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Reexamining Copyright's Incentives-Access Paradigm

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Reexamining Copyright's Incentives- Access Paradigm

*Glynn S. Lunney, Jr.**

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I. INTRODUCTION

For the past three centuries, defining the appropriate scope of copyright has entailed an examination of incentives and access.¹ Broadening the scope of copyright increases the incentive to produce works of authorship and results in a greater variety of such works. Broadening copyright's scope, however, also limits access to such works both generally, by increasing their price, and specifically, by limiting the material that others can use to create additional works. Given these competing considerations, defining copyright's proper scope has become a matter of balancing the benefits of broader protection, in the form of increased incentive to produce such works, against its costs, in the form of lost access to such works.²

Congress,³ courts,⁴ and commentators⁵ have purported to rely on this incentives-access balance in defining some of copyright's most

1. See *Feist Pubs. Inc. v. Rural Tele. Serv. Co.*, 499 U.S. 340, 349-50 (1991) ("The primary objective of copyright is not to reward the labors of authors, but '[t]o promote the Progress of Science and useful Arts.' Art. I, § 8, cl. 8. . . . To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work"); *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984) ("This limited grant [that is, copyright] is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired"). See also H.R. Rep. No. 60-2222, 60th Cong., 2d Sess. 7 (1909) ("In enacting a copyright law Congress must consider . . . two questions: First, how much will the legislation stimulate the producer and so benefit the public; and, second, how much will the monopoly granted be detrimental to the public?").

2. Perhaps the most famous expressions of this balance belong to two English Lords. In 1785, Lord Mansfield wrote:

[W]e must take care to guard against two extremes equally prejudicial; the one, that men of ability, who have employed their time for the service of the community, may not be deprived of their just merits, and the reward of their ingenuity and labour; the other, that the world may not be deprived of improvements, nor the progress of the arts be retarded.

Cary v. Longmen, 1 East 361 n.b, 102 Eng. Rep. 139 n.b (K.B. 1801) (quoting Lord Mansfield, C.J., in *Sayre v. Moore* (1785)). Nearly sixty years later, Lord Macaulay would repeat these sentiments in a legislative context:

It is good that authors should be remunerated; and the least exceptionable way of remunerating them is by a monopoly. Yet monopoly is evil. For the sake of the good we must submit to the evil; but the evil ought not last a day longer than is necessary for the purpose of securing the good.

Thomas Babington Macaulay, *Copyright*, in 1 *The Speeches of Macaulay* 235, 240-41 (1900) (speech given Feb. 5, 1841).

3. See, for example, H.R. Rep. No. 94-1476, 94th Cong., 2d Sess. 134 (Sept. 3, 1976) (discussing the incentives-access balance in determining copyright's appropriate term); H.R. Rep. No. 60-2222 at 7 (cited in note 1); *Report of the Register of Copyrights on the General Revision of the U.S. Copyright Law* 6 (1961).

4. See, for example, *Sony*, 464 U.S. at 429 ("This task [of defining the scope of the limited monopoly that should be granted to authors] involves a difficult balance between the interests of

basic parameters, including the prerequisites for copyright protection, the general scope of protection, and specific limitations on protection. Despite its enduring and widespread popularity, however, the incentives-access paradigm is fundamentally flawed. Whether evaluated in terms of its own framework of costs and benefits, or more importantly, in terms of the actual costs and benefits that copyright imposes, the paradigm fails to define the appropriate boundaries for copyright protection.

On its own terms, applying the paradigm's suggested balance for any given work leads to an internal paradox. As a general proposition, a work's desirability will indicate both the need to ensure the work's creation *and* the need to secure its widespread distribution. The more desirable a work is, the greater the need to ensure the creation of the work *and* the greater the need to secure its widespread dissemination. If the need to ensure a work's creation suggests a broad copyright, while the need to secure its widespread dissemination suggests a narrow copyright, then incentive and access will always oppose each other with exactly equal force. As a result, if the incentives-access balance were the sole criterion for determining the proper degree of copyright protection, it would provide an indeterminate answer as to how much protection copyright should provide.

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"); *Wildlife Express Corp. v. Carol Wright Sales, Inc.*, 18 F.3d 502, 507 (7th Cir. 1994) (balancing the authors' rights to their original expression with the need to allow others to build freely upon the ideas conveyed by a work); *Kern River Gas Transmission Co. v. Coastal Corp.*, 899 F.2d 1458, 1463 (5th Cir. 1990) ("In drawing this fundamental distinction [between protected expression and unprotected ideas], Congress balanced the competing concerns of providing incentives to authors to create and of fostering competition in such creativity"); *Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp.*, 562 F.2d 1157, 1163 (9th Cir. 1977); *Reyher v. Children's Television Workshop*, 533 F.2d 87, 90 (2d Cir. 1976).

5. Kenneth Arrow is generally credited with the modern formulation of the paradigm: "In a free enterprise economy, inventive activity is supported by using the invention to create property rights; precisely to the extent that it is successful, there is an underutilization of the information." Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *The Rate and Direction of Inventive Activity* 609, 617 (Princeton U., 1962). See Paul Goldstein, 1 *Copyright* § 1.1 (Little Brown, 2d ed. 1996); Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 *Yale L. J.* 1533, 1560-72 (1993) (providing a natural rights perspective); Jessica Litman, *The Public Domain*, 39 *Emory L. J.* 965, 966-67 (1990) (providing an author's rights perspective); William M. Landes and Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 *J. Legal Stud.* 325, 341-44 (1989) (providing an economic perspective); William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 *Harv. L. Rev.* 1659, 1700-04 (1988) (providing an economic perspective); Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 *Harv. L. Rev.* 281, 293-302, 313-21 (1970) (providing an economic perspective).

Courts have resolved this paradox by implicitly presuming that more incentives are desirable in the absence of some unusual need for access. Given this presumption, the paradigm no longer requires a balance so much as a search for those situations where an unusual need for access compels a limit to protection. The question becomes whether providing copyright protection would threaten a compelling need for access. Asking the question in this way makes access the controlling factor. In doing so, this presumption resolves the paradox otherwise inherent in balancing incentives and access, but it also shapes copyright in a way detrimental to society. More specifically, if we focus on the the need for access alone, that need becomes more compelling as access to a particular work, or a particular aspect of a work, becomes more necessary, either generally⁶ or for the creation of future works.⁷ The more necessary the work, the more compelling the case for access, and the more limited the protection copyright should provide.⁸ As a result, relying on access to dictate the limits of copyright protection leads inevitably to a copyright system that provides the most protection for those works that society least needs, and the least protection for those works society most needs.⁹ To the extent broader copyright protection corresponds with an increased incentive to produce particular works, relying on access to define the appropriate limits of copyright encourages the production of less essential works at the expense of more essential works.

More fundamentally, however, the central flaw of the incentives-access paradigm lies in its suggestion that the only cost broadening copyright entails is that we may potentially restrict access to existing or future works of authorship. Having identified the potential for lost access as the sole cost of broadening protection, the paradigm suggests that we should continue to broaden copyright, and thereby encourage the production of additional works, until further protection would threaten a compelling need for access. Yet, the potential for lost access is not the only cost broadening copyright entails. If we broaden copyright, we increase the economic return on any given authorship investment. We can thereby lure resources, in the form of labor and capital, away from other productive endeavors into the production of copyrighted works and lead the market to pro-

6. See Part III.A.2.

7. See Part III.A.1.

8. See Part IV.B.

9. See text accompanying notes 321-22.

duce additional works.¹⁰ But to create these additional works, we must strip the resources from other sectors of the economy.¹¹ As a result, broadening copyright imposes a second critical cost: the lost value society would have associated with the alternative investments to which these resources would otherwise have been devoted.¹² Yet, the incentives-access balance neither encompasses nor considers this opportunity cost.¹³ Its failure to consider this critical component of

10. Authors, like others, sometimes act for reasons other than economic ones. Emotional satisfaction, personal fulfillment, or petty anger may all lead an author to create a work, even in the absence of any expectation of economic return. These nonpecuniary motives for authorship do not undermine, however, this Article's analysis or conclusions. Assuming, as I do, that pecuniary desires are central to the motivations of authors, particularly the additional authors that broader copyright can attract, presents the case most favorable to extensive copyright protection. If we were to assume that authors, more than others, work to satisfy their nonpecuniary desires, the availability of such a nonpecuniary return on authorship suggests that we could reduce the pecuniary return on authorship, and hence the scope of copyright protection, proportionally, and yet still ensure the optimal production of copyrighted works.

11. See Joan Robinson, *The Economics of Imperfect Competition* 102-04 (MacMillan, 1933). As Professor Machlup has explained:

It is easy to conceive of the possibility that such allocation [of productive resources to research and development] is too meager. But can there ever be too much? Is not more research and development always better than less? Is it possible that too much is devoted to the inventive effort of the Nation? This depends on what it is that is curtailed when inventive activity is expanded. More of one thing must mean less of another, and the question is, what it is of which there will be less. . . . Whenever permanent economic policies—not just war or depression measures—are discussed, sound economists must start from the principle that no activity can be promoted without encroaching on some other activity. More of one service or product must mean less of another.

Fritz Machlup, *An Economic Review of the Patent System: Study No. 15*, prepared for the Subcommittee on Patents, Trademarks, and Copyrights of the Senate Committee on the Judiciary, 85th Cong., 2d Sess. 45-46 (1958).

12. While some of the more careful commentators have recognized the trade-off between investment in works of authorship and other products, none have suggested a solution to the issue. See Benjamin Kaplan, *An Unhurried View of Copyright* 75 (Columbia U., 1967) ("Magnify the headstart and you may conceivably run the risk of attracting too much of the nation's energy into the copyright-protected sectors of the economy"); Robert M. Hurt and Robert M. Schuchman, *The Economic Rationale of Copyright*, 56 *Am. Econ. Rev.* 421, 425, 430 (1966); Arnold Plant, *The Economic Aspects of Copyright in Books*, 1 *Economica* 167, 170 (1934). For expression of a similar concern in the patent area, see William F. Baxter, *Legal Restrictions on Exploitation of the Patent Monopoly: An Economic Analysis*, 76 *Yale L. J.* 267, 268-69 (1966) (recognizing a trade-off, but suggesting that an efficiency-based solution is "well beyond the reach of present techniques"); Machlup, *Economic Review* at 62-66 (cited in note 11). See also Richard Posner, *Antitrust Law: An Economic Perspective* 11 (U. Chicago, 1976) ("An opportunity to obtain a lucrative transfer payment in the form of monopoly profits will attract real resources into efforts by sellers to monopolize, and by consumers to prevent being charged monopoly prices").

13. If all markets were perfectly competitive, all costs and benefits were fully internalized, and resources were perfectly divisible, then the resources drawn into a new endeavor would have received a price in their previous uses equal to their marginal utility in such prior uses. See, for example, Robinson, *Imperfect Competition* at 317-18 (cited in note 11). As a result, any use of the resources that generated a price for the resources in excess of their price (or marginal cost) in the previous or alternative use would necessarily have to increase social welfare. Under these assumptions, one could assert that any use that is worth more than it costs to create

copyright's cost renders the incentives-access paradigm worthless as a guide to copyright's proper limits.

To suggest a more appropriate approach for determining the proper scope of copyright, this Article critically reexamines the economic justification for copyright and identifies allocative efficiency, rather than the incentives-access balance, as the appropriate guide. From an allocative-efficiency perspective, copyright provides the proper degree of protection when it ensures that individuals will produce works of authorship if, and only if, such production would represent the most highly valued use of their resources.¹⁴ In a world of finite resources, more works of authorship must mean less of something else. Unless the production of an additional work of authorship is inherently more valuable to society than any alternative use of the resources required to create the work, providing any given degree of copyright protection is desirable only if society will likely value¹⁵ the additional works more highly than the something else which it must give up.

would be a desirable use of the resources. See, for example, Fisher, 101 Harv. L. Rev. at 1700 (cited in note 5) (stating that works of authorship are underproduced if works are not created "that would be worth more to consumers than the costs of creating them"). See also Pamela Samuelson, et al., *A Manifesto Concerning the Legal Protection of Computer Programs*, 94 Colum. L. Rev. 2308, 2340 (1994) (arguing that market failure and resultant underproduction occurs when the threat of copying prevents individuals from investing in a product that is worth more than it costs). Markets are not, however, perfectly competitive, nor are costs and benefits fully internalized. See, for example, Robinson, *Imperfect Competition* at 51, 89. As a result, price, marginal cost, and marginal utility will not be equal for the resources in their prior use, and an analysis of the optimal level of production must account specifically for the opportunity cost associated with drawing additional resources into the production of works of authorship. See Baxter, 76 Yale L. J. at 268-69 (cited in note 12); Hurt and Schuchman, 56 Am. Econ. Rev. at 425, 430 (cited in note 12); Plant, 1 *Economica* at 170 (cited in note 12). See also R.G. Lipsey and Kelvin Lancaster, *The General Theory of Second Best*, 22 Rev. Econ. Stud. 11, 16-17 (1956).

14. As Professor Baxter has explained, "[t]his is the classic economic criterion for optimal allocation." Baxter, 76 Yale L. J. at 268 n.7 (cited in note 12).

15. This Article assumes that the social value of a new work or a new product is equal to the sum of the price individuals would be willing to pay to avoid doing without the work or product (their "reservation price"), and the price individuals would be willing to pay to avoid doing without a further work or product, which would not have been created or whose creation would have been delayed but-for the creation of the first work or product. However, three issues render application of this definition difficult. First, to the extent that we attribute to an underlying work the value of every subsequent product or work that would not have been created but-for the first work or product, we encounter two difficulties: (1) a risk of double counting; and (2) infinite value. The double-counting risk arises because this definition requires us to recognize the sum of the reservation prices for a particular product as part of the value of both the product itself and all earlier products without which this particular product would not have been created. To address this risk, economists typically draw the demand curve for a particular product assuming that the supply functions for other products remain constant. The demand curve thus represents, in one sense, the "value added" by a particular new product, as it represents the additional sum people would pay for this new product given the prices and

To promote such allocative efficiency, a property system generally should tend to ensure that the prices an individual will expect to receive for investing her resources in various endeavors provide a consistent reflection of the social value associated with the various endeavors. Her expected price should tend to increase as the social value of the endeavor increases, and to decrease as the social value of the endeavor decreases. To achieve such consonance between social value and price received, copyright must protect works of authorship to that extent necessary to ensure that the market prices creativity, labor, and other resources consistently, whether invested in a work of authorship or in a product that copyright leaves unprotected (a "non-work product"). Ensuring such consistent treatment will require copyright to satisfy two conditions. First, when an individual must decide between investing in one or another work of authorship, copyright should seek to provide protection that will lead the individual to expect a somewhat higher price for investing in the more valuable work. Second, when an individual must decide between investing in a work of authorship or a non-work product, copyright should seek to provide protection that will lead the individual to expect a higher price for investing in the work when the

characteristics of available and preexisting products. The infinite value problem arises because, without a foreseeable end to the time period in which a particular product is a but-for cause of later products, we have no way of closing off our valuation time period. Economists typically rely on present value and a foreseeable return period to address this issue, and I will do the same. Thus, all demand curves represent present value demand over the expected economic life of the new work or product. Second, in defining reservation price for a product, we must recognize that competition will reduce the price a person is willing to pay for a particular new product or work. Thus, I am only willing to pay five dollars a day for subsistence-level food, because if someone tries to charge me more, I will purchase the food from someone else. Yet, I clearly value a subsistence supply of food at much more than five dollars a day. As a result, reservation price refers not to the market price I need to pay, given the degree of competition present in a market, but what I would be willing to pay to avoid doing without a product altogether. Economists deal with this issue by separating individual demand curves from industry demand curves, where the industry demand curve reflects a consumer's reservation price for the product and the individual demand curves represent the price a consumer will pay to purchase the product from one of the producers within the industry, given the degree of competition present in the market. I use a similar approach, except I define each new work or new product as an industry, and I determine the demand curve for the industry based upon the present value of what a consumer would pay to avoid doing without the new work or product and competing works or products that would not have been created but-for the new work or product. Third, such a definition of value is accurate only to the extent that each work or product exhibits the same degree of positive and negative externality, and that consumer surplus is not considered a positive externality. Given these difficulties, I shall assume that the value of a new product or work equals the area under the demand curve for that product or work, bounded by the total quantity actually sold. See, for example, Breyer, 84 Harv. L. Rev. at 285-86 n.21 (cited in note 5). Where difficulties arise with this definition of value, I will address them.

work has greater social value, and a lower price for investing in the work when the work has less social value.

To satisfy the first condition, copyright must provide a consistent level of protection for the various works it protects. To satisfy the second condition, copyright must equalize the market's treatment of works and non-work products. Specifically, copyright should provide works with that degree of protection that will lead an individual to expect a price for investing her labor, creativity, and other resources in a work roughly equal to that she would expect for investing them in a non-work product, when the two goods are of roughly equal value to society. By seeking to ensure consistent treatment for comparable work and non-work product investments, copyright should, to the extent possible in a real world market, lead an individual to expect a higher price for devoting her resources to the higher-valued use, whether that be the creation of an additional work of authorship or an additional non-work product.

While ensuring such consonance between the marginal social value and the marginal cost for each additional work is not as elegant as the exact solution possible in a perfectly competitive market,¹⁶ such consonance should ensure, in a real world market, that individuals will devote their resources to the highest-valued use.¹⁷ As a practical matter, satisfying the first condition would require copyright to eliminate its practice of providing different levels of protection for works depending on whether a court labels the works fictional or factual, entertaining or useful. Satisfying the second would require copyright to narrow significantly its present scope of protection, particularly for entertaining works. Satisfying these two conditions would, therefore, require considerable change in the existing scope of copyright law. Such a choice is nevertheless preferable to retaining copyright's present scope, because such a choice would promote allocation of society's resources to their highest-valued use. Given its present scope, copyright protects more extensively an individual's

16. Under a perfectly competitive market, "[r]esources are . . . distributed so that [every] unit of resources will" have a marginal cost equal to its marginal utility. See, for example, Robinson, *Imperfect Competition* at 317 (cited in note 11). This Article proposes to ensure that the marginal resources that, taken together, are devoted to creating an additional work or product have a marginal cost in constant proportion to the marginal social value associated with the additional work or product. For the reasons why copyright is inconsistent with a perfectly competitive market, see note 360.

17. See Friedrich A. Hayek, *Individualism and Economic Order* 21-22 (U. Chicago, 1948); Ejan Mackaay, *Economic Incentives in Markets for Information and Innovation*, 13 Harv. J. L. & Pub. Pol. 867, 895 (1990).

creativity and labor when invested in an entertaining work than when invested in a useful work or a non-work product. By preferencing investments in entertaining works, copyright ensures individuals a higher price for their resources when invested in an entertaining work than they would receive for investing in a useful work or a non-work product, even when the useful work or the non-work product is of greater value to society. As a result, such protection will continue attracting additional resources into the creation of copyrighted entertaining works, even when those resources would otherwise have been more valuably used elsewhere in our economy. The inevitable result of such protection is that we will have too many entertaining works, at the expense of having too little of everything else.

