 54 SYRACUSE L. REV. 665, 668. (2004).

thus benefit the copyright owner. The *Sony* decision provides the paradigm example: in 1981 the head of the Motion Picture Association of America (MPAA) told Congress that "the VCR is to the American film producer and the American public as the Boston strangler is to the woman home alone."[216] And yet, MPAA members now earn a significant proportion of their revenues from VCR sales and DVD sales;[217] the Boston strangler was never so generous. The Supreme Court's willingness to speculate as to the potential market expansive effects of unauthorized uses in what was widely perceived as a test case, does not itself suggest that courts should routinely engage in this kind of speculation, or that similar cases should be reargued whenever there is a minor change in the underlying economics of the broadcast industry (such as a demographic shift) or the technology of home recording (such as a faster fast-forward button).

Of course, impracticality is not necessarily fatal to a proposed legal reform; the suggested course of action can be taken as aspirational, not literal. Fisher argues that courts would benefit from implementing his proposed cost-benefit analysis in spite of its practical limitations. According to Fisher, the method has value as a means through which courts might at least "increase allocative efficiency, if not to maximize it."[218] However, a highly specified cost-benefit analysis of the merits of fair use is not simply an unrealistic ideal, it is fundamentally ill-conceived. The root of the problem is that a highly specified cost-benefit analysis trades doctrinal efficiency for the promise of more perfect allocative efficiency, a promise that is in most cases simply illusory.

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[216] Home Recording of Copyrighted Works: Hearings on H.R. 4783, H.R. 4794, H.R. 4808, H.R. 5250, H.R. 5488, and H.R. 5705 Before the Subcomm. on Courts, Civil Liberties, and the Administration of Justice of the House Comm. on the Judiciary, 97th Cong, 2d Sess. 5 (1982) (statement of Jack Valenti, President, Motion Picture Association of America).

[217] According to the MPAA, there was a $22 Billion market for DVDs and VHS tapes in the U.S. alone in 2002. See, Motion Picture Association of America, *2003 Piracy Fact Sheets: US Overview*, available at http://www.mpaa.org/PiracyFactSheets/PiracyFactSheetUS.pdf.

[218] Fisher, *supra* note 145, at 1719.

In addition to its practical limitations in any given case, the benefits of a highly specified cost-benefit approach to fair use are almost certainly outweighed by its broader effects on the copyright system. First, an individuated cost-benefit analysis is inconsistent with the general universality of the copyright law. Copyright vests equally in grocery lists and love letters, which do not depend on copyright's incentives for their production and distribution, as well as novels and encyclopedias, which typically do. The extent of copyright protection does vary from work to work, because of the requirements of the idea-expression distinction, but this modification is independent of any assessment of the need for incentive.[219] Asking courts to fine-tune copyright protection based on an assessment of the author's need for incentive runs contrary to the universalism of the current copyright system. As the Fifth Circuit held in *Mitchell Brothers*:

> Congress has concluded that the constitutional purpose of its copyright power, to promote the Progress of Science and useful Arts, is best served by allowing all creative works (in a copyrightable format) to be accorded copyright protection regardless of subject matter or content, trusting to the public taste to reward creators of useful works and to deny creators of useless works any reward. [220]

Indeed, the more case-specific rules become, the less point there is to having a copyright system at all. As Louis Kaplow observed in relation to the intersection between antitrust law and patent law:

> In theory, direct reward systems are preferable because they avoid the monopoly costs associated with a general patent system. A central reason for reliance on a patent system is that it is thought to be too difficult to determine the appropriate level of reward fairly and accurately on a case-by-case basis. [221]

[219] See Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349 (1991) (Copyright in a factual compilation is thin. Notwithstanding a valid copyright, a subsequent compiler remains free to use the facts contained in another's publication to aid in preparing a competing work, so long as the competing work does not feature the same selection and arrangement.)

[220] Mitchell Bros. Film Group v. Cinema Adult Theater, 604 F.2d 852, 855 (5th Cir. 1979) (quotes omitted).

[221] Louis Kaplow, *The Patent-Antitrust Intersection: A Reappraisal*, 97 HARV. L. REV. 1813, 1844 (1984).