In substantial part, the incentives-access paradigm has led copyright to its present state. Because it fails to account for the opportunity cost that broader copyright protection entails, the paradigm mistakenly suggests that copyright should provide: (1) disparate levels of protection for entertaining and useful works, and (2) substantial protection for labor and creativity when invested in entertaining works. If we are to avoid the flaws inherent in the incentives-access paradigm and find a more appropriate guide to determining copyright's proper scope, we must reject the paradigm as an appropriate means of determining copyright's proper scope and turn to a standard that properly accounts for copyright's true cost.

II. THE INCENTIVES-ACCESS PARADIGM INTRODUCED

While I assume that most readers are, at least implicitly, familiar with the incentives-access balance as applied to copyright issues, this Part briefly explains the paradigm to ensure a common analytical framework. Within the paradigm, the need for incentives turns on the ease with which a competitor can copy a work of authorship in the absence of copyright. Without copyright, a competitor¹⁸ could copy a work and thereby avoid most, if not all, of the initial investment an author¹⁹ would necessarily have incurred to create an original work. By avoiding the initial authorship

18. A competitor in this context may include someone who reproduces the work in question for her own use, or someone who reproduces the work and sells it to others.

19. To simplify our discussion, I will refer to the owner of the copyright in a work as the author, unless otherwise noted. Compare by analogy, Breyer, 84 Harv. L. Rev. at 292 (cited in note 5) (collapsing the interests of authors and publishers, while recognizing that interests may sometimes differ).

investment, the copier could profitably market his copies at a lower price than could the original author.²⁰ Competition from such copies would limit the price the original author could charge for her copies and would deprive her of a reasonable opportunity to recover her initial authorship investment.²¹ The specter of such copying competitors might lead many would-be authors to forego authorship altogether, resulting in the underproduction²² of such works. As the Stationers' Company explained in a 1586 petition to the Star Chamber:

And further if privileges [that is, copyright] be revoked no books at all should be printed, within [a] short time, for commonly the first printer is at charge for the Author's pains, and some other such like extraordinary cost, where an other that will print it after him, come[s] to the Copy gratis, and so may he sell better cheaper than the first printer, and then the first printer shall never utter [that is, sell] his books.²³

Thus, it is the ease with which others may copy works of authorship that justifies a legal prohibition on the unauthorized copying of such works, in order to prevent the underproduction of such works.²⁴

To address the risk of underproduction such copying would otherwise create,²⁵ copyright imposes two distinct controls on later

20. See *id.* at 282.

21. See *id.*

22. For some commentators who follow the incentives-access paradigm, "underproduction" occurs when the threat of copying prevents the creation of a work of authorship "that would be worth more to consumers than the costs of creating [it]." Fisher, 101 Harv. L. Rev. at 1700 (cited in note 5). As discussed, this definition relies on the accuracy of these underlying assumptions: perfect competition, perfect cost and benefit internalization, and infinitely divisible resources. See note 13. To the extent that these assumptions are not accurate, we cannot rely on the fact that an individual can receive a higher price for her resources in one use than in another to establish the greater value of the higher priced use. See text accompanying notes 370-408. Other commentators define underproduction as an "other than optimal" or "less than optimal" level of production. See, for example, Goldstein, 1 *Copyright* § 1.1 at 6-7 (cited in note 5); Samuelson, et al., 94 Colum. L. Rev. at 2314 n.14 (cited in note 13). While this definition is accurate, it is also useless unless we have defined or otherwise determined the optimal level of production. See George L. Priest, *What Economists Can Tell Lawyers About Intellectual Property: A Comment on Cheung*, 8 Res. L. & Econ. 19, 21 (1986); Stephen L. Carter, *Owning What Doesn't Exist*, 13 Harv. J. L. & Pub. Pol. 99, 102 n.13 (1990); Ejan Mackaay, *Legal Hybrids: Beyond Property and Monopoly*, 94 Colum. L. Rev. 2630, 2634 (1994).

23. Edward Arber, ed., 2 *A Transcript of the Registers of the Company of Stationers of London: 1554-1640 A.D.* at 805 (1875).

24. As others have recognized, some things that copyright protects are not relatively easy to copy. See, for example, Landes and Posner, 18 J. Legal Stud. at 329 (cited in note 5) (noting that works of fine art may not be easily copied). See also note 386.

25. See, for example, *International News Serv. v. Associated Press*, 248 U.S. 215, 239-41 (1918) ("Indeed, it is one of the most obvious results of defendant's theory that, by permitting indiscriminate publication by anybody and everybody for purposes of profit in competition with

authors. First, copyright directly limits the uses a later author can make of an earlier copyrighted work by prohibiting excessive copying from a copyrighted work.²⁶ By limiting the freedom of others to copy from a copyrighted work, copyright requires later authors either to create more of their own work independently or to obtain the earlier author's consent before they copy. Undertaking either alternative is likely to increase the production costs for later works, either by requiring the later author to dedicate additional time and skill in order to create her own work or by requiring the later author to pay a licensing fee to the earlier author in order to copy. By increasing the production costs for later authors, copyright increases the price a later author will have to charge in order to recoup her own initial investment, and thereby limits the ability of a later author to undersell profitably an earlier author.²⁷ Second, because copyright permits a plaintiff to establish impermissible copying circumstantially,²⁸ copyright requires later authors to avoid undue similarity to an earlier copyrighted work in order to avoid the risk and expense of an infringement action. Copyright, thereby, indirectly²⁹ limits the production of a substantially similar later work.³⁰ By requiring later works to differ from earlier copyrighted works, copyright limits the degree to which a later author can produce a perfect substitute for an earlier copyrighted work.³¹ It can thereby insulate an author's work from effective price competition, provide the author with a degree of mar-

the news-gatherer, it would render publication profitless, or so little profitable as in effect to cut off the service by rendering the cost prohibitive in comparison with the return").

26. See text accompanying notes 56-78.

27. See, for example, Landes and Posner, 18 *J. Legal Stud.* 338-39 (cited in note 5); Robert P. Merges, *Of Property Rules, Coase, and Intellectual Property*, 94 *Colum. L. Rev.* 2655, 2657 (1994).

28. See, for example, *Baxter v. MCA, Inc.*, 812 F.2d 421, 423 (9th Cir. 1987); *Arnstein v. Porter*, 154 F.2d 464, 468 (2d Cir. 1946).

29. While the independent creation defense would theoretically protect a later author who produced an identical work independently, the use of circumstantial evidence to establish actual copying and the possibility of unconscious copying substantially limit, as a practical matter, the protection the defense affords. See text accompanying notes 108-19.

30. See Part III.B.1.

31. See, for example, Mackaay, 13 *Harv. J. L. & Pub. Pol.* at 908 (cited in note 17) ("But perhaps the notion of competition should be drawn out further: even with government restrictions, competition is always around the corner, though the corner is surely farther away than it would be otherwise"). In economic terms, such protection provides the author a degree of market power. The degree of market power will depend on the extent to which consumers consider other works adequate substitutes. See Fisher, 101 *Harv. L. Rev.* at 1702-03 (cited in note 5); Mackaay, 13 *Harv. J. L. & Pub. Pol.* at 889.

ket power with respect to copies of her work, and increase the price the author can profitably charge for access to her work.³²

As a general matter, the more extensive the protection that copyright provides, the fewer elements copyright will permit a later author to copy from an earlier copyrighted work, and the greater overall dissimilarity copyright will require between an earlier and later work in order to avoid an undue risk of an infringement finding. Copyright's scope thus determines the extent of these two controls. As copyright's scope broadens, copyright limits more and more the ability of later authors to draw on earlier copyrighted works. It thereby makes it more and more expensive for later authors to produce competing works, increasing the price later authors will need to charge for their competing works in order to recoup their investment. As copyright's scope broadens, it also limits more and more the ability of later authors to produce a perfect substitute for an earlier copyrighted work, providing the original author with an increasing degree of market power for any given copyrighted work. Through these two effects, more extensive copyright protection can increase the economic return an author should expect to receive for the publication of any given work,³³ and provide an increased incentive to produce works of authorship.

At the same time, however, more extensive copyright protection also limits access to the resulting work in two senses. First, by limiting the ability of future authors to reuse certain elements of the copyrighted work, broadening copyright's protection may impede access to elements needed to produce future works. Second, by increasing the market power associated with a copyrighted work, broadening copyright's protection may impede access to the work itself.

Broadening copyright protection may impede access to elements necessary to future works, thereby limiting the production of such works, in three instances. First, even without copying, later authors will inevitably reuse some of the same elements that have previously appeared in copyrighted works.³⁴ As copyright sets more

32. See Edward Chamberlin, *The Theory of Monopolistic Competition: A Re-orientation of the Theory of Value* 58-60 (Harvard U., 8th ed. 1962); Fisher, 101 Harv. L. Rev. at 1701-03 (cited in note 5).

33. Copyright does not, of course, guarantee a profit on any given work of authorship. It merely increases the chance that any given work will be profitable.

34. See, for example, *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930); *Computer Associates Intl., Inc. v. Altai, Inc.*, 982 F.2d 693, 709 (2d Cir. 1992); *Hoehling v.*

and more of a work apart as the earlier author's exclusive property, it heightens the risk that a jury may mistake the coincidental reappearance of one of these elements for copying.³⁵ To minimize the chance of an infringement finding, later authors would have to search prior works for similarities and, when found, either ensure that their works avoid those similarities, if possible, or obtain a license to use the similar material.³⁶ Either the increasing search costs alone, or the search costs together with the increasing cost of avoiding or licensing similarities when they are found, would, in some instances, make it "virtually impossible" for a future author to exercise freely her own creativity.³⁷

Second, extensive protection may stifle certain types of creative endeavors altogether. Some creative works, such as parody, inevitably build upon preexisting works.³⁸ Yet, an author will seldom authorize others to make fun of, or criticize, her work.³⁹ As a result, requiring a later would-be author to obtain a license before undertaking parody or criticism might prevent the production of such works altogether.⁴⁰

Third, by requiring permission before a later author can copy certain elements from a copyrighted work, copyright may lead to market failure. In some cases, even though the later author would be willing to pay a price for the license that the copyright holder would be willing to accept, the transaction costs of negotiating and obtaining a license would exceed the potential gains from the license.⁴¹ In such

Universal City Studios, Inc., 618 F.2d 972, 979 (2d Cir. 1980). See also Louise Harmon, Law, Art, and the Killing Jar, 79 Iowa L. Rev. 367, 403-06 (1994); Litman, 39 Emory L. J. at 966-67 (cited in note 5); Martha Woodmansee, On the Author Effect: Recovering Collectivity, 10 Cardozo Arts & Enter. L. J. 279 (1992).

35. See text accompanying notes 107-19.

36. See Landes and Posner, 18 J. Legal Stud. at 332-33 (cited in note 5); Breyer, 84 Harv. L. Rev. at 316-18 (cited in note 5). Depending on whether a particular author is risk-averse, risk-neutral, or risk-desiring, different authors will balance these strategies differently, each attempting to develop her own optimal balance of risk, uncertainty, search, avoidance, and licensing costs. Obviously, if a later author believes that truth will inevitably prevail at trial, and that the actual fact of independent creation alone will therefore protect the author from a liability finding, then the later author will face the cost of a mistaken infringement finding entirely in terms of risk and uncertainty.

37. See *Data East USA, Inc. v. Epyx, Inc.*, 862 F.2d 204, 209 (9th Cir. 1988).

38. See *Campbell v. Acuff-Rose Music, Inc.*, 114 S. Ct. 1164, 1176, 127 L. Ed. 2d 500 (1994). See also Lynne A. Greenberg, *The Art of Appropriation: Puppies, Piracy, and Post-Modernism*, 11 Cardozo Arts & Enter. L. J. 1, 24-33 (1992).

39. See *Campbell*, 114 S. Ct. at 1178.

40. See *id.*

41. See, for example, 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, 1618, 1628-30 (1982). See also Paul Goldstein, *Copyright*, 55 L. & Contemp. Probs. 79, 84 (Spring 1992); Merges, 94 Colum. L. Rev. at 2657, 2661-62, 2668-73 (cited in note 27).

a case, the transaction costs would render the later author unable to afford a license, and the transaction would not occur. Such market failure may limit the ability of later authors to reuse elements found in earlier works, thereby limiting the production of future works.

In addition to potentially limiting the production of future works, broadening copyright protection may also limit access to existing copyrighted works. Specifically, by ensuring that a copyrighted work remains unique, broad copyright protection may insulate an author from effective price competition and provide the author a degree of market power.⁴² This market power will enable the author to charge a higher price for access to her work, and, as with any form of monopoly,⁴³ will generate two economic consequences.⁴⁴ First, this market power will force those consumers who remain willing to purchase the work at its higher, more monopolistic price, to pay more for the work than they would have had to pay in a more competitive market.⁴⁵ For these consumers, broadening copyright and increasing an author's market power transfers monies that would otherwise have remained in their collective pocket as consumer surplus to the author in the form of a monopoly profit or rent.⁴⁶ Second, this market power will force those consumers who would have paid a more competitive price for the work, but who are unwilling or unable to pay the higher, more monopolistic price, to make do with a less adequate substitute or do without.⁴⁷ For these consumers, broadening copyright imposes a "deadweight loss," measured by the combined loss in consumer and producer surplus associated with the sales lost as a result of the

42. How much market power will depend upon the extent to which copyright permits later authors to duplicate the earlier copyrighted work's appeal. See Part III.A.2.

43. Some may object to the use of the word "monopoly" in such close association with copyright. See, for example, Donald S. Chisum and Michael A. Jacobs, *Understanding Intellectual Property Law* § 1C (Matthew Bender, 1992) ("Giving exclusive rights to an author or inventor is no more a monopoly or anticompetitive than other species of real or personal property"). I am not saying, however, that the copyright is a monopoly, merely that the presence of the copyright on a work may lead to a market for the work that has a downward sloping demand curve, and that the work is therefore sold in a market that is monopolistic in the nonpejorative economic sense. See, for example, Chamberlin, *Monopolistic Competition* at 193-94 (cited in note 32).

44. See, for example, Fisher, 101 Harv. L. Rev. at 1701-02 (cited in note 5).

45. *Id.* This is true unless the failure to give the author a greater degree of market power prevents the creation of the work in the first place.

46. *Id.*

47. See, for example, Robert Bork, *The Antitrust Paradox* 92-101 (Free Press, 1978); Walter Bowman, Jr., *Patent and Antitrust Law: A Legal and Economic Appraisal* 1-8 (U. Chicago, 1973); Posner, *Antitrust Law* at 8-11 (cited in note 12); Fisher, 101 Harv. L. Rev. at 1702 (cited in note 5).

higher, more monopolistic price.⁴⁸ Because the first consequence results only in a transfer of wealth from consumers to authors, commentators generally consider only the second consequence, the deadweight loss, when measuring the societal costs associated with the market power a copyright can create.⁴⁹

Given that broadening copyright may limit access to elements necessary to produce future works or to existing copyrighted works, the incentives-access paradigm suggests that we can determine copyright's proper scope by balancing the need for additional incentives against the need for access. As copyright protection broadens, the incentive to produce any given work, measured by the expected return on the work, increases, but both the cost of creating new works and the deadweight loss associated with existing works also increase.⁵⁰ At some point, given a decreasing marginal return on further incentive and an increasing marginal cost associated with further lost access, further expanding copyright's protection will increase the cost of reusing an element to a level that "unduly"⁵¹ discourages the creation of future works,⁵² or it will raise the price of access to an existing work to a level that unduly limits the work's dissemination.⁵³ At that point, the need for access would outweigh the need for incentives, and the incentives-access paradigm would demand a limit to copyright's protection.

To explore the incentives-access paradigm more fully, and to evaluate its influence on the shape of present copyright law, the following Part explores some of the key components of copyright.

48. See, for example, Fisher, 101 Harv. L. Rev. at 1702 (cited in note 5). Figure 1, see text accompanying note 364, graphically depicts the deadweight loss monopoly causes. In the figure, the triangle *a-y-z* represents the deadweight loss associated with a lead-time monopoly.

49. See, for example, Fisher, 101 Harv. L. Rev. at 1702 (cited in note 5). Compare Bork, *Antitrust Paradox* 110-15 (cited in note 47) (arguing that focusing on deadweight loss alone adequately defines the social cost of monopoly), with Posner, *Antitrust Law* at 11 (cited in note 12) (arguing that wealth transfer must be considered in determining the social cost of monopoly because the availability of transfer payments could lead to resources being wasted in rent seeking).

50. See Landes and Posner, 18 J. Legal Stud. at 332-33 (cited in note 5) (explaining that the cost of creating new works increases as copyright increases its scope); Merges, 94 Colum. L. Rev. at 2658-59 (cited in note 27).

51. Given the nature of the balance, the cost of reusing an element becomes "undue" when the cost of protecting an element begins to exceed the benefits from such protection.

52. See Landes and Posner, 18 J. Legal Stud. at 333 (cited in note 5); Gordon, 82 Colum. L. Rev. at 1618, 1628-30 (cited in note 41).

53. See Fisher, 101 Harv. L. Rev. at 1703-04 (cited in note 5).

III. THE PARADIGM EXPLORED: THE ELEMENTS OF COPYRIGHT

Subject to sections 107 through 120 of the Copyright Act,⁵⁴ a copyright owner will succeed in preventing another from making a given use of her work if she can demonstrate (1) ownership of a valid copyright,⁵⁵ and (2) copying by the alleged infringer.⁵⁶ As a practical matter, satisfying these two elements will require the plaintiff to show, first, that copyright protects her work⁵⁷ and, second, that copyright prohibits the defendant's actions.

54. See 17 U.S.C. § 106 (1994 ed.).

55. To establish ownership of a valid copyright, a plaintiff must establish that her work is an (a) original (b) work of authorship that has been (c) fixed in a tangible medium of expression. See *Feist*, 499 U.S. at 361; *Wildlife Express*, 18 F.3d at 507. See also 17 U.S.C. § 102(a) (1994 ed.); H.R. Rep. No. 94-1476, 94th Cong., 2d Sess. 51-52 (1976). Historically, a plaintiff also had to demonstrate that she had satisfied the statutory formalities, a fourth prerequisite for protection. See *Wheaton v. Peters*, 33 U.S. (8 Peters) 591, 662-68 (1834). The Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, 102 Stat. 2853, however, largely eliminated statutory formalities as a prerequisite for protection for those works first distributed to the public after March 1, 1989. See H.R. Rep. No. 100-609, 100th Cong., 2d Sess. 45 (1988). See also 17 U.S.C. §§ 401(a), 402(a), 408(a) (1994 ed.) (using the word "may" to reflect that notice and registration are permissive). To demonstrate ownership of a valid copyright, a plaintiff must also demonstrate that she owns the copyright in the work and that the alleged acts of infringement occurred within the statutory term of the copyright. See, for example, *Russell v. Price*, 612 F.2d 1123, 1126-29 (9th Cir. 1979).

56. See *Feist*, 499 U.S. at 361. The *Feist* Court required the plaintiff to demonstrate "copying of constituent elements of the work that are original." *Id.* By tacking on the qualifier that the copied element be "original," the *Feist* Court may have been suggesting that the copying of any original element would establish infringement. This is not the law. An alleged infringer may copy an original element of the copyrighted work, yet still not infringe if the original element copied is an unprotected idea. See, for example, *Baker v. Selden*, 101 U.S. (11 Otto) 99, 101-04 (1879); *Nichols*, 45 F.2d at 122 ("Even so, granting that the plaintiff's play was wholly original, and assuming that novelty is not essential to a copyright, there is no monopoly in such a background. Though the plaintiff discovered the vein, she could not keep it to herself; so defined, the theme was too generalized an abstraction from what she wrote. It was only a part of her 'ideas'"). Perhaps the *Feist* Court was implicitly suggesting that ideas, like facts, are not original to the author. See *Feist*, 499 U.S. at 349-50 (comparing unprotected facts to unprotected ideas). See also *Harper & Row Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 547 (1985) ("The copyright is limited to those aspects of a work—termed 'expression'—that display the stamp of the author's originality"). Most likely, however, the Court chose to focus on the requirement that the element taken be original because that was the issue before it.

57. To establish ownership of a valid copyright, the late Professor Nimmer has suggested that a plaintiff must demonstrate the "copyrightability" of a work, see Melville B. Nimmer and David Nimmer, 3 *Nimmer on Copyright* § 13.01[A] (Matthew Bender, 1993), and some courts have adopted his terminology, see, for example, *Apple Barrel Productions, Inc. v. Beard*, 730 F.2d 384, 387 (5th Cir. 1984). The word copyrightability is unfortunately ambiguous as courts have used it to refer to four different copyright inquiries. First, some courts have used it generally to refer to the question of whether a particular work satisfies all the prerequisites for copyright protection. See *M. Kramer Mfg. Co. v. Andrews*, 783 F.2d 421, 432-33 (4th Cir. 1986); *Roth Greeting Cards v. United Card Co.*, 429 F.2d 1106, 1109 (9th Cir. 1970) (explaining, first, that "to be copyrightable, the work must be original" and concluding that "[the plaintiff's works] are, in our opinion, both original and copyrightable"). Second, some courts have used it to refer

The incentives-access paradigm has played a crucial role in shaping both of these elements.⁵⁸ In order to limit the scope of our discussion, however, the following Sections will focus on three specific issues: (1) the idea-expression dichotomy, (2) the similarity required to establish infringement, and (3) the fair use doctrine. All three of these issues arise in the course of determining whether copyright prohibits the defendant's actions, an issue usually resolved by asking whether the plaintiff can demonstrate "copying" by the defendant.

To demonstrate such copying, copyright requires a plaintiff to establish two elements. First, a plaintiff must establish that the defendant actually copied from her work.⁵⁹ Independent creation of even

to the question of whether a work is original. See *John Muller & Co. v. New York Arrows Soccer Team*, 802 F.2d 989, 990 (8th Cir. 1986); *Magic Marketing v. Mailing Services of Pittsburgh*, 634 F. Supp. 769, 771-72 (W.D. Pa. 1986). Third, some courts have used it to refer to the question of whether a particular work is a work of authorship within the meaning of section 102(a). See *Carol Barnhart, Inc. v. Economy Cover Corp.*, 773 F.2d 411, 414-16, 418 (2d Cir. 1985). Fourth, some courts have used it to refer to whether a particular aspect of a work is excluded from protection under section 102(b), an inquiry that should properly be undertaken in determining whether the defendant has "copied" the plaintiff's work. See, for example, *Feist*, 499 U.S. at 361 (noting that the plaintiff owned a valid copyright on its telephone directory, but holding that the facts contained in the directory were not copyrightable in determining that the defendant's taking of those facts did not constitute "copying"); *Baker*, 101 U.S. (11 Otto) at 101-02 (noting that the plaintiff owned a valid copyright in a book about an accounting method, but holding that the accounting method was not "copyrightable" in determining that the defendant's taking of that method did not constitute "copying"). See also *Atari Games Corp. v. Oman*, 888 F.2d 878, 886 (D.C. Cir. 1989) (holding that the questions of whether a creation satisfies the prerequisites for protection and, if so, what elements of the work copyright protects, should be kept distinct). Some courts have used the ambiguities inherent in the word "copyrightability" to exclude protection for a work, without making clear which of the three prerequisites for protection the work failed to satisfy. See *Bibbero Systems, Inc. v. Colwell Systems, Inc.*, 893 F.2d 1104, 1108 (9th Cir. 1990) (finding an insurance claim form was not "copyrightable" because it was a blank form, without identifying which prerequisite the form failed to satisfy); *John J. Harland Co. v. Clarke Checks, Inc.*, 711 F.2d 966, 972 (11th Cir. 1983) (finding that a check stub was not "copyrightable" because it was a blank form, without identifying which prerequisite the stub failed to satisfy). Other courts have used the ambiguities inherent in the word to transport legal rulings from one inquiry to another, without ensuring that the same legal standard should apply. See *Magic Marketing*, 634 F. Supp. at 771-72 (supporting its decision finding summary judgment appropriate on the question of originality by citing three cases dealing with useful article exclusion, and describing the common issue as one of copyrightability). Because of these inherent ambiguities, this Article will avoid the terms "copyrightability" and "copyrightable."

58. Courts have used the copying element to impose access-derived limits even in cases that deal with a seeming prerequisite for protection, such as originality. See *Feist*, 499 U.S. at 379-81 (holding that while the plaintiff established ownership of a valid copyright, the plaintiff failed to establish "copying" because the factual material taken by the defendant was not original). See also Howard B. Abrams, *Originality and Creativity in Copyright Law*, 55 L. & Contemp. Probs. 3, 4-5 (Spring 1992) (using the incentives-access paradigm to evaluate the originality standard).

59. See *Arnstein v. Edward B. Marks Music Corp.*, 82 F.2d 275, 275 (2d Cir. 1936) (overruling *Hein v. Harris*, 175 F. 875, 876 (S.D.N.Y. 1910)) (holding that the plaintiff must demonstrate that the defendant took the material from the plaintiff's copyrighted work, and establishing that the independent creation of an identical work is not actionable). See also *Selle v. Gibb*, 741 F.2d 896, 901 (7th Cir. 1984) (holding that the plaintiff must demonstrate that the

an identical work is not actionable,⁶⁰ at least not in theory.⁶¹ Not every instance of actual copying will establish infringement, however.⁶² Instead, to be actionable, the plaintiff must establish, second, that the defendant's actual copying has gone so far as to constitute an "infringing" appropriation.⁶³

The test to determine whether any particular instance of actual copying amounts to an infringing appropriation has varied substantially over the last two hundred years. Until the early part of the twentieth century, actual copying would constitute an infringing appropriation only if it amounted to an unfair use of the plaintiff's work in that "so much is taken that the value of the original is sensibly diminished, or the labors of the original author are substantially to an injurious extent appropriated by another."⁶⁴ As components of this inquiry, a court would examine whether the alleged infringer had appropriated (a) substantial⁶⁵ (b) protected

defendant took something from the plaintiff's work and concluding that the independent creation of an identical work is not an infringement); *S.S. White Dental Co. v. Sibley*, 38 F. 751, 752-53 (E.D. Pa. 1889) (same).

60. See *Fred Fisher, Inc. v. Dillingham*, 298 F. 145, 147 (S.D.N.Y. 1924) (holding that independent creation using the same public domain sources to produce an identical work is not an actionable infringement); *Gray v. Russell*, 10 F. Cases 1035, 1038 (D. Mass. 1839) (same).

61. See text accompanying notes 102-19.

62. See, for example, *Arnstein*, 154 F.2d at 472 ("Assuming that adequate proof is made of [actual] copying, that is not enough; for there can be 'permissible copying,' copying which is not illicit"). But see *M. Kramer Mfg. Co.*, 783 F.2d at 445 ("If there was clear proof of actual copying by the defendants, that is the end of the case").

63. Various phrases have been used to describe the sort of actual copying that copyright will prohibit. The *Arnstein* court used the phrase "improper appropriation" to capture this element of the infringement inquiry. 154 F.2d at 468. The late Professor Nimmer used the phrase "actionable appropriation." Nimmer and Nimmer, 3 *Nimmer on Copyright* § 13.01[B] at 13-9 (cited in note 57). This Article will use the phrase "infringing appropriation" to avoid confusion with the specific inquiries suggested by these tests.

64. *Folsom v. Marsh*, 9 F. Cases 342, 348 (D. Mass. 1841). See, for example, *White v. Bender*, 185 F. 921, 926 (N.D.N.Y. 1911); *Simms v. Stanton*, 75 F. 6, 9-10 (N.D. Cal. 1896); *Lawrence v. Dana*, 15 F. Cases 26, 60-61 (D. Mass. 1869); *Drury v. Ewing*, 7 F. Cases 1113, 1116 (S.D. Ohio 1862); *Greene v. Bishop*, 10 F. Cases 1128, 1134 (D. Mass. 1858); *Emerson v. Davies*, 8 F. Cases 615, 625 (D. Mass. 1845).

65. *Dun v. Lumbermen's Credit Assn.*, 209 U.S. 20, 23 (1908) (despite copying by the defendant of the plaintiff's copyrighted merchant directory, the Court refused to enjoin production of the defendant's because the copied entries represented only a very small fraction of the defendant's directory). See *Dymow v. Bolton*, 11 F.2d 690, 692 (2d Cir. 1926) ("[T]he inquiry actually made was always to ascertain what had been appropriated, if anything, and then decide whether the appropriation was (1) of copyrightable matter, and (2) was substantial"). See also *MacDonald v. Du Maurier*, 144 F.2d 696, 699-700 (2d Cir. 1944) ("Copying, however, does not constitute plagiarism unless a substantial and material part of matter protected by the copyright is lifted").

material⁶⁶ (c) to create a recognizable reproduction of the original work.⁶⁷ If a plaintiff failed to establish any one of these components, then the defendant's use would not constitute an infringing appropriation.

When Congress enacted the 1976 Copyright Act, it reorganized some aspects of this inquiry, crafting, for example, a specific statutory section that excluded protection for "ideas"⁶⁸ and another that permitted "fair use" of a copyrighted work.⁶⁹ While the need for such separate statutory sections was unclear,⁷⁰ Congress apparently felt that codifying these aspects of copyright law would somehow clarify these difficult issues.⁷¹ Unfortunately, and despite Congress's protestations to the contrary,⁷² some courts have read this reorganization as changing the scope of copyright protection, particularly with respect to the doctrine of fair use. These courts have read the reorganization as

66. *Perris v. Hexamer*, 99 U.S. (9 Otto) 674, 676 (1879); *Nichols*, 45 F.2d at 122; *Dymow*, 11 F.2d at 692; *London v. Biograph Co.*, 231 F. 696, 698-99 (2d Cir. 1916); *Daly v. Webster*, 56 F. 483, 487 (2d Cir. 1892).

67. *Perris*, 99 U.S. (9 Otto) at 675-76 (finding that the defendant's map of Philadelphia was not an infringement of the plaintiff's map of New York City because "[the two maps] do not convey the same information"); *Kustoff v. Chaplin*, 120 F.2d 551, 560 (9th Cir. 1941) (finding that the similarities were not such as would lead an "ordinary observer to believe that the film has picturized appellant's book" and therefore holding that there was no infringement); *Harold Lloyd Corp. v. Witwer*, 65 F.2d 1, 27-28 (9th Cir. 1933) (finding no infringement because the court found "it fairly clear that, given an interval of two or three weeks between a casual reading of the story and a similar uncritical view of [the allegedly infringing work], it would not occur to such a spectator, in the absence of suggestion to that effect, that he was seeing in moving picture form the [copyrighted] story"); *Dymow*, 11 F.2d at 692 (concluding that the ordinary observer would not recognize the allegedly infringing work as being taken from the original and therefore finding no infringement). See also *Gray*, 10 F. Cases at 1038 (finding that one factor to consider in determining whether a use is unfair is whether the allegedly infringing work will supersede the demand for the original); *Folsom*, 9 F. Cases at 348 (same). See also text accompanying notes 201-213

68. 17 U.S.C. § 102(b) (1994 ed.).

69. *Id.* § 107.

70. Historically, courts had seen these limitations as implicit in the meaning of the word "copy." See *Perris*, 99 U.S. (9 Otto) at 675-76 (stating that taking the form of presenting information from an earlier map is not an infringing use because it does not result in a copy of the earlier map); *Stowe v. Thomas*, 23 F. Cases 201, 206 (E.D. Pa. 1853) (finding that a translation of an original work is not an infringing use because it does not result in a copy of the original within the meaning of the statute). Given that Congress, in the 1976 Act, defined the author's exclusive rights in terms of reproducing copies of the work, 17 U.S.C. § 102(a)(1), the courts could have used a similar approach and retained these limitations as implicit in the statutory language.

71. See H.R. Rep. No. 94-1476 at 57 (cited in note 3) ("[The purpose of § 102(b)] is to restate, in the context of the new single Federal system of copyright, that the basic dichotomy between expression and idea remains unchanged"); *id.* at 65-66 (stating that § 107 is intended to codify without modification the judicial fair use doctrine).

72. See *id.* at 57 ("Section 102(b) in no way enlarges or contracts the scope of copyright protection under the present law"); *id.* at 66 ("Section 107 is intended to restate the present judicial doctrine of fair use, not to change, narrow, or enlarge it in any way").

shifting the burden of proof with respect to the fair use issue⁷³ and as limiting the doctrine's applicability to exceptional cases.⁷⁴ As a result, demonstrating an infringing appropriation requires a slightly different approach today. First, the plaintiff must establish that the alleged infringer has appropriated (a) protected material⁷⁵ from the original (b) in order to produce a too-similar work.⁷⁶ Second, once the

73. Compare *Campbell*, 114 S. Ct. at 1177 (placing the burden of establishing fair use on the defendant), with *Sony*, 464 U.S. at 451 ("In this case, respondents failed to carry their burden with respect to home time-shifting" (emphasis added)); *Harper & Row*, 471 U.S. at 567 (placing the burden on the plaintiff to demonstrate that the use was not fair).

74. See *Campbell*, 114 S. Ct. at 1171 (focusing on parody as a transformative use); *Sony*, 464 U.S. at 455 n.40 (recognizing the distinction between "productive" and "unproductive" uses as helpful in calibrating the fair use balance).

75. See, for example, *Feist*, 499 U.S. at 363-64 (holding that taking factual information from an earlier work is not an infringing appropriation because facts are not a protected element); *Kouf v. Walt Disney Pictures & Television*, 16 F.3d 1042, 1046 (9th Cir. 1994) (finding that taking a story about kids facing life dangers as a result of shrinking was not an infringing appropriation because the story was unprotected at that level of abstraction); *Bellsouth Advertising & Publishing Corp. v. Donnelley Info. Publishing, Inc.*, 999 F.2d 1436, 1446 (11th Cir. 1993) (finding that taking the name, address, telephone number, business type, and unit of advertisement purchased for a listing was not an infringing appropriation because those elements were unprotected); *Laureyssens v. Idea Group, Inc.*, 964 F.2d 131, 141-42 (2d Cir. 1992) (finding that taking the concept of a flat-to-cube puzzle from the plaintiff was not an infringing appropriation because the elements were not protected at that level of abstraction); *Berkic v. Crichton*, 761 F.2d 1289, 1293 (9th Cir. 1985) (finding that taking a story about murders committed to obtain organs for transplants was not an infringing appropriation because the story was not protected at that level of abstraction); *Eden Toys, Inc. v. Marshall Field & Co.*, 675 F.2d 498, 500 (2d Cir. 1982) (finding that taking a toy snowman concept was not an infringing appropriation because the toy was not protected at that level of abstraction); *Franklin Mint Corp. v. National Wildlife Art Exchange, Inc.*, 575 F.2d 62, 65 (3d Cir. 1978) (finding that taking a painting's concept of two cardinals on an apple tree in bloom was not an infringing appropriation because the painting was not protected at that level of abstraction); *Reyher*, 533 F.2d at 92 (finding that taking a story of a lost child who describes his mother as the "most beautiful woman in the world" was not an infringing appropriation because the story was not protected at that level of abstraction).

76. See, for example, *Moore v. Columbia Pictures Industries, Inc.*, 972 F.2d 939, 946 (8th Cir. 1992) (holding that an allegedly infringing song was too different as a whole from the original to constitute an infringing appropriation); *Pasillas v. McDonald's Corp.*, 927 F.2d 440, 443 (9th Cir. 1991) (holding that an allegedly infringing Man in the Moon mask was too different in overall appearance from the original to constitute an infringing appropriation); *Litchfield v. Spielberg*, 736 F.2d 1352, 1357 (9th Cir. 1984) (holding that an allegedly infringing motion picture was too different from the original in "total concept and feel" to constitute an infringing appropriation); *Twentieth Century-Fox Film Corp. v. MCA, Inc.*, 715 F.2d 1327, 1329 (9th Cir. 1983) (holding that an allegedly infringing television series was too different from the original to constitute an infringing appropriation); *Warner Bros. Inc. v. American Broadcasting Companies, Inc.*, 654 F.2d 204, 210 (2d Cir. 1981) (holding that an allegedly infringing television series was too different in total concept and feel to constitute an infringing appropriation); *Arnstein v. BMI*, 137 F.2d 410, 412 (2d Cir. 1943) (finding that two songs were too dissimilar to the layman's ear for the second to constitute an infringing appropriation). See also Part III.B.2.

plaintiff has established these two elements, then the court must decide whether the use made was fair.⁷⁷

As components of this infringing appropriation inquiry, the idea-expression dichotomy, the similarity necessary to establish an infringing appropriation, and the scope of fair use play a critical role in defining the scope of protection copyright provides. They define what another can and cannot do with a copyrighted work, implicitly delineating the boundaries of the author's property in her work. The incentives-access paradigm has influenced the development of each of these three boundaries. It has guided the separation of a work's protected and unprotected aspects; it has defined the similarity necessary to establish infringement; and it has formed the basis for the present-day fair use doctrine. The following Sections explore the paradigm's influence on each of these issues in turn, beginning with the familiar maxim that copyright gives protection "only to the expression of the idea—not the idea itself."⁷⁸

A. *Defining a Work's Unprotected Aspects*

Once a court⁷⁹ has identified an original aspect of a work as being unprotected by copyright, as being an "idea," the effects of that identification are relatively clear. The sharing of that unprotected aspect or of the similarities that necessarily result from that aspect⁸⁰ cannot support an inference that the later work borrowed from the original,⁸¹ nor can such borrowing amount to an infringing appropriation.⁸² While the effects of identifying an aspect of a work as

77. See *Campbell*, 114 S. Ct. at 1169 (addressing whether the use made was fair given that the parties conceded that the use would otherwise be infringing).

78. *Mazer v. Stein*, 347 U.S. 201, 217 (1954).

79. In this area, the court decisions have generally led, and Congress has generally followed. See, for example, *id.* at 201, codified in 17 U.S.C. §§ 101, 113(b) (1994 ed.) (defining pictorial, graphic, and sculptural works); *Baker*, 101 U.S. (11 Otto) at 99, codified in 17 U.S.C. § 102(b). But see *Stowe*, 23 F. Cases at 206 (holding that the exclusive rights conferred by copyright do not include the exclusive right to make translations of the work), overruled by statute, Act of July 8, 1870, ch. 230, § 86, 16 Stat. 198 (granting authors the exclusive translation right). This discussion will, therefore, focus on the limits courts have imposed, keeping in mind that Congress has subsequently codified many of the same limits.