The same reasoning applies to copyright and fair use. The cost-benefit logic suggests that, in every single case or at least in a highly specified subset of cases, judges should attempt to perfectly balance the author's incentive requirements with the public benefits of increased access. In any individual case, this analysis is unlikely to be able to be properly undertaken by any judge. In the aggregate, if this approach were taken, any welfare gains achieved by fine-tuning copyright scope would be outweighed by the losses in doctrinal efficiency. Doctrinal efficiency in copyright necessitates both under-protection and over-protection; consequently, even copyright pessimists must endure some measure of optimism for the sake of an efficient universal system. In terms of the copyright system generally, highly specified cost-benefit judging would make copyright legislation redundant. Indeed, the logical conclusion of the cost-benefit approach is that legislative guidance on copyright law should be entirely replaced by individually crafted judicial determinations of rights.

Second, any benefits of applying a cost-benefit approach to fair use in individual cases would also be outweighed by its broader effects on the copyright system, because the narrow fact findings of such cases would have little or no value as precedent. In our common law judicial system, litigation has both a private and public benefit: it resolves disputes between the parties and develops and/or clarifies the law for the benefit of all society.[222] If fair use decisions were arrived at by comparing the precise social value of additional authorship resulting from prohibiting an unauthorized use against the social value of allowing the unauthorized use to continue, subsequent cases with similar facts could be decided differently based only on esoteric questions of valuation or minor changes in the underlying markets. The cost benefit approach invites the losing plaintiffs in the *Sony* case to start litigation all over again in response to demographic changes or shifts in consumer tastes.

[222] —

Any change in these factors could tip the balance of competing interests between the copyright owners and the public, even though none of them relate to the actions of VCR manufacturers.

The chilling effect of law without significant precedent value poses a significant threat to continued innovation in technologies that have both infringing and non-infringing uses and to free expression more generally. The entire purpose of the staple article of commerce doctrine applied in *Sony* is to provide *ex ante* certainty to those who develop new products.[223] The aim of the staple article of commerce doctrine is clearly undermined if the results of litigated cases are so easily disturbed as the logic of a cost benefit analysis implies. As Justice Breyer's concurring opinion in *Grokster* explains, without the ability to rely on the existence of a substantial non-infringing use:

> Inventors and entrepreneurs (in the garage, the dorm room, the corporate lab, or the boardroom) would have to fear (and in many cases endure) costly and extensive trials when they create, produce, or distribute the sort of information technology that can be used for copyright infringement. They would often be left guessing as to how a court, upon later review of the product and its uses, would decide when necessarily rough estimates amounted to sufficient evidence. They would have no way to predict how courts would weigh the respective values of infringing and noninfringing uses; determine the efficiency and advisability of technological changes; or assess a product's potential future markets. The price of a wrong guess -- even if it involves a good-faith effort to assess technical and commercial viability -- could be large statutory damages (not less than $ 750 and up to $ 30,000 per infringed work). 17 U.S.C. § 504(c)(1). The additional risk and uncertainty would mean a consequent additional chill of technological development.[224]

The Supreme Court's emphasis on a case-by-case approach to fair use does not suggest that all traces of precedent should be removed from fair use jurisprudence.[225]

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[223] MGM Studios Inc. v. Grokster, Ltd., 125 S. Ct. 2764, 2791 (2005) (Justice Breyer concurring).

[224] MGM Studios Inc. v. Grokster, Ltd., 125 S. Ct. 2764, 2793 (U.S. 2005).

[225] Campbell v. Acuff-Rose Music, 510 U.S. 569, 577, 581 (1994) (The task is not to be simplified with bright-line rules, for the statute, like the doctrine it recognizes, calls for case-by-case analysis.); Harper & Row, 471 U.S. 549, 561, 597; Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417, 495 (1984).

Indeed, the Court has crafted broad fair use exemptions for both parody and criticism which are entirely untethered to a cost benefit analysis. As the Court clearly stated in *Campbell*:

> [T]here is no protectable derivative market for criticism. The market for potential derivative uses includes only those that creators of original works would in general develop or license others to develop. Yet the unlikelihood that creators of imaginative works will license critical reviews or lampoons of their own productions removes such uses from the very notion of a potential licensing market.[226]

Congress has clearly indicated that the courts should continue to develop the fair use doctrine through the common law.[227] The common law requires the development of principles, not the mere determination of cases. Decided cases should offer some guidance to copyright owners and members of the public alike, as to which activities are likely to be infringing and which are not.

Doctrinal efficiency is far more than just a question of the frequency of litigation. Reliance on the judicial process (or an administrative process) magnifies the level of uncertainty faced by all potential parties and multiplies opportunities for strategic behavior.[228] As I have suggested elsewhere, it may be the case that the uncertainty costs of a flexible fair use doctrine are worth the benefits,[229] but it would still be wise to try to keep those costs contained. In its paradigm form, the cost-benefit approach treats welfare as purely determined by the sum of costs and benefits in individual cases, without regard to either the costs of state action or the likely multiplication of cases and threats of litigation.

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[226] Campbell v. Acuff-Rose Music, 510 U.S. 569, 592 (1994). Admittedly, the clarity of this statement is somewhat diminished by the Court's insistence that the adjudication of fair use cases is "not to be simplified with bright-line rules." *Id.* at 277.

[227] In enacting 17 U.S.C. § 107, Congress meant to restate existing judicial doctrine of fair use, not to change, narrow, or enlarge doctrine in any way, and intended that courts continue common law tradition of fair-use adjudication. See, Campbell v Acuff-Rose Music 510 U.S. 569, 577 (1994).

[228] See Part II. C., *supra*.

[229] Sag, *supra* note 63.

3. Variation in the scope-welfare relationship

The third metric that can be used to assess law and economics doctrinal recommendations focuses on the variation and complexity of the scope-welfare relationship. It asks whether the recommended application is feasible in light of the expectation that there will be substantial variation, both within and between industries, in the welfare-scope relationship. The paradigm case by case cost-benefit analysis clearly addresses the need to account for variation in the scope-welfare relationship, but it must be rejected under the doctrinal efficiency criteria for the reasons given above. A more broadly based cost benefit approach to fair use, one that varied industry by industry, as opposed to case by case, avoids most of the gross doctrinal inefficiency of the paradigm model but necessarily trades off greater efficiency for a less nuanced account of variation in the welfare-scope relationship.

Arguably, the paradigm case is just an idealization, and is not meant to be taken literally. However, even if we assume that a cost-benefit approach should be applied in a more general fashion, to classes of works, rather than individual works,[230] we are still left with the problem of deciding where to draw the boundaries between classes.

As briefly discussed in Part II, although tailoring specific doctrines to the need for incentives in particular industries may be desirable in theory, its application is hazardous. There are at least five hazards worth exploring:

(1) Industries are constantly evolving, thus industry definitions are inherently fluid and resist legal definition;

(2) Legal proceedings may become dominated by questions of taxonomy as the parties lobby for competing industry definitions;

[230] Loren seems to indicate the former, Lunney the later. See Loren, *supra* note 147, at __; Lunney, Sony Revisited, *supra* note 145.

(3) Intra-industry variation may be just as significant as inter-industry variation depending on the level of generality of the industry definition used;

(4) Inter-industry effects are likely to be ambiguous;

(5) Industry tailoring may have negative effects on the overall political economy of copyright law.

This is not to suggest that industry tailoring is never appropriate, rather that its feasibility must be carefully considered. However, an industry tailoring approach to the fair use doctrine seems particularly unworkable for all of the reasons given above.

The first three hazards relate to the difficulty of defining exactly where one industry stops and another begins. Although a number of authors have recommended a status driven approach to fair use, one that preferences educators, scientists and news reporters,[231] it is by no means clear what the boundaries of any of these classes might be.

The broader the industry definition used, the more likely it is that intra-industry variation be as significant as the inter-industry variation which supposedly justified a tailored approach to fair use. But even within a fairly narrow industry definition, such as computer software, incentive effects and requirements for copyright protection can differ. As Yochai Benkler argues, expansionist intellectual property regimes tend to favor some producers and disfavor others, depending on their information production strategy.[232] Open source software and commercial software often compete side by side in the market place, but their production strategies are radically different. So in spite of being in the same industry, information producers may well differ in their reliance on direct appropriation of their information outputs, they will be differently affected by an expansion of intellectual property

[231] See, e.g. Fisher, *supra* note 145, at 1744.

[232] Yochai Benkler, *Intellectual Property and the Organization of Information Production*, 22 INT. REV. OF LAW AND ECON. 81 (2002).

rights. The more a producer relies on direct appropriation of its information outputs, the more likely it is to find that the increased costs of greater copyright scope are matched by increased revenues.[233] In contrast, information production strategies that rely on indirect appropriation and non-monetary gains are likely to be prejudiced by an increase in copyright scope.