80. See *Baker*, 101 U.S. (11 Otto) at 103-05. If an unprotected aspect dictates every aspect of a work, then copyright will protect no aspect of the work. See *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738, 742 (9th Cir. 1971). See also text accompanying notes 177-89.

81. See, for example, *Arnstein*, 154 F.2d at 468 (allowing dissection to determine if similarities are sufficient to support a finding that the defendant actually copied).

82. The courts have followed two principal approaches to determine whether borrowing from an original work amounts to an infringing appropriation: (1) the *Arnstein* wrongful appropriation test, see 154 F.2d at 473 (asking whether ordinary observers would consider the two works "inexcusably alike, in terms of the way in which lay listeners of such music would be likely to react"); and (2) the *Krofft* extrinsic-intrinsic test, see 562 F.2d at 1164 (finding that the

an idea are thus relatively clear,⁸³ the task of identifying which aspects a court should leave unprotected has proven more difficult. Judge Learned Hand noted the difficulties on several occasions,⁸⁴ and eventually concluded that “[o]bviously, no principle can be stated as to when an imitator has gone beyond copying the ‘idea’ and has borrowed its ‘expression.’ Decisions [about where to draw the line between idea and expression] must therefore inevitably be *ad hoc*.”⁸⁵ Despite the difficulty, once courts departed from a literal duplication standard for infringement,⁸⁶ such a line became essential in order to separate those aspects of a work that belong to its author from those

second work must be substantially similar to the original in both ideas and in expression and concluding that the expression will be too similar if the “ordinary reasonable person” would find the later work “duplicates [the] peculiar appeal” or “total concept and feel” of the earlier work). Neither test expressly permitted a court to separate idea from expression in judging the response of the ordinary observer to the two works. See *Arnstein*, 154 F.2d at 473 (precluding analytic dissection in judging the response of the ordinary observer); *Krofft*, 562 F.2d at 1165 (same). Because similarities in the unprotected aspects of the works might result in the two works appearing “inexcusably alike” to an ordinary observer, the failure to separate the protected and unprotected aspects of a work created a substantial risk that a jury could find infringement because of similarities dictated by unprotected aspects of the two works. Such a risk would, as a practical matter, tend to extend protection to the unprotected aspects of a copyrighted work. To redress this deficiency in the two tests, later courts have modified the ordinary observer aspect of both tests to ensure that similarities resulting from unprotected aspects of a work cannot establish infringement. See *Cooling Systems & Flexibles v. Stuart Radiator*, 777 F.2d 485, 493 (9th Cir. 1985) (modifying *Krofft*’s intrinsic test to require the ordinary observer to consider only those similarities between the later work and the protected aspects of the original); *Litchfield*, 736 F.2d at 1356 (modifying *Krofft*’s extrinsic test to require an objective examination of the similarities between the two works to prevent a finding of infringement based upon the similarities resulting from the unprotected aspects); *Universal Athletic Sales Co. v. Salkeld*, 511 F.2d 904, 909 (3d Cir. 1975) (modifying *Arnstein*’s improper appropriation test to require the ordinary observer to judge whether the two works are substantially similar based solely on similarities between the later work and the protected aspects of the original); *Herbert Rosenthal Jewelry Corp. v. Honora Jewelry Co.*, 509 F.2d 64, 66 (2d Cir. 1974) (same); *Scott v. WKJG, Inc.*, 376 F.2d 467, 469 (7th Cir. 1967) (same).

83. Some disagreements remain, principally over whether unprotected elements should be considered in determining whether the allegedly infringing work is substantially similar as a whole to the original work. Compare *McCulloch v. Price*, 823 F.2d 316, 320-21 (9th Cir. 1987) (holding that the phrase “You Are Special Today” is unprotected, but must be considered in determining whether the total concept and feel of the later work is sufficiently similar to the original to constitute an infringing appropriation), with *Cooling Systems*, 777 F.2d at 493 (holding that the unprotected elements cannot be considered in determining whether the total concept and feel of the later work is sufficiently similar to the original to constitute an infringing appropriation).

84. See *Nichols*, 45 F.2d at 121; *Peter Pan Fabrics, Inc. v. Martin Weiner Corp.*, 274 F.2d 487, 489 (2d Cir. 1960).

85. *Peter Pan Fabrics*, 274 F.2d at 489.

86. Courts perceived a literal duplication standard as providing inadequate protection of an author’s property. See *Nichols*, 45 F.2d at 121 (“It 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 do not.⁸⁷ Moreover, despite Judge Hand's warning, courts have devised a number of tests intended to separate a work's protected and unprotected elements.⁸⁸

While each of these tests purports to provide a means to separate protected expression from unprotected ideas, each requires an external key—a key that courts have relied on the incentives-access paradigm to provide.⁸⁹ Consider, for example, Judge Hand's own levels-of-abstraction approach.⁹⁰ Using this approach, a court attempts to separate a work's protected and unprotected elements by looking to see whether the alleged infringer has copied sufficiently concrete or detailed aspects of the original.⁹¹ If the copier has taken elements sufficiently detailed to be considered expression, then the copier has taken a protected element.⁹² If the copier has taken only those elements that are sufficiently abstract as to be considered ideas, then no infringement has occurred.⁹³ As Judge Hand expressed it:

Upon any work, and especially upon a play, a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of

87. Compare by analogy *id.* (“[B]ut, as soon as literal appropriation ceases to be the test, the whole matter is necessarily at large”).

88. See, for example, *Computer Associates*, 982 F.2d at 706-11 (identifying the unprotected elements of a work through abstraction, filtration, and a comparison test); *Krofft*, 562 F.2d at 1168 n.10 (“A description of the ‘what’ and the ‘how’ of a work serves as a useful tool in determining whether the expression of an idea differs from the idea itself. If, in describing how a work is expressed, the description differs little from a simple description of what the work is, then idea and expression coincide”); *Herbert Rosenthal Jewelry*, 446 F.2d at 742 (“When the ‘idea’ and its ‘expression’ are thus inseparable, copying the ‘expression’ will not be barred, since protecting the ‘expression’ in such circumstances would confer a monopoly of the ‘idea’ upon the copyright owner”). See also Zachariah Chafee, *Reflections on the Law of Copyright*, 45 Colum. L. Rev. 503, 513 (1945) (“I like to say that the protection covers the ‘pattern’ of the work . . . the sequence of events and the development of the interplay of the characters”).

89. Some of the tests expressly require an external key, see *Computer Associates*, 982 F.2d at 707-08 (defining unprotected elements according to the need for access to the element); *Herbert Rosenthal Jewelry*, 446 F.2d at 742 (holding that the court should identify a work's idea(s) in order to preserve “the balance between competition and protection reflected in the patent and copyright laws”), while others internally incorporated an access-derived key, see *Krofft*, 562 F.2d at 1168 n.10 (concluding that the unprotected level is “a simple description of what the work is” and justifying this conclusion by balancing incentives and access); Chafee, 45 Colum. L. Rev. at 513 (cited in note 88) (concluding that protection covers “the sequence of events and the development of the interplay of the characters” and implicitly justifying this conclusion with the incentives-access balance).

90. See *Nichols*, 45 F.2d at 121-22.

91. *Id.* See *Universal Athletic Sales*, 511 F.2d at 909; *Dellar v. Samuel Goldwyn, Inc.*, 150 F.2d 612, 612 (2d Cir. 1945).

92. See, for example, *Engineering Dynamics, Inc. v. Structural Software, Inc.*, 26 F.3d 1335, 1343-44 (5th Cir. 1994); *Nichols*, 45 F.2d at 121.

93. See, for example, *Engineering Dynamics*, 26 F.3d at 1343-44; *Nichols*, 45 F.2d at 122; *Computer Associates Intl., Inc. v. Altai, Inc.*, 775 F. Supp. 544, 560 (E.D.N.Y. 1991), affirmed in part and vacated in part, 982 F.2d 693 (2d Cir. 1992).

what the play is about, and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected, since otherwise the playwright could prevent the use of his "ideas," to which, apart from their expression, his property is never extended.⁹⁴

Using this test, a court separates a work's protected and unprotected elements by determining whether the level at which the alleged infringer has borrowed from the original is sufficiently concrete to be protected expression, or sufficiently abstract to be an unprotected idea.⁹⁵

While any number of courts have purportedly used this approach to determine whether a copier has taken a protected element from the original work,⁹⁶ the approach cannot separate a work's protected and unprotected elements because it fails to define the level of abstraction at which protection begins.⁹⁷ As a result, a court using the approach can determine that the element taken was more or less abstract, but the court remains uncertain as to whether the element is in any event sufficiently abstract to constitute an unprotected idea or sufficiently concrete to constitute protected expression. Because of this omission, the levels-of-abstraction approach, while it provides a comfortable path to tread and generates the semblance of rigorous analysis, can reveal nothing more than the court's preconceptions.⁹⁸

94. *Nichols*, 45 F.2d at 121.

95. See, for example, *Lotus Dev. Corp. v. Borland Intl., Inc.*, 49 F.3d 807, 814 (1st Cir. 1995), affirmed, 116 S. Ct. 804 (1996); *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1445 (9th Cir. 1994); *Engineering Dynamics*, 26 F.3d at 1343-48.

96. See, for example, *Shaw v. Lindheim*, 919 F.2d 1353, 1356 (9th Cir. 1990) (applying Judge Hand's levels-of-abstractions test to separate the unprotected idea from the protected expression); *Kern River Gas*, 899 F.2d at 1463 (same); *Walker v. Time Life Films, Inc.*, 784 F.2d 44, 49 (2d Cir. 1986) (same); *Atari, Inc. v. North American Philips Consumer Electronics Corp.*, 672 F.2d 607, 615 (7th Cir. 1982) (same); *Krofft*, 562 F.2d at 1163 (same); *Reyher*, 533 F.2d at 92 (same); *Universal Athletic Sales*, 511 F.2d at 909 (same); *Herbert Rosenthal Jewelry*, 446 F.2d at 742 (same).

97. See, for example, *Nash v. CBS, Inc.*, 899 F.2d 1537, 1540 (7th Cir. 1990) ("Hand's insight is not a 'test' at all"); Kaplan, *An Unhurried View of Copyright* at 77 (cited in note 12); Nimmer and Nimmer, *Nimmer on Copyright* § 13.03[A], at 13-33 (cited in note 57).

98. Compare by analogy *Herbert Rosenthal Jewelry*, 446 F.2d at 742 ("At least in close cases, one may suspect, the classification the court selects [whether idea or expression] may simply state the result reached rather than the reason for it"). Unfortunately, the seductive suggestion of an answer found in the levels-of-abstraction approach has sometimes led courts to overlook the need for something more. Particularly troubling are those decisions that rely on word games to fix the appropriate level of protection. For example, in *Krofft*, the court suggests the following test for determining if merger has occurred: "If, in describing how a work is expressed, the description differs little from a simple description of what the work is, then idea and expression coincide." 562 F.2d at 1168 n.10. See *Midway Mfg. Co. v. Bandai-America, Inc.*, 546 F. Supp. 125, 148 n.23 (D.N.J. 1982) (suggesting that merger should be found "if a work cannot be described in abstract terms, the expression adds nothing to the idea"), affirmed, 775

For the levels-of-abstraction approach to reveal something more requires a sensible means to identify the level of abstraction where protection should begin.

While some courts have relied on a form of metaphysical dart throwing to identify the relevant level,⁹⁹ most have relied on the incentives-access paradigm.¹⁰⁰ By identifying access as the limiting principle for copyright protection, the paradigm directs a court to examine the need for access to determine whether any given level of abstraction, or any given element, is one copyright should protect. If such an examination reveals that extending protection to a particular level, or a particular element, would unduly threaten the creation of future works or the dissemination of existing works, then the need for

F.2d 70 (3d Cir. 1985). Yet, that test is useless unless we know how "simple" the "description of what the work is" should be. For example, under this test, should we describe the work in *Herbert Rosenthal Jewelry* as an object, a man-made object, an adorning object, a piece of jewelry, a piece of gold jewelry, or something else? Words alone cannot answer that question. Similarly, in *Computer Associates*, 982 F.2d at 705, the Second Circuit criticized and rejected the approach to defining the idea or ideas of a computer program that the Third Circuit adopted in *Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc.*, 797 F.2d 1222, 1236 (3d Cir. 1986) ("[T]he purpose or function of a utilitarian work would be the work's idea, and everything that is not necessary to the purpose or function would be part of the expression of the idea"). While criticizing the *Whelan* court for relying on metaphysical distinctions, the Second Circuit relied on similar metaphysics in its definition of a program's idea or ideas; it simply changed the relevant "program" whose purpose we are identifying. See *Computer Associates*, 982 F.2d at 705 ("As we have already noted, a computer program's ultimate function or purpose is the composite result of interacting subroutines. . . . [E]ach subroutine is itself a program, and thus, may be said to have its own 'idea'"). Every line of code in a program instructs a computer to take (or not take) some action, and is in that sense a "program." Should we, therefore, define the "ideas" in the program as the purpose of each line of instruction? I think not, yet the *Computer Associates* court failed to explain why its definition of "program" tied into "practical considerations" better than defining the program as a whole as "the" program, or defining each instruction as "the" program. As a result, when it described the various filtration rules, it defined them with respect to an idea (or set of ideas) that "relies too heavily on metaphysical distinctions and does not place enough emphasis on practical considerations." *Id.* at 706. Now, it may so happen that *Computer Associates's* metaphysical choice of how many lines of code it takes to make a "program," whose purpose we will leave unprotected, accurately captures the level of abstraction that copyright should leave unprotected, but relying on coincidence alone to achieve the appropriate level of protection seems an unwise way to proceed.

99. See *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240, 1253 (3d Cir. 1983) ("The idea of one of the operating system programs is, for example, how to translate source code into object code. If other methods of expressing that idea are not foreclosed as a practical matter, then there is no merger. Franklin may wish to achieve total compatibility with independently developed application programs written for the Apple II, but that is a commercial and competitive objective which does not enter into the somewhat metaphysical issue of whether particular ideas and expressions have merged").

100. See *Nash v. CBS, Inc.*, 899 F.2d 1537, 1540-41 (7th Cir. 1990); *Kern River Gas*, 899 F.2d at 1463 ("In drawing this fundamental distinction [between protected expression and unprotected ideas], Congress balanced the competing concerns of providing incentive to authors to create and of fostering competition in such creativity"); *Warner Brothers v. American Broadcasting*, 720 F.2d 231, 240 (2d Cir. 1983); *Durham Industries, Inc. v. Tomy Corp.*, 630 F.2d 905, 912 (2d Cir. 1980); *Reyher*, 533 F.2d at 90.

access to that level or element will outweigh the need for incentives, and the paradigm will impose a limit on copyright's protection. In the conclusory terms courts often use when applying the levels-of-abstraction approach, actual copying at that level, or of that element, would involve only an unprotected idea.¹⁰¹

In application, courts have found the need for access compelling, and have accordingly limited copyright protection, in two circumstances. First, courts have limited copyright protection to ensure the ability of later authors to create their own works. Second, courts have limited copyright protection to ensure society's access to adequate substitutes for the original.

1. Elements Left Unprotected to Ensure the Creation of Future Works

No work is entirely new.¹⁰² As a general matter, every work of authorship consists of varying proportions of the following: (a) elements the author consciously copies from earlier works; (b) elements the author unconsciously copies from earlier works; (c) elements the author independently creates that also happen to appear in earlier works; and (d) elements the author independently creates that have not appeared in earlier works. Because an author will inevitably reuse some elements that have appeared previously in earlier copyrighted works,¹⁰³ allowing a trier of fact to find infringement based upon the reappearance of such elements would unduly limit the ability of later authors to exercise their own creativity and would threaten the creation of future works.

Copyright attempts to guard against such a risk by requiring a plaintiff to demonstrate actual copying in order to establish that another has infringed her copyrighted work.¹⁰⁴ As a matter of formal

101. See, for example, *Baker*, 101 U.S. (11 Otto) at 103; *Litchfield*, 736 F.2d at 1357 ("Any similarities in plot exist only at the general level for which plaintiff cannot claim copyright protection").

102. See, for example, Kenneth B. Umbreit, *A Consideration of Copyright*, 87 U. Pa. L. Rev. 932, 942 (1939); *Berkic*, 761 F.2d at 1294 ("[I]n Hollywood, as in [life] generally, there is only rarely anything new under the sun"); *Emerson*, 8 F. Cases at 619 ("In truth, 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"). See also Ecclesiastes 1:9 ("There is no new thing under the sun").

103. See, for example, Umbreit, 87 U. Pa. L. Rev. at 942 (cited in note 102). As Professor Chafee explained, "The world goes ahead because each of us builds on the work of our predecessors." Chafee, 45 Colum. L. Rev. at 511 (cited in note 88).

104. See text accompanying notes 59-62.

copyright law, an author who, without actual copying, happens to repeat an element that can be found in a copyrighted work, or who unknowingly reproduces exactly a copyrighted work, is not an infringer.¹⁰⁵ So long as the alleged infringer created his work independently, without reference to, reliance on, or inspiration from¹⁰⁶ the copyrighted work, his work, even if identical, will not infringe the copyrighted work.¹⁰⁷ By allowing each author to pursue her own inspirations so long as she does not actually copy, the actual copying element attempts to assure each author adequate freedom to exercise her own creativity.

Two considerations suggest, however, that the actual copying element alone might not adequately address copyright's potential to curtail the production of future works. First, because of the difficulty of obtaining direct evidence of actual copying, copyright permits a plaintiff to establish actual copying circumstantially by proving opportunity to copy and undue similarity.¹⁰⁸ By allowing circumstantial proof of actual copying, copyright creates a risk that a trier of fact will mistake coincidental similarities for copying. At a sufficiently abstract level,¹⁰⁹ two works that explore the same or similar subject matter¹¹⁰ will inevitably share some common elements.¹¹¹ If copyright

105. *Fred Fisher*, 298 F. at 150 ("Any subsequent person is, of course, free to use all works in the public domain as sources for his compositions. No later work, though original, can take that from him. . . . The defendant's concern lest the public should be shut off from the use of works in the public domain is therefore illusory; no one suggests it"). See also *Bleistein v. Donaldson Lithographing Company*, 188 U.S. 239, 249 (1903) ("Others are free to copy the original. They are not free to copy the copy"). See also Landes and Posner, 18 J. Legal Stud. at 345-46 (cited in note 5) (arguing that the actual copying element adequately protects against an infringement finding based upon coincidental similarities).

106. See Nimmer and Nimmer, 3 *Nimmer on Copyright* § 13.01[B], at 13-9 (cited in note 57) (describing the elements required to establish copying).

107. As Judge Hand explained, "if by some magic a man who had never known it were to compose anew Keats's Ode on a Grecian Urn, he would be an 'author', and, if he copyrighted it, others might not copy that poem, though they might of course copy Keats's." *Sheldon v. Metro-Goldwyn Pictures Corp.*, 81 F.2d 49, 54 (2d Cir. 1936). See *Scholz Homes, Inc. v. Maddox*, 379 F.2d 84, 86 (6th Cir. 1967); *Harold Lloyd*, 65 F.2d at 4.