The fourth consideration is that even if a court was presented with sufficient evidence to determine the optimal level of copyright scope for a particular market, it would then have to consider how changes in one market might distort other markets. For example, finding the optimum trade-off between increasing incentives and reducing the cost of expression for a particular genre of novels might distort the downstream market for screen-plays in the same genre, some of which are derived from novels and some of which are not. However well intended, tilting the scales of copyright in one market is likely to have unintended consequences and potential multiplier effects in other markets. These judgments need to be based on sound theoretical approaches and/or broad based empirical evidence, not merely a cost-benefit analysis of one narrow case or class of cases.

The fifth consideration is that an industry level cost-benefit analysis would significantly expand opportunities for rent seeking in copyright law. If judges explicitly craft rules to apply differently to particular industries, the ability of those industries to lobby Congress for particularized benefits will only increase. While there are numerous examples of special interest rent seeking in the current copyright law, this type of particularism is limited by the universalism of copyright. As such, industry based cost-benefit rules may well subvert the aims of their proponents.[234]

[233] *Id.*, at 83.

[234] Dan Burk and Mark Lemley raise a similar concern with respect to industry differentiation in patent law. Although Burk and Lemley have advocated tailoring patent protection to the needs of specific industries in

4. Overall assessment of the cost benefit approach to fair use

In its paradigm form, the cost benefit approach to fair use fails to account for the high costs and speculative benefits of asking judges to fine tune the scope of copyright. Various applications of the market failure approach have been rightly criticized for simply presuming the efficiency of private ordering without any serious empirical or theoretical inquiry.[235] The opposite criticism can be leveled at the cost-benefit approach to fair use. The implicit assumption of the cost benefit approach to fair use is that every litigated fair use case represents a failure of private ordering and that such failures will continue even after judicial resolution of like cases. The cost-benefit approach is also limited by its failure to recognize the significance of the significant costs associated with its (arguably futile) pursuit of more perfect allocative efficiency.

Is there an alternative? An industry based cost-benefit analysis of fair use incorrectly focuses on the status of the defendant, rather than the nature of her conduct. An alternative approach to fair use that may meet many of the objectives of the cost benefit approach is to concentrate on identifying situations in which fair use should be presumed. Such an approach is consistent with the current doctrinal framework of fair use, can be incorporated into the general market failure framework and lends itself to the application of economic analysis in the form of game theory and many other analytical tool-sets.

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light of industry based variation in economic evidence, patent doctrine, and legal theory, they concede that there are a number of risks inherent in such a technology-specific approach. In particular, they acknowledge because of "concerns about rent seeking and the inability of industry-specific statutes to respond to changing circumstances, … we should not jettison our nominally uniform patent system in favor of specific statutes that protect particular industries." Burk and Lemley, *supra* note 123, 1578-79. However, as Polk Wagner points out, these political economy concerns should not be confined to legislative particularism. R. Polk Wagner, *Exactly Backwards: Exceptionalism and the Federal Circuit*, 54 Case W. Res. 749, 755 (2004).

[235] See Cohen, *supra* note 8, at 465 (criticizing the assumptions of those who predict the irrelevance of fair use in cyberspace as unproven and unjustified in the case of creative and informational works.)

CONCLUSION

The traditional single variable analysis of the welfare effects of copyright protection is bedeviled by empirical uncertainty as to the optimum level of that protection. The traditional model is a useful tool for thinking about the efficiency of copyright as a whole, but as a launching pad for recommendations about individual copyright doctrines, it is more limited. Conclusions as to optimum copyright protection do not directly translate into doctrinal recommendations, because any given level of copyright protection can be engineered through an infinite number of combinations of copyright protection's constituent variables – copyright scope and copyright duration.

This article has suggested two extensions of the traditional model that address this limitation. The first extension is to simply set aside the issue of duration and focus on copyright scope. This is useful for analyzing specific copyright doctrines, and has very little distorting effect because of the extraordinary length of modern copyright terms. The second extension of the traditional model is to relax the assumption that there are no differences between the welfare effects of different combinations of doctrinal settings that result in the same level of copyright scope. This article formalized the notion of doctrinal efficiency as concept separate from, but ultimately related to, the ideal extent of copyright scope.

Building on both of these extensions to the traditional model, this article explored the relationship between copyright scope and welfare from a theoretical perspective to develop a framework for evaluating specific doctrinal recommendations in copyright law. This analysis leads to four conclusions, three of which in turn provide useful metrics or benchmarks for assessing doctrinal recommendations. The first (by no means novel) conclusion is that the ideal extent of copyright scope must be both more than nothing, and less than everything. The more tractable implications of the theoretical exploration of the relationship between

copyright scope and welfare are: (1) the efficiency of private ordering is the key determinant of the ideal level of copyright scope; (2) the complexity of the welfare-scope relationship is such that we are unlikely to be able to ascertain a generalizable optimal level of copyright scope – the relationship will clearly be subject to substantial variation, both within and between industries; (3) doctrinal recommendations which aim to optimize copyright scope in the abstract but do not account for the effect of a doctrinal change on transaction costs or uncertainty are necessarily incomplete.

This article bridges the gap between the traditional law and economics of copyright and specific doctrinal analysis by applying the above conclusions as metrics for assessing doctrinal proposals. The metrics do not definitively determine which doctrinal proposals are either efficient or normatively desirable, but they are useful in both filtering out some ill-conceived recommendations, and identifying areas for improvement in others. The application of these metrics to the predominant law and economics theories of fair use illustrates the approach and its potential. This metric driven analysis demonstrates the general robustness of the market failure approach to fair use and the relative frailty of the competing cost benefit approach. Importantly, the application of the metrics also indicates how the market failure approach can be improved.

This article's main substantive recommendation with respect to the fair use doctrine is that the market failure approach should be modified to incorporate a more discerning basis for allocating the burden of proof. One method of doing this is to apply some of the observations from game theory, behavioral economics and industrial organization to identify scenarios where the market is likely to fail, or scenarios in which the potential consequences of market failure justify a presumption that errs in favor of finding fair use. This approach is preferable to an industry tailored cost benefit approach because it asks courts to focus on the

nature of the defendant's conduct, not her broader status or affiliation. Courts should continue to develop the common law of fair use and attempt to identify situations in which the failure of the market for permissions should be presumed. Courts already appear to make this presumption with respect to parody, criticism, review, trivial quotation and the reverse engineering of computer software. This situational approach preserves the flexibility of the common law, is easily incorporated into a market failure framework, and lends itself to the application of sophisticated economic analysis in a form that courts can actually use.

The applicability of the metrics developed in this article is by no means limited to fair use. Another significant issue in copyright that remains unresolved is the extent of secondary liability for infringement and the correct application of the *Sony* standard with respect to substantial non-infringing use.[236] A number of commentators have suggested reformulating the law of secondary liability to hold technology providers liable for failure to take reasonable steps to prevent infringing uses of their products or services. [237] A cost benefit analysis suggests that liability should extend up to the point that the technology provider's cost of prevention equals the social benefit of reducing copyright infringement.[238] This is not the place to critique this notion in detail, suffice to say that the uncertainty such a rule would create in the boardrooms of Silicon Valley would be immense.[239]

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[236] MGM Studios Inc. v. Grokster, Ltd., 125 S. Ct. 2764, 2778 (U.S. 2005) The opinion of the Court was confined to the issue of secondary liability through active inducement, and "did not revisit *Sony* further … to add a more quantified description of the point of balance between protection and commerce when liability rests solely on distribution with knowledge that unlawful use will occur."

[237] See, Douglas Lichtman and William Landes, *Indirect Liability for Copyright Infringement: An Economic Perspective*, 16 HARV. J. LAW & TEC 395, 404-05 (2003); Jesse M. Feder, *Is Betamax Obsolete?: Sony Corp. of America v. Universal City Studios, Inc. in the Age of Napster,* 37 CREIGHTON L. REV. 859, 910-11 (2004). See also In re Aimster Copyright Litigation. 334 F.3d 643, 649 (7th Cir. 2003) ("When a supplier is offering a product or service that has noninfringing as well as infringing uses, some estimate of the respective magnitudes of these uses is necessary for a finding of contributory infringement.")

[238] *Id.*

[239] A point forcefully made by Justice Breyer in his concurring opinion in *Grokster*. MGM Studios Inc. v. Grokster, Ltd., 125 S. Ct. 2764, 2792-2793 (U.S. 2005) (Increasing the burden on defendants "would doubtless make life easier for copyrightholder plaintiffs. But it would simultaneously increase the legal uncertainty that surrounds the creation or development of a new technology capable of being put to infringing

The point of raising this example is not to debate its merits, but rather to show that the methodology developed in this article has broad application. By revising and extending the traditional model of the welfare effects of copyright to produce applicable metrics, this article translates abstract economic theory into concrete recommendations for individual copyright doctrines.

uses. Inventors and entrepreneurs (in the garage, the dorm room, the corporate lab, or the boardroom) would have to fear (and in many cases endure) costly and extensive trials when they create, produce, or distribute the sort of information technology that can be used for copyright infringement.")