108. See, for example, *Baxter*, 812 F.2d at 423; *M. Kramer Mfg.*, 783 F.2d at 445; *Cholvin v. B. & F. Music Co.*, 253 F.2d 102 (7th Cir. 1958); *Arnstein*, 154 F.2d at 468; Nimmer and Nimmer, 3 *Nimmer on Copyright* § 13.01[B] (cited in note 57). See also *Nelson v. PRN Productions, Inc.*, 873 F.2d 1141, 1142 n.3 (8th Cir. 1989) (holding that copying can be inferred from a striking similarity even in the absence of any evidence of access); *Gaste v. Kaiserman*, 863 F.2d 1061, 1067-68 (2d Cir. 1988) (same).

109. See Lyman Ray Patterson, *Copyright in Historical Perspective* 215-16, 225 (Vanderbilt U., 1968) ("The contradiction of protecting ideas as private property in a society devoted to freedom of expression has been rationalized away with assurances that copyright does not protect ideas, but only the expression of ideas. The rationalization, however, will not stand up in light of the concept of copyright as it exists today").

110. Some courts and commentators tend to define "subject matter" and "idea" according to the connotation of those words in everyday speech. See, for example, *McCulloch*, 823 F.2d at 320 (explaining that the idea of a plate was "to honor someone special at dinner"). This method

permitted the trier of fact to infer copying from such similarities,¹¹² a later author who created his work without actually copying “would [nevertheless] face the grave risk of being found [an] infringer”¹¹³ simply because he explored the same subject matter as the plaintiff’s work.¹¹⁴ While the independent creation defense¹¹⁵ remains formally available to counter the inference of copying created by such similarities, later authors could never be certain that the trier of fact would properly distinguish coincidence from copying.¹¹⁶ Moreover,

of defining “idea” is troubling. While it would be convenient if the limits imposed on copyright by policy considerations happen to coincide with the everyday meanings of these words, there is no reason to believe that they necessarily will. Whether the subject matter or idea of the work in *Herbert Rosenthal Jewelry* is an adorning object, a piece of jewelry, a pin, a jeweled pin, a jeweled bee pin, a jeweled pin depicting a realistic bee, or something else, depends entirely on the appropriate level of abstraction at which policy dictates protection should begin. 446 F.2d at 739. If policy dictates that copyright must leave the work unprotected only at the level of “an adorning object,” then that is the unprotected subject matter or idea of the work. That ordinary people would refer to the subject matter or idea of the work as something else is irrelevant in defining the level of abstraction at which copyright protection begins, except to the extent that this ordinary usage implicates a relevant policy concern.

111. See, for example, *Krofft*, 562 F.2d at 1163; *Durham Industries*, 630 F.2d at 916 (“[F]ull faces, pert noses, bow hips, and large, widely spaced eyes are standard doll features”); *Stevenson v. Harris*, 238 F. 432, 436 (S.D.N.Y. 1917) (“Of necessity, certain kinds of incidents must be found in many books and plays”).

112. Professor Latman uses the phrase “probative similarity” to distinguish the sorts of similarities that will establish actual copying, and to separate such similarity from the similarity that, if the result of actual copying, will establish an infringing appropriation. Alan Latman, “Probative Similarity” As Proof of Copying: *Toward Dispelling Some Myths in Copyright Infringement*, 90 Colum. L. Rev. 1187, 1204-14 (1990). See *Beal v. Paramount Pictures Corp.*, 20 F.3d 454, 459 n.4 (11th Cir. 1994) (adopting Professor Latman’s usage).

113. *Krofft*, 562 F.2d at 1162-63.

114. See *id.* at 1162-64 (explaining that the first cheap plastic nude statue might monopolize the field of nude statues if actual copying alone established infringement). See also *Hoehling*, 618 F.2d at 978 (explaining that factual material in a work must be left unprotected in order to avoid a chilling effect on authors addressing the same subject matter); *Herbert Rosenthal Jewelry*, 446 F.2d at 742 (crafting the merger rule in order to limit the undue scope that copyright might otherwise provide given the use of circumstantial evidence and the possibility of unconscious copying).

115. Describing the issue as an “independent creation defense” is not meant to suggest that the defendant bears the burden of proof on this issue. The plaintiff, as part of her prima facie case, must establish actual copying. If the plaintiff presents sufficient evidence to permit a reasonable inference of actual copying, the defendant may counter with evidence of independent creation. But the burden of establishing actual copying remains on the plaintiff. See *Overman v. Loesser*, 205 F.2d 521, 524 (9th Cir. 1953).

116. In trying to establish independent creation, the defendant would face the dual hurdles of unconscious borrowing and inevitably self-serving testimony. See *Herbert Rosenthal Jewelry*, 446 F.2d at 741 (holding that despite the defendants’ testimony and the trial court’s factual finding of independent creation, it could not affirm because “[i]t seems unrealistic to suppose that defendants could have closed their minds to plaintiff’s highly successful jeweled bee pin as they designed their own”). Because of these two factors, courts have tended to rely on an examination of the two works, discounting the defendant’s testimony of independent creation. See *Abkco Music, Inc. v. Harrison’s Music, Ltd.*, 722 F.2d 988, 997-99 (2d Cir. 1983); *Sheldon*,

even if a jury separated coincidence from copying in any given case, the later author would still incur the substantial direct and indirect¹¹⁷ costs of defending an infringement action.¹¹⁸ Only by limiting its protection to a level of abstraction where the coincidental reappearance of an element becomes unlikely can copyright minimize the risk and uncertainty associated with the independent creation defense and thereby ensure the practical ability of others to pursue their own creative works.¹¹⁹

Second, if coincidence is likely to lead to an element's reappearance, the element will, over time, likely appear independently in a number of works. If copyright protected such an element, a later author wishing to reuse that element would face extreme difficulty obtaining the requisite permission. Because the element would likely appear in any number of works, the later author might be unable to remember precisely where she saw it and unable to determine from whom she should obtain a license. Moreover, a license from only one of the earlier authors who had used the element would not fully protect the later author from an infringement action. If copyright protected such an element, each author whose earlier work independently contained that element could sue any given later

81 F.2d at 54 ("Finally, in concluding as we do that the defendants used the play pro tanto, we need not charge their witnesses with perjury. With so many sources before them they might quite honestly forget what they took; nobody knows the origin of his inventions; memory and fancy merge even in adults. Yet unconscious plagiarism is actionable quite as much as deliberate"); *Fred Fisher*, 298 F. at 147 ("[The defendant] swears that he was quite unconscious of any plagiarism, and on the whole I am disposed to give him the benefit of the doubt. . . . Whether he unconsciously copied the figure, he cannot say, and does not try to. Everything registers somewhere in our memories, and no one can tell what may evoke it. On the whole, my belief is that, in composing the accompaniment to the refrain of 'Kalua,' [the defendant] must have followed, probably unconsciously, what he had certainly often heard only a short time before. I cannot really see how else to account for a similarity, which amounts to identity").

117. The principal indirect cost would be the harm that an allegation of infringement would impose on a person's reputation. See *Fred Fisher*, 298 F. at 147. Thus, when a court found Rod Stewart guilty of copyright infringement in creating his song, "Do Ya Think I'm Sexy," Stewart explained that "he was too drunk . . . to realize he was copying." *Stewart Says Drunkenness to Blame for Copying Song; Sexy Echoes Brazilian Tune*, New Orleans Times-Picayune A37 (Jan. 1, 1995). Apparently, it is better to be a drunkard than a copier.

118. See *Nash*, 899 F.2d at 1540 (explaining that the cost of litigation may discourage the production of new works).

119. See, for example, *Arica Institute, Inc. v. Palmer*, 761 F. Supp. 1056, 1062 (S.D.N.Y. 1991) ("Courts will not find copyright infringement where the only similarity between plaintiff's and defendant's work is that of an abstract idea, system or discovery because to do so would unduly inhibit independent creation by others"), affirmed, 970 F.2d 1067 (2d Cir. 1992); *Gund, Inc. v. Smile Intl., Inc.*, 691 F. Supp. 642, 644 (E.D.N.Y. 1988) ("What must be meant by the provision denying protection to 'ideas' is that the law will not grant an author a monopoly over the unparticularized expression of an idea at such a level of abstraction or generality as unduly to inhibit independent creation by others").

author whose work repeated that element. A license from one of the earlier authors would not bar suit by the other earlier authors, as a jury could plausibly infer that the later author had also copied, perhaps unconsciously, from earlier works aside from the licensed work.¹²⁰ In order to avoid an infringement action, a later author would have to obtain a license to use such an element, not once, but from each of the earlier authors in whose work the element appeared. The costs of searching multiple works to identify where the element had previously appeared and the transaction costs of obtaining multiple permissions to reuse the element might prevent the later use of the element altogether, even by a later author who would be willing to pay an acceptable price to license the element from one of the earlier authors.

Thus, if copyright extended its protection to elements that are likely to reappear in other works even without copying, the threat of multiple lawsuits such protection would entail, together with the undue transaction costs associated with obtaining multiple licenses, would have a substantial "chilling effect"¹²¹ on the work of future authors.¹²² Such protection would deter, rather than encourage the production of creative works. As Judge Newman has explained:

It is a fundamental objective of the copyright law to foster creativity. However, that law has the capacity both to augment and diminish the prospects for creativity. By assuring the author of an original work the exclusive benefits of whatever commercial success his or her work enjoys, the law obviously promoted creativity. At the same time, it can deter the creation of new works if authors are fearful that their creations will too readily be found to be substantially similar to preexisting works.¹²³

In order to avoid deterring future works, the incentives-access paradigm suggests that copyright should limit its protection for a work's original elements to that level of abstraction where an element's coincidental reappearance becomes unlikely.¹²⁴ Such a limit provides later

120. See, for example, *Sheldon*, 81 F.2d at 54-55 (ruling that even though movie producers had a license from the author of a novel concerning events in Madeleine Smith's life, the movie infringed upon a play based upon the same events).

121. *Hoehling*, 618 F.2d at 978.

122. See *Warner Brothers*, 720 F.2d at 240. See also *Reyher*, 533 F.2d at 90.

123. *Warner Brothers*, 720 F.2d at 240. See also *Frybarger v. IBM Corp.*, 812 F.2d 525, 530 (9th Cir. 1987) ("[I]deas and scenes a faire] have been left explicitly unprotected in order to encourage their individual expression in original works of authorship").

124. See, for example, *Aliotti v. R. Dakin & Co.*, 831 F.2d 898, 901 (9th Cir. 1987) (limiting protection for stuffed toy dinosaurs); *Eden Toys*, 675 F.2d at 500 (limiting protection for a snowman toy because, "[f]or countless generations, children and the young at heart have built

authors a safe harbor within which they can exercise their own creativity without fear that a trier of fact will mistake their independent work for a copy, and it ensures that future authors will not face undue transaction costs in obtaining access to those elements they need to create their own works.

Because an element's likely reappearance will vary depending on the type of work and the nature of the element at issue, the incentives-access paradigm further suggests that the exact level of abstraction at which protection begins should also vary.¹²⁵ For realistic works, and for elements that a later author can readily find in the preexisting public domain, coincidental similarities are likely to occur even at a fairly precise level of detail.¹²⁶ Two news stories about the same event, two toy snowmen, or two paintings of a cardinal are likely to share similarities at a reasonably detailed level, even in the absence of copying, because of the common public source.¹²⁷ Similarly, common training, a common approach to problem solving, and the external constraints that efficiency and memory limitations impose mean that two computer programs written to achieve the same end are likely to share similarities at a reasonably detailed level, even in the absence of copying.¹²⁸ In these types of works, coincidence re-

snowmen"); *Gund*, 691 F. Supp. at 645 (limiting protection for a floppy stuffed dog because its particular pose was "a common sight").

125. Some cases seem to vary the standards for protection informally in cases where the proof of actual copying seems particularly strong. See, for example, *Whelan*, 797 F.2d at 1222 (giving broad protection where other evidence strongly suggested that the defendant actually copied from the plaintiff's computer program); *Kitchens of Sara Lee, Inc. v. Nifty Foods Corp.*, 266 F.2d 541 (2d Cir. 1959) (applying a loose standard of originality in a case where actual copying by the defendant was clear).

126. See *Pasillas*, 927 F.2d at 443 n.2 (rejecting the plaintiff's attempt to limit narrow protection to works that depict natural objects, the court noted that "various expressions [of certain fictional or mythical characters] share standard or stock elements"); *Aliotti*, 831 F.2d at 901 n.1 (portraying a tyrannosaurus rex toy with its mouth open was not protected because "Tyrannosaurus . . . was a carnivore and is commonly pictured with its mouth open"); *Concrete Machinery Co. v. Classic Lawn Ornaments Inc.*, 843 F.2d 600, 607 (1st Cir. 1988) (holding that a realistic-looking concrete deer is too general to be protected); *Russ Berrie & Co. v. Jerry Elsner Co., Inc.*, 482 F. Supp. 980, 986 (S.D.N.Y. 1980) (leaving unprotected those features that are common to all Santas).

127. See, for example, *Eden Toys*, 675 F.2d at 500; *Franklin Mint*, 575 F.2d at 66. See also *Aliotti*, 831 F.2d at 901-02; *Herbert Rosenthal Jewelry*, 509 F.2d at 65 ("Since all turtles are created more or less along the same lines, appellant cannot, by obtaining a copyright upon one design of a turtle pin, exclude all others from manufacturing gold turtle pins on the ground that they are substantially similar in appearance").

128. See, for example, *Computer Associates*, 982 F.2d at 708-10. See also *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 490 (1974) ("The ripeness-of-time concept of invention, developed from the study of the many independent multiple discoveries in history, predicts that if a particular individual had not made a particular discovery others would have, and in probably a relatively short period of time. If something is to be discovered at all very likely it will be discovered by more than one person"); William F. Ogburn and Dorothy Thomas, *Are Inventions*

mains plausible as an explanation for even reasonably detailed similarities between an earlier and a later work. As a result, the incentives-access paradigm suggests that copyright must limit its protection for these works to a relatively concrete and detailed level, and courts, following the paradigm's lead, have done so.¹²⁹

In contrast, coincidence does not provide as convincing an explanation for an element's reappearance in fictional or fanciful works. If two stories depict nearly identical characters who are engaging in nearly identical behavior, coincidence provides a convincing explanation for those similarities only if, and to the extent that, both stories derive from some common public source.¹³⁰ This is not to say that coincidental similarities will never occur in fictional works. When a particular development—whether that be space travel,¹³¹ organ transplants,¹³² the inability of the police to deal with crime,¹³³ or the reintegration of Vietnam veterans into our society¹³⁴—captures the public's attention, that development will likely provide similar inspira-

Inevitable?, 37 Pol. Sci. Q. 83 (1922) (listing various inventions that were simultaneously and independently discovered by two different people or groups of people).

129. See, for example, *Computer Associates*, 982 F.2d at 708-11; *Aliotti*, 831 F.2d at 901-02; *Herbert Rosenthal Jewelry*, 509 F.2d at 65-66; *Gund*, 691 F. Supp. at 645 (limiting protection for a floppy stuffed dog because its particular pose was "a common sight").

130. See, for example, *Folio Impressions, Inc. v. Byer California*, 937 F.2d 759, 766 (2d Cir. 1991) (refusing to find infringement of a rose-decorated fabric pattern, the court noted that "playwrights and poets from William Shakespeare to Gertrude Stein have extolled the beauty of this five-petaled flower, [and] by the rose's very nature one artist's rendering of it will closely resemble another artist's work"); *Mattel, Inc. v. Azrak-Hamway Intl., Inc.*, 724 F.2d 357, 360 (2d Cir. 1983) (per curiam) (holding that a "superhuman muscleman" is an unprotected idea); *Detective Comics, Inc. v. Bruns Pubs., Inc.*, 111 F.2d 432, 433-34 (2d Cir. 1940) (referring to a preexisting public domain character, "benevolent Hercules," in defining the limits of copyright's protection); *Sheldon*, 81 F.2d at 54-55 (noting that while both a play and a movie drew on actual events, they shared elements not found in the actual events, and these additional similarities established infringement of the play by the movie); *McConnor v. Kaufman*, 49 F. Supp. 738, 743 (S.D.N.Y. 1943) (stating that although two works shared "the matter of baby talk by the Woolcott characters," that was "one of Woolcott's irritating weaknesses" and was well-known by the public; therefore it was not sufficient to establish infringement).

131. See *Litchfield*, 736 F.2d at 1356-57 (explaining that a movie's sharing of the theme of humans encountering extraterrestrials with an earlier copyrighted play was not sufficient to establish infringement).

132. See *Berkic*, 761 F.2d at 1293; *London*, 231 F. at 698 ("Of course, in transferring the action of this story, centuries old, to modern times, the criminals will not be Orientals, but highwaymen or burglars; their home will not be in a cave or a hut in a wood, but in a rented room in a modern building; their surroundings will be squalid, not comprising a separate kitchen; they will perpetrate their crimes according to modern methods; if they are to be given poison, it will presumably be conveyed in meat or bread, coffee or whiskey").

133. See *Shaw*, 919 F.2d at 1362; *Olson v. National Broadcasting Co.*, 855 F.2d 1446, 1450 (9th Cir. 1988).

134. *Olson*, 855 F.2d at 1450.

tions to any number of authors.¹³⁵ Coincidence might also explain even more detailed similarities if the two authors are simply integrating a new development into an old storyline.¹³⁶ Yet, in the absence of some common referent, two authors are unlikely to produce independently fictional works that share the sort of detailed similarity likely to be found in two independent accounts of a specific historic event. For fictional works, coincidence becomes likely only at that fairly abstract level where a common culture and a common audience are likely to lead disparate authors to repeat one another.¹³⁷ For that reason, the incentives-access paradigm suggests that copyright should extend its protection for fictional works to a higher level of abstraction than it does for factual or useful works, and again the courts have followed the paradigm's lead.¹³⁸

Coincidence thus imposes one limit on the scope of copyright protection in order to safeguard the ability of others to pursue their

135. Thus, two authors might independently choose to portray a karate match. Because karate is an established sport, with recognized scoring and moves, their portrayals would likely share a number of elements. See *Data East*, 862 F.2d at 208-09 (identifying the elements required by existing karate practices to be ideas). On the other hand, some associations are so unusual that others subjected to the same stimulus will not share the same inspiration or insight. See *Heim v. Universal Pictures Co.*, 154 F.2d 480, 488 (2d Cir. 1946) ("Buchanan tells us that Kekule's 'idea of the carbon-ring came out of the lurid imagery of a morning after a party'; [m]any a chemist had had a like experience without such a fruitful result. Hamilton reported of his great mathematical discovery that 'the Quaternions started into life, or light, full grown, on the 16th day of October, as I was walking with Lady Hamilton to Dublin, and came up te Brougham Bridge'; no other mathematician who had observed a bridge when strolling with his wife in mid-October had made the same discovery" (footnotes omitted)).

136. See, for example, *Berkic*, 761 F.2d at 1293.

137. See, for example, *Selle*, 741 F.2d at 904 (recognizing the possibility of incidental similarities in simple themes created to satisfy the demands of the "popular ear"); *Warner Bros.*, 654 F.2d at 208-10 (identifying various superhero characteristics as "too common and general" to constitute expression); *Darrell v. Joe Morris Co.*, 113 F.2d 80, 80 (2d Cir. 1940) ("While there is an enormous number of possible permutations of the musical notes of the scale, only a few are pleasing; and much fewer still suit the infantile demands of the popular ear. Recurrence is not therefore an inevitable badge of plagiarism"); *Pendelton v. Acuff-Rose Publishers, Inc.*, 605 F. Supp. 477, 485-86 (M.D. Tenn. 1984) (holding that certain elements are not protected in musical work because "even an occasional country music listener" would likely encounter them in any number of such works).

138. See *Krofft*, 562 F.2d at 1168 (suggesting broader protection for Michelangelo's David were it copyrighted "because so much more was added in the expression over the idea"); *Atari*, 672 F.2d at 617 ("As a work embodies more in the way of particularized expression, it moves farther away from the bee pin in *Kalpakian*, and receives broader copyright protection"); *Franklin Mint*, 575 F.2d at 65 (explaining that impressionist paintings receive greater protection under copyright law than realistic paintings because "the lay observer will be able to differentiate more readily between the reality of subject matter and subjective effect of the artist's work"); *Universal Athletic Sales*, 511 F.2d at 908. See also Peter Jaszi, *Toward a Theory of Copyright: The Metamorphoses of "Authorship"*, 1991 Duke L. J. 455, 462 ("In that heirarchy [of artistic productions implicitly recognized by Romantic notions of authorship], art contains greater value if it results from true imagination rather than mere application, particularly if its creator draws inspiration directly from nature").

own creative endeavors. By identifying as ideas those elements of a work that, even though original, are likely to reappear in later works even in the absence of copying, copyright ensures later authors a certain degree of freedom to pursue their own creativity without undue fear of an infringement action. Coincidence is not, however, the only limit on the scope of copyright's protection. In some cases, a court will find no infringement when a later work copies an element from a copyrighted work even though the element is not one whose reappearance in a later work can be explained by coincidence.¹³⁹ In these cases, the court is leaving the element unprotected in order to address the second access concern: avoiding a risk of undue monopolization.

2. Aspects Left Unprotected to Avoid Undue Monopolization

Copyright can create market power in a protected work by preventing others from marketing a perfect substitute for the original. Such market power will, in turn, generate a deadweight loss as authors exploit their market power by setting a supracompetitive price. In order to avoid creating an undue deadweight loss, copyright must limit the extent of the market power that a work's copyright can create.¹⁴⁰ Copyright can do so by ensuring that later authors can copy

139. See, for example, *Baker*, 101 U.S. (11 Otto) at 105; *Lotus Development*, 49 F.3d at 815. See also Part III.A.2.

140. If a market, properly defined, see notes 142, 156, contains more than a few competing works, then a consumer's ability to switch to a competing work within the market will, as a practical matter, constrain the price a particular author can charge for her work (at least in the absence of collusion with her competitors). If a particular author tries to charge significantly more than the price of competing works within the market, consumers will simply turn to one of her competitors to satisfy their desires. See, for example, Posner, *Antitrust Law* at 8-9 (cited in note 12); Glynn S. Lunney, Jr., Comment, *Atari Games v. Nintendo: Does a Closed System Violate the Antitrust Laws*, 5 High Tech. L. J. 29, 35 (1990). As a theoretical limit, if there are a large number of individuals producing what consumers consider to be perfect substitutes for one another, then no single author will be able to price her work above her marginal cost. Any attempt to do so will result in consumers switching immediately to a competitor's product. Economists refer to such a market as a "perfectly competitive" market. See, for example, F.M. Scherer, *Industrial Market Structure and Economic Performance* 9-10 (Rand McNally, 1970).

On the other hand, if a market, properly defined, contains only one work, then consumers will have little ability to switch to another product should that work's author decide to raise her price. As a result, such an author can raise her price without undue fear of losing sales to a competitor. A relative lack of competitors does not mean, however, that such an author can charge any price whatsoever for her work. As she raises her price, some consumers will balk, deciding to do without or to manage with the inadequate substitutes otherwise available rather than pay the higher price. Because a higher price will usually reduce her sales volume, an author who is unable to price discriminate will balance charging a higher price for fewer copies, against charging a lower price for more copies, to determine her profit-maximizing price. While her desire for maximum profit will, therefore, constrain her pricing decision, an author who

those elements from an earlier copyrighted work that they need in order to produce reasonable¹⁴¹ substitutes for the earlier work. By ensuring the availability of reasonable substitutes, copyright can prevent an author from obtaining undue market power in any given market.¹⁴²

Note that the choice here is not between some market power and no market power, or between monopoly and property as some have phrased it.¹⁴³ As soon as copyright prohibits exact duplication of an author's work, it forces consumers to turn to one source—the copy-

finds her work alone in a particular market will charge more than marginal cost for access to her work. See, for example, *id.* at 13-14 (discussing monopoly pricing).

141. By definition, the degree of competition between two products refers to the extent to which a price increase on one of the products would lead consumers to switch to the other product. Economists refer to this degree of competition as the cross-elasticity of demand between the two products. If any increase in the price of one product would lead consumers to switch to the other product, we would say that the products compete perfectly, and are perfect substitutes for one another. As the price difference between two products necessary to convince consumers to switch from one to the other becomes greater, we would say that the second product is becoming a less adequate substitute for the original, and at some point, we would no longer consider the second product a substitute or competitor of the original product at all. See, for example, Scherer, *Industrial Market Structure* at 459, 463, 479-80 (cited in note 140); Mackaay, 13 *Harv. J. L. & Pub. Pol.* at 889 (cited in note 17). Under the incentives-access paradigm, a substitute is a reasonable substitute if its availability will prevent the copyright on the original work from creating an undue deadweight loss.

142. A market consists of those products or versions of a product among which the cross-elasticity of demand is much greater than it is with respect to any product or version of a product outside the market. See, for example, Scherer, *Industrial Market Structure* at 459, 463, 479-80 (cited in note 140). See also *United States v. Du Pont De Nemours & Co.*, 351 U.S. 377, 393-94 (1956). As with the word "reasonable," the incentives-access paradigm defines the word "market" internally. A market consists of all products that are reasonable substitutes for one another, in that allowing competition between such substitutes will limit the author of any one work from having sufficient market power to impose an undue deadweight loss.

143. While I realize that a number of people have devoted considerable time to it, see, for example, Chisum and Jacobs, *Intellectual Property* § 1C (cited in note 43); Frank H. Easterbrook, *Intellectual Property is Still Property*, 13 *Harv. J. L. & Pub. Pol.* 108, 109 (1990); Wendy J. Gordon, *An Inquiry into the Merits of Copyright: The Challenges of Consistency, Consent, and Encouragement Theory*, 41 *Stan. L. Rev.* 1343, 1354-94 (1989); Mackaay, 13 *Harv. J. L. & Pub. Pol.* at 907 (cited in note 17) (explaining that patent and copyright are a species of property right); Tom Palmer, *Intellectual Property: A Non-Posnerian Law and Economics Approach*, 12 *Hamline L. Rev.* 261, 263 (1989) ("[P]atents and copyright are forms, not of legitimate property rights, but of illegitimate state-granted monopoly"), the monopoly versus property debate is largely irrelevant. If we define property as a set of defined legal relationships between various individuals and a thing, even an intangible thing such as a work of authorship, see *Restatement (First) of Property* ch. 1, Introductory Note at 3 (1936), then copyright, patents, trademarks, and other forms of "intellectual property" each define such a set of legal relations, and are therefore property. The fact that they are property, however, tells us nothing, or at least nothing interesting, about the degree of competition present in the markets in which such property is traded. See Edmund W. Kitch, *Patents: Monopolies or Property Rights?*, 8 *Res. L. & Econ.* 31, 33 (1986); Carter, 13 *Harv. J. L. & Pub. Pol.* at 104 (cited in note 22); Mackaay, 13 *Harv. J. L. & Pub. Pol.* at 904-05 (cited in note 17). We cannot, therefore, answer the question of whether copyright creates a monopoly by asserting that it is property, or assume that copyright can either be property or monopoly, but not both. Property is not the opposite of monopoly, but the foundation of it, in that without property, there could be no monopoly.

right owner—for that precise work. Moreover, because everyone has a favorite author, and is willing to pay a little more, drive a little further, or search a little harder for a particular work by a particular author,¹⁴⁴ even a very narrow copyright would grant most authors, and certainly all popular authors, some degree of market power.¹⁴⁵ How much market power copyright will provide an author will depend on how closely copyright permits a later author to duplicate what the relevant consumers consider to be the attraction of the original. The more closely copyright permits a later author to duplicate the attraction of the original, the more limited the market power associated with the work's copyright.¹⁴⁶ The less closely, the more substantial the market power.¹⁴⁷

144. In justifying its decision to recommend extending the term of copyright, the Register of Copyrights argued that such extension was necessary to prevent an author's later works from facing unfair competition from copied versions of the author's earlier works. See H.R. Rep. No. 94-1476 at 133-35 (cited in note 3). Such an argument is unpersuasive. First, we should recognize that to justify extending copyright's duration, the justification must address the marginal benefits of extending copyright's duration. Given that the 1976 Act extended copyright from a term of fifty-six years to a term of life plus fifty years (for non-employee authors), the justification must address the marginal benefits associated with the newly protected period more than fifty-six years after a work is published. Second, we must also recognize that, for dedicated fans of a given author, that author's recent works do not compete with her earlier works. That is the reason popular authors are able to produce a hard-back version of their newest works for a period of time. If the older works actually competed with the newest work, consumers would not purchase the much higher priced hard-back work. Instead, they would purchase the lower priced paper-back works as a substitute for the newer work. While it may be true that new consumers may be indifferent between an author's older and newer works, most of an author's readers will be established, rather than new, readers, during the marginal period at issue, in other words the time period beginning fifty-six years after a work's publication and ending fifty years after the author's death. As a result, even if an author continues to publish new works during this period, competition from earlier works that have fallen out of copyright is not likely to reduce significantly the price the author can charge for her new works. Moreover, very few authors are likely to be publishing new works more than fifty-six years after the publication of their first work.

145. See, for example, William R. Johnson, *The Economics of Copying*, 93 J. Pol. Econ. 158, 161 (1985) ("There are many sellers of originals, each with the monopoly power that stems from the fact that his work is not a perfect substitute for the others"). See also Goldstein, 55 L. & Contemp. Probs. at 84 (cited in note 41) (recognizing that popular authors can price their works at a price significantly above that of paperback versions of the classics).

146. For example, if others could copy the characters and themes from the Star Trek series, so long as they told their own Star Trek stories, their "Star Trek" works would compete almost perfectly with works authorized or created by the copyright holder in the Star Trek series. (As my research assistant points out, Trekkies are "pretty hard-core;" as a result, the imitators would have to duplicate some aspects of the authorized Star Trek works, such as the characters, exactly, and the remaining aspects reasonably closely for Trekkies to accept such imitations as adequate substitutes). For application of such a standard, see *Warner Bros. Pictures, Inc. v. Columbia Broadcasting System, Inc.*, 216 F.2d 945, 950 (2d Cir. 1954) (concluding that the reuse of characters from *The Maltese Falcon* does not infringe *The Maltese Falcon*, so long as the second work uses the characters to tell a new story).

147. See, for example, Chamberlin, *Monopolistic Competition* at 62-67 (cited in note 32); Robinson, *Imperfect Competition* at 50-51 (cited in note 11). A later author could not, perhaps,

As a general principle, as copyright cedes the original author a larger zone of exclusivity by requiring later works to differ more substantially in order to avoid infringement, the market power and the corresponding deadweight loss associated with any given work will increase.¹⁴⁸ At some point, as copyright broadens its scope of protection, the market power such protection creates will become excessive, enabling the author to charge such a high price for access to copies of her work that it imposes an undue deadweight loss and unduly limits access to, or dissemination of, the work.¹⁴⁹ To avoid creating such an undue deadweight loss, the incentives-access paradigm suggests that copyright must allow later authors the freedom to copy those elements, or levels of abstraction, that later works must share before the relevant consumers will consider them to be reasonable substitutes for the earlier work.

As with the chance of coincidental reappearance,¹⁵⁰ the need for access to avoid a risk of undue monopolization will vary depending on the type of work and the nature of the element at issue. As a result, the exact level of abstraction at which, or the elements for which, this need for access dictates a limit to protection also varies. For fictional or fanciful works, courts and commentators typically assume that a competitor will usually need to copy only at a fairly abstract level in order to produce a reasonable substitute for an earlier copyrighted work.¹⁵¹ If copyright, for example, prohibited later authors from copying the detailed elements of an earlier copyrighted work, such protection would prohibit near-verbatim copying of the earlier copyrighted work and would effectively prohibit a later author from retelling the exact same story found in the earlier copyrighted work.¹⁵²

copy the *Star Trek* series, but she could produce her own work concerning a space-faring vessel of exploration.

148. See, for example, Chamberlin, *Monopolistic Competition* at 57-60 (cited in note 32).

149. The method by which courts identify the exact point at which the deadweight loss that providing protection for an element would create becomes undue is, at best, unclear. See text accompanying notes 297-301.

150. See text accompanying notes 125-39.

151. See, for example, *Landsberg v. Scrabble Crossword Game Players, Inc.*, 736 F.2d 485, 488 (9th Cir. 1984) ("Some ideas can be expressed in myriad ways, while others allow only a narrow range of expression. Fictional works generally fall into the first category. The basic idea of a fictional work might be that classic, boy meets girl. This idea can be expressed, as it has been through thousands of years of literature, with infinite variations in setting, sequence of incident, and characterization").

152. See, for example, *id.* at 488. Of course, the later author could entertain us with an identical work and claim that she created her work independently. But, for fictional works, such a claim of independent (re)creation would, in most cases, be unreasonable. See *Lawrence v. Dana*, 15 F. Cases 26, 60 (D. Mass. 1869) ("[I]t is highly improbable that two authors would express their thoughts and sentiments in the same language, throughout a book or treatise of any considerable size"); Landes and Posner, 18 *J. Legal Stud.* at 346 n.30 (cited in note 5).

But such protection would leave the later author free to entertain us by telling some other story or by depicting some other scene.¹⁵³ So long as consumers perceive one entertaining work as reasonably interchangeable with another and are largely indifferent as to which particular entertaining work they purchase, these other stories or scenes will serve as reasonable substitutes for the one the earlier work presents.¹⁵⁴ The availability of such works will, therefore, limit the ability of any given author to raise the price of her entertaining work too far above a competitive level. If she attempted to do so, consumers would simply switch to one of the other works.

As with the chance of coincidental similarities, however, the risk of undue monopolization becomes more significant even for fictional or fanciful works as copyright extends its protection to more abstract levels of the work. At a sufficiently abstract level, certain elements become essential in order for a work to compete in a relevant market.¹⁵⁵ Every cyberpunk novel,¹⁵⁶ for example, must contain those elements that separate cyberpunk from more traditional science fiction, including counterculture heroes, hackers, punk sensibility, and a close, often quasi-symbiotic, relationship between computer technology and humanity in order for a consumer to recognize the novel as

153. See, for example, *Landsberg*, 736 F.2d at 488 ("An author wishing to write yet another work using the 'boy meets girl' idea can choose from a wide range of materials in composing his or her own expression of the idea").

154. The accuracy of this assumption is subject to question. While Professor Goldstein has suggested that it is true, see Goldstein, 55 L. & Contemp. Probs. at 84 (cited in note 41) ("Patent protection may well confer market share and effectively result in monopoly pricing. In copyright, however, a high degree of substitutability invariably obtains. Although we would prefer not to admit it, one author's expression will always be substitutable for another's"), his very next sentence refutes his position, see *id.* (asserting that consumers would switch to another popular author's books priced at \$19.95, or to the classics, priced at \$4.95, if a particular author priced his works at \$75). By recognizing that a popular author can price his works at a level four times that of "paperback reprints of the classics," Professor Goldstein has established that the popular author has substantial market power, in that consumers would pay four times the price of even a good paperback work to obtain the popular author's work.

155. See, for example, *Hoehling*, 616 F.2d at 979 (finding certain scenes indispensable to any treatment of the Hindenburg disaster); *Data East*, 862 F.2d at 209 (detailing the elements essential to a computer karate game); *Frybarger*, 812 F.2d at 530 (finding similar elements in video games to be indispensable to the expression of the idea).

156. Precisely speaking, general categories, such as romance novels, impressionist paintings, and jazz ballet, do not define a relevant market. Rather, such general categories may happen to coincide with a relevant market if the cross-elasticity of demand for all of the works within such a general category is significantly higher than the cross-elasticity of demand between the works in the category and any works outside of the category. But there is no reason why that should generally be the case. Indeed, in some cases, a relevant market may consist of a single work, or the works of a single author, because consumers do not consider any other work to be an adequate substitute for the original(s).

cyberpunk. If consumers, through purchasing decisions that reflect the inadequacy of other forms of entertainment as substitutes for cyberpunk novels, have defined cyberpunk as a distinct market, then a later author will need to "borrow"¹⁵⁷ these defining elements of the cyberpunk genre in order to compete effectively against the original cyberpunk novel, William Gibson's *Neuromancer*.¹⁵⁸ If copyright extended its protection to these defining cyberpunk elements, then it would cede to Gibson control over the entire cyberpunk market. He could prohibit others from producing substitutes for his work(s), or demand a monopolistically priced license for entry into the cyberpunk market. Such protection would give Gibson a substantial degree of market power in his work(s) and would impose a corresponding deadweight loss on consumers. To avoid that result, the incentives-access paradigm suggests that copyright should limit its protection for those elements, and that level of abstraction, in Gibson's work, and for fictional works more generally, that consumers consider necessary before they will accept a later work as a reasonable substitute for the original work in a market. Courts, following that insight, have done so.¹⁵⁹

In contrast to the fairly abstract level at which competitors will need to copy entertaining works in order to compete effectively, competitors will usually need to copy works that do something more than merely entertain at a more detailed level if they are to compete effectively.¹⁶⁰ If a work informs,¹⁶¹ or clothes,¹⁶² or transports,¹⁶³ or

157. Note that while it may be possible for another to reinvent the necessary elements of the cyberpunk genre independently, it is not necessary that the later author do so. The point of this access concern is to ensure that authors can legally copy, and need not create independently, those elements necessary to compete in a relevant market.

158. William Gibson, *Neuromancer* (Ace Books, 1984).

159. See, for example, *Moore v. Columbia Pictures Industries, Inc.*, 972 F.2d 939, 946 (8th Cir. 1992) (holding that the elements necessary for works to belong to the "R&B/hip-hop" genre are not protected); *Nash*, 899 F.2d at 1540 ("If . . . the court should select a high level of abstraction, the first author may claim protection for whole genres of work ('the romantic novel' or, more modestly, any story involving doomed young lovers from warring clans, so that a copyright on *Romeo and Juliet* would cover *West Side Story* too"); *Black v. Gosdin*, 740 F. Supp. 1288, 1292-94 (M.D. Tenn. 1990) (explaining that the subject matter that "constitutes one of the genre's 'stock' themes" must be left unprotected).

160. See, for example, *Harper & Row*, 471 U.S. at 563 ("The law generally recognizes a greater need to disseminate factual works than works of fiction or fantasy"); *Masquerade Novelty v. Unique Industries*, 912 F.2d 663, 669 (3d Cir. 1990) (stating that the goal of copyright law is to ensure the "wide availability of useful designs"); *Cooling Systems*, 777 F.2d at 491 ("[C]opyright law considers factual works to be fundamentally different from more artistic works"); *Landsberg*, 736 F.2d at 488 ("Factual works are different. Subsequent authors wishing to express the ideas contained in a factual work often can choose from only a narrow range of expression").

161. See *Feist*, 499 U.S. at 349-50 (holding that facts are unprotected). See also Robert A. Gorman, *Copyright Protection for the Collection and Representation of Facts*, 76 Harv. L. Rev.

shelters,¹⁶⁴ or just helps us to get something done,¹⁶⁵ any later work will often need to duplicate much of the original before consumers will consider it a substitute for the original. For example, once an individual has learned a particular accounting system, only that particular accounting system will suffice.¹⁶⁶ Such an individual would not consider other accounting systems to be adequate substitutes for the original because of the substantial expense that learning a new accounting system would entail.¹⁶⁷ As a result, if a later author wanted to produce accounting forms to serve consumers who have learned a particular accounting system, her forms would necessarily appear very similar to the accounting forms produced by the creator of the accounting system. If the later author's forms differed in any important respect from the original forms, the retraining such difference would entail would lead many of the relevant consumers to

1569, 1576-84 (1963) (recognizing that the law provides such limited protection, but arguing for more expansive protection under a "sweat of the brow" approach); Robert C. Denicola, *Copyright in Collection of Facts: A Theory for the Protection of Nonfiction Literary Works*, 81 Colum. L. Rev. 516, 530-31 (1981) (same).

162. See, for example, *Bellsouth Advertising*, 999 F.2d at 1442-46; *Folio Impressions*, 937 F.2d at 763; *Whimsicality, Inc. v. Rubie's Costume Co.*, 891 F.2d 452, 455 (2d Cir. 1989); *Carol Barnhart*, 773 F.2d at 419 (holding that a mannequin is a useful article not protected by copyright); *Fashion Originators Guild v. FTC*, 114 F.2d 80, 84 (2d Cir. 1940) (concluding that clothing designs are not protected by copyright), affirmed, 312 U.S. 457 (1941); *Jack Adelman, Inc. v. Sonners & Gordon, Inc.*, 112 F. Supp. 187, 188 (S.D.N.Y. 1934) (holding that a copyright in the drawing of a dress did not protect the dress itself).

163. See, for example, *Brandir Intl., Inc. v. Cascade Pacific Lumber*, 834 F.2d 1142, 1147-48 (2d Cir. 1987) (concluding that a bike rack is a useful article that is not protected by copyright); *Norris Industries v. I.T.T. Corp.*, 696 F.2d 918, 922-24 (11th Cir. 1983) (holding that a wire-spoke hub cap is a useful article that is not protected by copyright); *Muller v. Triborough Bridge Auth.*, 43 F. Supp. 298, 300 (S.D.N.Y. 1942) (holding that the copyright in the drawing of a bridge approach did not protect the bridge approach itself).

164. See, for example, *Fabrica Inc. v. El Dorado Corp.*, 697 F.2d 890, 893-94 (9th Cir. 1983) (explaining that copyright protection does not extend to a carpet sample folder); *Imperial Homes Corp. v. Lamont*, 458 F.2d 895, 899 (5th Cir. 1972) (holding that the copyright in the architectural plans for a home did not protect the home itself). See also 17 U.S.C.A. § 101 (West 1996) (defining an architectural work as the design of a building as embodied in any tangible medium of expression).

165. See, for example, *Baker*, 101 U.S. (11 Otto) at 103-05 (holding that an accounting system explained in a work was unprotected); *Brief English Sys., Inc. v. Owen*, 48 F.2d 555, 556 (2d Cir. 1931) (holding that copyright protection does not extend to the shorthand system); *Griggs v. Perrin*, 49 F. 15, 15-16 (N.D.N.Y. 1892) (same).

166. *Baker*, 101 U.S. (11 Otto) at 103-05.

167. See *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 476-78 (1992); Joseph Farrell and Carl Shapiro, *Dynamic Competition with Switching Costs*, 19 RAND J. Econ. 123, 123 (1988); Paul Klemperer, *Markets with Consumer Switching Costs*, 102 Q. J. Econ. 375, 375-77 (1987). See also Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 Stan. L. Rev. 1329, 1358-69 (1987) (arguing that copyright protection of operating systems is inappropriate because it would generate a risk of undue monopolization).

reject the later forms as substitutes for the original forms.¹⁶⁸ Similarly, if a consumer desires a particular person's telephone number, or information on a particular historical event, that consumer will not usually accept other factual information as a substitute for the desired information.¹⁶⁹ Because of the inadequacy of other factual information as a substitute for the desired information, the relevant market would consist solely of the particular factual information desired. To compete effectively in that market, a later author would have to reproduce the particular facts for which the consumer is looking.¹⁷⁰ If the later author could not, then she could not produce a substitute for the original work in the market, and in essence, could not compete in that market.¹⁷¹

Because consumers in the market for an other-than-entertaining work are likely to require a later work to share a greater level of detail before they will perceive the later work to be a reasonable substitute for the first work, the incentives-access paradigm suggests that courts must circumscribe copyright's protection for other-than-entertaining works more carefully than for entertaining works. Once again, courts have done so.¹⁷² The need to avoid a risk of undue monopolization, thus, imposes a second limit on copyright's scope. By identifying those elements of a work that must reappear in later works in order for consumers to consider the later works reasonable

168. See Farrell and Shapiro, 19 RAND J. Econ. at 123-24 (cited in note 167) (noting that competition for future consumers may limit the ability to exploit such market power); Klemperer, 102 Q. J. Econ. at 376-77 (cited in note 167).

169. See, for example, *Feist*, 499 U.S. at 346-47 (concerning information in a telephone directory); *Financial Information, Inc. v. Moody's Investors Serv., Inc.*, 808 F.2d 204, 207 (2d Cir. 1986) (regarding a financial reporting service); *Hoehling*, 618 F.2d at 978-79 (concerning the historical facts of the Hindenberg disaster).

170. See, for example, *Landsberg*, 736 F.2d at 488-89 (holding that there was no infringement of a copyrighted manual on playing Scrabble because the similarity was no more than necessary to convey Landsberg's winning strategies which the court identified as ideas); *Affiliated Hosp. Prods., Inc. v. Merdel Game Mfg. Co.*, 513 F.2d 1183, 1188-89 (2d Cir. 1975) (holding that the content of a game's rules were unprotected).

171. She could obtain a license, but that would not address the monopolization risk because the license would be monopolistically priced.

172. See, for example, *Baker*, 101 U.S. (11 Otto) at 104-05 (holding that there was no protection for an accounting system explained in a work); *Brandir Intl.*, 834 F.2d at 1146-47 (holding that there was no protection for useful articles); *Rosemont Enters., Inc. v. Random House, Inc.*, 366 F.2d 303, 309 (2d Cir. 1966) (concluding that there is no protection for facts); *Kepner-Tregoe, Inc. v. Carabio*, 203 U.S.P.Q. 124, 131-32 (E.D. Mich. 1979). See also 17 U.S.C. § 102(b) (1994 ed.) (explaining that copyright protection does not extend to any idea); §§ 101, 113(b) (explaining that copyright protection does not extend to any useful article except to the extent it contains artistic elements that can be separated from its utilitarian aspect).

substitutes for the original, copyright limits the market power and the deadweight loss associated with the copyright on any given work.¹⁷³

3. Summary: Access, Ideas, and Expression

The preceding analysis suggests that separating the unprotected aspects of a work from its protected aspects is not a question of identifying the ideas of a work, as a dictionary or everyday usage might define idea. Instead, idea, as copyright uses that term, is simply the label that a court attaches to a particular element, or a particular level of abstraction, after it has decided that copyright should leave that element or level unprotected.¹⁷⁴ As a result, identifying the ideas in a copyrighted work requires neither metaphysics nor epistemology but a rational consideration of the reasons why copyright should, or should not, protect a particular element or level.

In deciding whether to attach the label "expression" or the label "idea" to a particular element or level, courts have relied—sometimes implicitly, other times expressly—on the incentives-access paradigm. If a court perceives a particularly compelling need for access, either to assure the creation of future

173. Thus, while the *Feist* Court recognized that refusing to protect particular facts might permit a copying competitor to appropriate much, if not all, of the value of another's work, the Court felt that the compelling need for future authors to have access to the factual elements of an earlier work justified its result:

It may seem unfair that much of the fruit of the compiler's labor may be used by others without compensation. As Justice Brennan has correctly observed, however, this is not "some unforeseen byproduct of a statutory scheme." It is, rather, "the essence of copyright," and a constitutional requirement. The primary objective of copyright is not to reward the labor of authors, but "to promote the Progress of Science and useful Arts." To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work. . . . This result is neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art.

499 U.S. at 349-50 (citations omitted). See *id.* at 354 (rejecting the "sweat of the brow" doctrine because it creates a monopoly in public domain materials). Other decisions make the access point as well. See, for example, *Hoehling*, 618 F.2d at 974 ("The rationale for this doctrine [that facts are unprotected] is that the cause of knowledge is best served when history is the common property of all, and each generation remains free to draw upon the discoveries and insights of the past").

174. See Jane C. Ginsburg, *No "Sweat"? Copyright and Other Protection of Works of Information After Feist v. Rural Telephone*, 92 Colum. L. Rev. 338, 346 (1992) ("In copyright law, an 'idea' is not an epistemological concept, but a legal conclusion prompted by notions—often unarticulated and unproven—of appropriate competition. Thus, copyright doctrine attaches the label 'idea' to aspects of works which, if protected, would (or, we fear, might) preclude, or render too expensive subsequent authors' endeavors"). See also *E.F. Johnson Co. v. Uniden Corp. of America*, 623 F. Supp. 1485, 1503 (D. Minn. 1985) (leaving some elements unprotected, but protecting others depending on the need for access to the elements).

works or to minimize the risk of undue monopolization, then the court will usually identify the element as an unprotected idea. On the other hand, if a court fails to perceive a compelling need for access, then the court will usually identify the element as a protected expression. The following Section continues exploring the pervasive influence of the incentives-access paradigm on copyright by examining the degree and the type of similarity copyright requires a plaintiff to prove in order to demonstrate an infringing appropriation.

B. Defining the Similarity Necessary to Establish Infringement

Once a court has separated a work's protected expression from its unprotected ideas, a plaintiff must then demonstrate that the allegedly infringing work is too similar to the expression of the copyrighted work.¹⁷⁵ Historically, whether a later work was too similar turned on two inquiries. First, the plaintiff had to demonstrate that particular elements in the later work were too similar to the corresponding expressive elements of the plaintiff's copyrighted work. Second, the plaintiff also had to demonstrate that because of these similarities the later work would interfere with the plaintiff's "legally protected interest" in her copyrighted work.¹⁷⁶ I will refer to the first similarity issue as the "degree of similarity" issue, and the second as the "type of similarity" issue. The following Subsections explore, in turn, the influence of the incentives-access paradigm on each of these two similarity issues.

1. The Degree of Similarity Necessary to Establish an Infringement

With respect to the degree of similarity sufficient to establish infringement, the two access concerns, creation of future works and dissemination of existing works, that have guided the separation of ideas and expression have led to a parallel rule in determining the degree of similarity copyright requires. Specifically, this parallel rule varies the degree of similarity required to establish infringement depending upon the number of ways in which an idea may be expressed. If there are many ways to express an idea, then courts will apply a

175. See the cases cited in note 76.

176. As Judge Frank expressed it in *Arnstein v. Porter*, "[t]he question, therefore, is whether defendant took from plaintiff's work so much of what is pleasing to the [target audience] that defendant wrongfully appropriated something which belongs to the plaintiff." 154 F.2d at 473. See also *Peter Pan Fabrics*, 274 F.2d at 489 (explaining that the test is whether "the ordinary observer, unless he set out to detect the disparities, would be disposed to overlook them, and regard [the two works'] aesthetic appeal as the same").

broad similarity standard, usually denominated "substantial similarity," to determine whether particular elements found in the later work are too similar to the corresponding expressive elements of the earlier work. If there are fewer ways to express the idea, courts will require a closer degree of similarity, perhaps near-exact similarities such as literal duplication and close paraphrasing, to establish infringement.¹⁷⁷ If there are so few ways to express an idea that an author could copyright each of the available forms and thereby "exhaust all possibilities of future use of the [idea]," then some courts will require exact duplication to establish infringement.¹⁷⁸ Others will find that the idea and the expression merge and will not protect such a work against even exact duplication.¹⁷⁹

Because courts have relied on the incentives-access paradigm to identify a work's ideas, the paradigm plays an implicit but central role in applying the varying similarity standard. Specifically, it identifies the relevant idea against which a court should measure the number of available forms of expression.¹⁸⁰ A particular jeweled bee pin, for example, might be only one of many ways to express the idea if the court identifies the relevant idea as jewelry. Yet, that same pin might be the only way, or one of only a very few ways, to express the idea if the court identifies the relevant idea as a jewel-encrusted gold

177. See *Concrete Machinery*, 843 F.2d at 606-07; *Educational Testing Servs. v. Katzman*, 793 F.2d 533, 539 (3d Cir. 1986); *Atari*, 672 F.2d at 617.

178. See *Krofft*, 562 F.2d at 1168; *Continental Cas. Co. v. Beardsley*, 253 F.2d 702, 704-06 (2d Cir. 1958).

179. See *Herbert Rosenthal Jewelry*, 446 F.2d at 742 ("The difficulty, as we have noted, is that on this record the 'idea' and its 'expression' appear to be indistinguishable. . . . When the 'idea' and its 'expression' are thus inseparable, copying the 'expression' will not be barred, since protecting the 'expression' in such circumstances would confer a monopoly of the 'idea' upon the copyright owner"); *Morrissey v. Proctor & Gamble Co.*, 379 F.2d 675, 678-79 (1st Cir. 1967). As even the *Herbert Rosenthal Jewelry* court recognized, this aspect of merger might be better restated as a finding that the works are no more similar than necessary given a common unprotected element. See 446 F.2d at 742 ("There is no greater similarity between the pins of the plaintiff and the defendants than is inevitable from the use of jewel-encrusted bee forms in both"). See also *Herbert Rosenthal Jewelry Corp. v. Honora Jewelry Co., Inc.*, 509 F.2d 64, 66 & n.1 (2d Cir. 1974) (finding that two jeweled turtle pins were no more similar than necessary given the common idea).

180. As with the levels-of-abstraction approach, the range-of-expression approach is not self-contained—it cannot separate idea from expression on its own—because it fails to define the relevant idea against which a court should measure the number of forms of expression. In the absence of some external guide, a court using the approach could determine that the element, or level of abstraction, copied represents one of many ways to express one idea, while it represents one of only a very few ways to express some other idea; yet the court would be left uncertain as to which idea is the correct one to use.

pin shaped to depict realistically a bee.¹⁸¹ By identifying the level of abstraction copyright should leave unprotected,¹⁸² the incentives-access paradigm identifies which of these two possible levels of abstraction is the relevant "idea" for purposes of applying the varying similarity standard. Once the incentives-access paradigm has identified the relevant idea, a court can readily determine the number of forms of expression available¹⁸³ and the corresponding degree of similarity that copyright requires in order to find an infringing appropriation.¹⁸⁴

181. See *Herbert Rosenthal Jewelry*, 446 F.2d at 742 (reasoning that given that the idea is of a jewel-encrusted gold pin in the shape of a bee, "the 'idea' and its 'expression' appear to be indistinguishable").

182. As discussed, the idea would be the level where the chance of independent creation or the risk of undue monopolization became significant. See text accompanying note 174. See also *Herbert Rosenthal Jewelry*, 446 F.2d at 742 (discussing the size of the market).

183. For example, the plaintiff in *Eden Toys*, 675 F.2d at 499, alleged that the defendant had infringed its copyright in a stuffed toy snowman. There were some similarities between the two toys, and strong circumstantial evidence of copying, but the court believed the similarities between the two toys were no more than were inevitable given that both realistically depicted snowmen. *Id.* at 500 (explaining that any similarity between the two toys appeared "to result solely from the fact that both are snowmen"). If the court could somehow determine that copyright did not protect the plaintiff's subject matter selection at the level of "a realistic snowman," then the varying similarity standard would provide a ready answer to the case. Because the similarities were no more than inevitable given the shared idea of a realistic stuffed toy snowman, no infringement would result. To determine the correct level of abstraction at which copyright should begin protecting the plaintiff's work, a court would need to evaluate the need for access to the work's subject matter selection at varying levels of abstraction. Given that the snowman is a popular winter character readily found in the preexisting public domain, the court concluded that the chance of coincidental re-creation became sufficiently high at the level of "realistic snowman" to deny protection for that level of abstraction. See *id.* ("For countless generations, children and the young at heart have built snowmen"). To do otherwise would require any author who later produced a snowman to rely on the expensive and uncertain independent creation defense to escape liability for infringement, or to obtain a license from each prior snowman depicter, which would thereby chill later authors' ardor for pursuing their own inspirations. See text accompanying notes 103-24.

184. In addition to identifying the correct idea, application of the varying-degree-of-similarity standard also requires recognition that the number of possible, non-infringing versions will depend on the similarity standard applied. As the similarity standard broadens, any given work will receive a broader circle of protection that later works must avoid in order to avoid an undue chance of an infringement finding. If a work must have a certain degree of similarity for consumers to consider it part of the market, then the broader the circle of exclusion surrounding each protected work, the fewer the total number of works that will fit within the market without infringing each other. For example, if a consumer is looking for a number between one and two, and any number between one and two will do, then there are an infinite number of ways of expressing such a number. However, if applying the substantial similarity standard would preclude any later author from expressing a number within 0.25 of an existing expression of such a number, then there are, at best, only four numbers that authors can express within the market without an undue risk of infringing each other. If the first author, for example, "expresses" the number 1.05, then later authors must avoid expressing a number within 0.25 of 1.05, and as a result, must express a number greater than 1.30, and less than 2.00, to fit within the market. If the second author expresses the number 1.31, then later authors must avoid expressing a number within 0.25 of either 1.05 or 1.31, and as a result, must express a number greater than 1.56, and less than 2.00, to fit within the market. If a third author expressed the

In operation, the degree-of-similarity standard serves to reinforce the separation of ideas and expression that the incentives-access paradigm dictates. If protecting a particular element, or a particular level of abstraction, would threaten the creation of future works, or would create a risk of undue monopolization, then copyright will declare that element or level an unprotected idea.¹⁸⁵ If there is only one form, or at best a very few forms, of expressing that idea, then protecting any one form would necessarily create a similar threat to future works or a similar risk of undue monopolization.¹⁸⁶ Assuming that a need for access would justify excluding protection for a work's ideas, then the same need for access would also justify a refusal to extend protection to any one form of expression if such protection would create a similar threat to access.¹⁸⁷ As the number of forms

number 1.57, and a fourth author expressed the number 1.83, then no more authors could enter the market without running an undue risk of an infringement finding because, whatever number between one and two they expressed, it would necessarily come within 0.25 of one of the existing "works." If, on the other hand, a court applied a near-literal similarity standard to determine infringement, we could liken such a standard to precluding any later author from expressing a number within 0.05 of a previously expressed number. Given such a similarity standard, there would be as many as twenty-one numbers that authors could express within the market without infringing each other. While I realize, of course, that numbers would neither be original, nor expression, within the meaning of copyright law, varying similarity standards have a similar effect on the number of works that can fit within each market. As the similarity standard broadens, fewer works will be able to fit within the range of characteristics necessary to compete in a market without becoming too similar. As a result, the number of forms of expressing an idea and the degree of similarity required are an interactive inquiry in that the number of forms will depend upon the similarity standard chosen.

185. See Part III.A.

186. See *Kregos v. Associated Press*, 937 F.2d 700, 705 (2d Cir. 1991) ("Determining when the idea and its expression have merged is a task requiring considerable care: if the merger doctrine is applied too readily, arguably available alternative forms of expression will be precluded; if applied too sparingly, protection will be accorded to ideas"); *Herbert Rosenthal Jewelry*, 446 F.2d at 742; *Morrissey*, 379 F.2d at 678-79; *Continental Cas.*, 253 F.2d at 704-06; *Crume v. Pacific Mut. Life Ins. Co.*, 140 F.2d 182, 184-85 (7th Cir. 1944) ("In the instant situation there is no room for the skill of the mechanic or artisan in utilizing the plan or the method disclosed. Its use, to which the public is entitled, can be effected solely by the employment of words descriptive thereof. In our view, where the use can be effected only in such manner, there can be no infringement even though the plan or method be copied. We realize that such a view leaves little, if any, protection to the copyright owner; in fact, it comes near to invalidating the copyright. This situation, however, results from the fact that the practical use of the art explained by the copyright and lodged in the public domain can be attained solely by the employment of language which gives expression to that which is disclosed").

187. As Chief Judge Aldrich has explained:

When the uncopyrightable subject matter is very narrow, so that "the topic necessarily requires," if not only one form of expression, at best only a limited number, to permit copyrighting would mean that a party or parties, by copyrighting a mere handful of forms, could exhaust all possibilities of future use of the substance. In such circumstances it does not seem accurate to say that any particular form of expression comes from the subject matter. However, it is necessary to say that the subject matter would

in which an author can express an idea increases, the ability to express the idea in some other way both reduces the chance that someone will happen on the exact same form as the original author without copying and ensures that future authors will be able to compete effectively with the original work by creating one of the other forms.¹⁸⁸ The incentives-access paradigm suggests, therefore, that copyright can protect a work that represents one of many forms of expressing an idea more extensively than it can protect a work that represents only one of a few forms of expression. As a general principle, the more forms of expression, the more extensive the protection copyright can provide without unduly threatening the need for access to the work.¹⁸⁹

Of course, even if there are a great number of forms in which a particular idea may be expressed, copyright must retain some limit on the degree of similarity that will support an infringement finding. If, for example, copyright permitted a finding of remote similarity between a later work and the expressive elements of an earlier copyrighted work to support an infringement finding, such a broad similarity standard would itself threaten access, even if a court had properly identified and denied protection to a work's ideas. Coincidence alone would often result in such remote similarities, and such remote similarities would, in any event, often be necessary for consumers to consider the later work a reasonable substitute for an earlier copyrighted work. A finding of infringement based upon such

be appropriated by permitting the copyrighting of its expression. We cannot recognize copyright as a game of chess in which the public can be checkmated.

Morrissey, 379 F.2d at 678-79 (citations omitted). See also *Kepner-Tregoe, Inc. v. Leadership Software, Inc.*, 12 F.3d 527, 533 (5th Cir. 1994) ("[W]hen an idea can be expressed in very few ways, copyright law does not protect that expression, because doing so would confer a de facto monopoly over the idea. In such cases idea and expression are said to be merged"); *Toro Co. v. R & R Products Co.*, 787 F.2d 1208, 1212 (8th Cir. 1986) (same).

188. Both are truisms assuming that courts define the unprotected elements of a work, its ideas, by examining the need for access to preserve independent creation and reasonable competition. See *Dymow*, 11 F.2d at 691 ("[I]t is as near the whole truth as generalization can usually reach that, if the same idea can be expressed in a plurality of totally different manners, a plurality of copyrights may result, and no infringement will exist"). See also *Toro*, 787 F.2d at 1212 (finding no merger because the variety of parts numbering systems available would prevent a copyright on one such system from monopolizing the idea of another parts numbering system).

189. See, for example, *Krofft*, 562 F.2d at 1168 ("[T]he scope of copyright protection increases with the extent expression differs from the idea"); *Atari*, 672 F.2d at 617 ("As a work embodies more in the way of particularized expression, it moves farther away from the bee pin in *Kalpakistan*, and receives broader copyright protection. At the opposite end of the spectrum [from the *Kalpakistan* bee] lie the 'strongest' works in which fairly complex or fanciful artistic expressions predominate over relatively simplistic themes and which are almost entirely products of the author's creativity rather than concomitants of those themes"); *Kepner-Tregoe*, 203 U.S.P.Q. at 131-32.

remote similarity would, therefore, interfere unduly with the creation of future works or create a risk of undue monopolization. To avoid such a result, copyright should ensure that the similarity standard works hand-in-hand with the identification of ideas, and the resulting range of expression available, to ensure that later authors have adequate freedom both to pursue their own creativity and to create reasonable substitutes for an earlier copyrighted work. The degree-of-similarity standard reflects this principle and tailors copyright to provide a degree of protection that reflects the need for access.¹⁹⁰

In addition to varying the degree of similarity copyright will require to establish an infringing appropriation, the incentives-access paradigm also suggests that copyright should define particular similarity standards, such as "substantial similarity," not simply by the number of musical notes or literary elements two works share, but by the risk that a finding of infringement based upon any given similarities would unduly threaten a need for access.¹⁹¹ The sharing of an eight note sequence in an earlier and later work may, for example, implicate a need for access in one case but not in another.¹⁹² If the

190. See, for example, *Landsberg*, 736 F.2d at 488 ("One consequence of the policy in favor of free use of ideas is that the degree of substantial similarity required to show infringement varies according to the type of work and the ideas expressed in it"). As discussed, see text accompanying notes 125-29, 160-72, the need for access is usually thought to be greater for other-than-entertaining works. To ensure such access, courts have adopted a more narrow similarity standard for such works. See *Harper & Row*, 471 U.S. at 563; *Cooling Systems*, 777 F.2d at 491-92 (explaining that for factual works, "similarity of expression may have to amount to verbatim reproduction or very close paraphrasing before a factual work will be deemed infringed" (quoting *Landsberg*, 736 F.2d at 488)); *Affiliated Hosp. Prods.*, 513 F.2d at 1188-89 (holding that near-identity is required to establish infringement of a pamphlet describing game rules); *Continental Cas.*, 253 F.2d at 705-06 (holding that near-identity is required to establish infringement of insurance forms); *Miner v. Employers Mutual Liability Insurance Co.*, 229 F.2d 35, 35-36 (D.C. Cir. 1956) (holding that near-identity is required to establish infringement of an insurance policy); *Chamberlin v. Uris Sales Corp.*, 150 F.2d 512, 513 (2d Cir. 1945); *Kepner-Tregoe*, 203 U.S.P.Q. at 131-32.

191. See, for example, *Cooling Systems*, 777 F.2d at 491 ("*Landsberg's* principle—that the fewer the methods of expressing an idea, the more the allegedly infringing work must resemble the copyrighted work in order to establish substantial similarity—must govern"). See also *Selle*, 741 F.2d at 903-04 ("An important factor in analyzing the degree of similarity of two compositions is the uniqueness of the sections which are asserted to be similar"); *Franklin Mint*, 575 F.2d at 66 (defining the types of similarities copyright requires, the court noted that "conventions in ornithological art . . . tend to limit novelty in depictions of the birds"); *Haas v. Leo Feist*, 234 F. 105, 107 (S.D.N.Y. 1916) (defining the type of similarity copyright requires to establish copying, Judge Hand looked for "parallelism which seems to my ear to pass the bounds of mere accident").

192. Compare *Arnstein*, 82 F.2d at 277 (stating that the identity between a sequence of twelve notes in two works did not establish substantial similarity when "the seven notes available do not admit of so many agreeable permutations that we need be amazed at the re-appearance of old themes"), with *Bright Tunes Music Corp. v. Harrisongs Music, Ltd.*, 420 F.

chance of the sequence's coincidental reappearance is high, or if repetition of the sequence is necessary to produce a reasonable substitute for the original, then the incentives-access paradigm suggests that copyright should not consider the similarities substantial.¹⁹³ If, on the other hand, copying is far more likely than coincidence as an explanation for the sequence's reappearance, and a later author can produce an adequate substitute without repeating the sequence, then a finding of infringement based upon the similarities would not unduly threaten a need for access. In such a case, the incentives-access paradigm would suggest that copyright may consider such factual similarities sufficiently substantial to establish infringement, and courts have followed the paradigm's lead.¹⁹⁴

Like ideas then, substantial similarity is not simply a question of what the average person would consider substantially similar in everyday life. Instead, it is a legal standard that courts have defined

Supp. 177, 178 (S.D.N.Y. 1976) (holding that the combination of a three note sequence followed by a five note sequence established infringement where the pattern was "highly unique"). See also *Baxter*, 812 F.2d at 424 (explaining that the copying of even six notes can establish infringement).

193. See *Harper & Row*, 471 U.S. at 563 (discussing that whether a later work is too similar to a copyrighted work depends upon "[t]he extent to which one must permit expressive language to be copied, in order to assure dissemination of the underlying facts" (quoting Robert A. Gorman, *Fact or Fancy? The Implications for Copyright*, 29 J. Copyright Soc. 560, 561 (1982))); *Kregos v. Associated Press*, 3 F.3d 656, 664 (2d Cir. 1993) (discussing the similarities between statistics presented by two pitching forms and deciding it was not sufficient to establish infringement given the "limited number of statistics generally considered outcome-predictive by those familiar with the sport"); *Moore*, 972 F.2d at 946 (noting the similarities attributable to the two songs "being from the same 'R&B/hip-hop' genre"); *Baxter*, 812 F.2d at 425 ("Certainly, evidence that the sequence in question is found in other works would be admissible to rebut an inference of copying; such evidence demonstrates that the sequence is so common that the probability of independent, coincidental creation was high"); *Berkic*, 761 F.2d at 1293-94 (noting that similarities could not establish infringement where they relate to elements that "are among the very staples of modern American literature and film"); *Wickham v. Knoxville Intl. Energy Exposition, Inc.*, 739 F.2d 1094, 1097 (6th Cir. 1984) (noting that the similarities between two structures resulted from the common use of the idea of a tower with a sphere or saucer-like structure at the top and was not sufficient, therefore, to find substantial similarity); *Durham Industries*, 630 F.2d at 916 (noting that the similarities attributable to "standard doll features" were not actionable); *Chamberlin*, 150 F.2d at 513 (explaining that there is no infringement where similarities "derive from the fact that [two works detailing backgammon rules] were necessarily drawn from the same source"); *Taylor v. Newton-John*, 1987 U.S. Dist. LEXIS 4084, at *12 (S.D.N.Y. 1987) (explaining that where similarities consisted of "a series of commonplace phrases," a summary judgment finding no copyright infringement was appropriate).

194. See *Harper & Row*, 471 U.S. at 565-66 (noting that direct quotations amounted to more than 13% of the allegedly infringing work, and suggesting that this fact weighed against fair use); *Fisher-Price, Inc v. Well-Made Toy Manufacturing Corp.*, 25 F.3d 119, 124 (2d Cir. 1994) (finding that the defendant's doll infringed the plaintiffs, the court stated that "[t]hese dolls do not merely share features that are common to all dolls; they contain virtually identical expressions of those features"); *Selle*, 741 F.2d at 903-05; *Krofft*, 562 F.2d at 1166-67, 1167 n.9 (finding infringement of the plaintiffs work because "[t]he use of the basic idea of the works does not inevitably result in such similarities").

by referring to the underlying policy concerns reflected by the incentives-access paradigm.¹⁹⁵ In any given case, a court will consider particular factual similarities sufficient¹⁹⁶ to establish an infringing appropriation only if such a result would not unduly threaten access. If the possibility of such an infringement finding would impair the production of future works, or would risk undue monopolization, then a court will find the similarities insufficient to establish the requisite degree of similarity.

2. The Type of Similarity Required to Establish an Infringing Appropriation

In addition to showing that particular elements in the later work are too similar to the earlier work's corresponding expressive elements, the plaintiff also has to demonstrate that the defendant's actions have interfered with the plaintiff's legally protected interest in her copyrighted work.¹⁹⁷ The question here is not whether the defendant has copied expression from the plaintiff's work, but whether the context or manner in which the defendant has used what she has taken infringes the plaintiff's rights.¹⁹⁸ As a general rule today, the

195. As Judge Newman explained:

The "substantial similarity" that supports an inference of copying sufficient to establish infringement of a copyright is not a concept familiar to the public at large. It is a term to be used in a courtroom to strike a delicate balance between the protection to which authors are entitled under an act of Congress and the freedom that exists for all others to create their works outside the area protected against infringement.

Warner Brothers, 720 F.2d at 245.

196. Note that while such similarities would be sufficient to support such a finding, they do not require or dictate such a finding. See, for example, *Original Appalachian Artworks, Inc. v. Toy Loft, Inc.*, 684 F.2d 821, 829 (11th Cir. 1982). The trier of fact may choose to credit evidence of independent re-creation or a common source, despite such similarities. See, for example, *Morrison v. Solomons*, 494 F. Supp. 218, 221-22 (S.D.N.Y. 1980) (finding no infringement based upon the defendant's testimony of independent creation despite similarities between the works).

197. See *Arnstein*, 154 F.2d at 472 ("Assuming that adequate proof is made of [actual] copying, that is not enough; for there can be 'permissible copying,' copying which is not illicit").

198. *Arnstein*, for example, required the copyright holder to establish that the "defendant took from plaintiff's works so much of what is pleasing to the ears of [the target audience] that defendant wrongfully appropriated something which belongs to the plaintiff." 154 F.2d at 473. In *Peter Pan Fabrics*, Judge Learned Hand asked whether the two works as a whole were so similar that "the ordinary observer, unless he set out to detect the disparities, would be disposed to overlook them, and regard their aesthetic appeal as the same." 274 F.2d at 489. However, that case dealt with relatively simple works of visual arts, specifically fabric designs. As a result, it is unclear whether Judge Hand was referring to a separate inquiry addressing the scope of an author's protected interest, or simply stating that the expression in this type of work lies in the arrangement of shapes, colors, and designs as a whole, and that the second work must be too similar to the expression of the first work, that is the appearance of the first work as a whole, to determine infringement.

author's legally protected interest extends "to any lawful use of their property, whereby they may get a profit out of it."¹⁹⁹ Because allowing unlicensed use of an author's expression would deprive an author of a potential source of licensing revenue, essentially any reuse of an author's expression would, today, interfere with the author's legally protected interest.²⁰⁰ As a result, under present copyright law, if a plaintiff can demonstrate that a defendant has taken expression from the plaintiff's copyrighted work, then that showing will establish infringement almost without regard to the context or manner in which the defendant reuses the plaintiff's expression. Yet, that has not always been the rule.

In the nineteenth century, an author's legally protected interest extended only to the right to multiply copies of her work.²⁰¹ As a result, another's reuse of an author's expression would interfere with the author's legally protected interest only if, given the context or manner of the reuse, the reuse would displace or supersede demand for copies of the author's original work in its original form.²⁰² Thus, in *Stowe v. Thomas*,²⁰³ Harriet Beecher Stowe alleged that Thomas had infringed her copyright by translating her copyrighted work, *Uncle Tom's Cabin*, into German. In language that foreshadowed the

199. *Benny v. Loew's, Inc.*, 239 F.2d 532, 534 (9th Cir. 1956), affirmed sub nom *Columbia Broadcasting System, Inc. v. Loew's, Inc.*, 356 U.S. 43 (1958).

200. See *American Geophysical Union v. Texaco, Inc.*, 60 F.3d 913, 922 (2d Cir. 1994) (stating that any copying of another's work that allows one to earn a profit weighs against a finding of fair use); *Twin Peaks Prods., Inc. v. Publications Intl., Ltd.*, 996 F.2d 1366, 1371-73 (2d Cir. 1993) (finding that a book about a television series infringed the copyrights in the audiovisual works that constituted the television series); *Rogers v. Koons*, 960 F.2d 301, 310 (2d Cir. 1992) (making a fine art statue using a cheap, kitschy postcard as a model constituted infringement); *Horgan v. MacMillan*, 789 F.2d 157, 162-63 (2d Cir. 1980) (suggesting that a book about ballet could infringe a copyright in the ballet's choreography); *Basic Books, Inc. v. Kinko's Graphics Corp.*, 758 F. Supp. 1522, 1535 (S.D.N.Y. 1991) (finding infringement where the defendant was making a profit repackaging the plaintiff's copyrighted works). See Goldstein, 55 L. & Contemp. Probs. at 85 (cited in note 41) ("Putting these cautionary observations to the side, I think it is historically accurate to say that, in general, Congress has given copyright owners rights to every market in which consumers derive value from their works and in which transaction costs do not stand in the way of negotiated payments").

201. *Greene v. Bishop*, 10 F. Cases 1128, 1133-34 (D. Mass. 1858) ("[T]he only property . . . which the law gives him under such circumstances [when a work has been published] is the exclusive right to multiply the copies of that particular combination of characters which exhibits to others the ideas intended to be conveyed").

202. See *Perris*, 99 U.S. (9 Otto) at 675-76 (holding that the defendant's map of Philadelphia was not an infringement of the plaintiff's map of New York City because "[the two maps] do not convey the same information"). See also *Gray*, 10 F. Cases at 1038 (stating that one factor to consider in determining whether a use is unfair is whether the allegedly infringing work will supersede the demand for the original); *Folsom*, 9 F. Cases at 348 (same); Kaplan, *Unhurried View* at 17 (cited in note 12); Jaszi, 1991 Duke L. J. at 472 (cited in note 138) ("[A]t the outset the courts treated non-identical imitations as meritorious new productions").

203. 23 F. Cases 201 (D. Pa. 1853), superseded by statute, Act of July 8, 1870, ch. 230, § 86, 16 Stat. 198 (granting the authors the exclusive translation right).

Supreme Court's adoption of the idea-expression dichotomy later in the century,²⁰⁴ the court rejected Stowe's claim.²⁰⁵ Once she has published her work, the court wrote, "the author's exclusive property in a literary composition or h[er] copyright, consists only in a right to multiply copies of h[er] book, and enjoy the profits therefrom, and not in an exclusive right to h[er] conceptions and inventions, which may be termed the essence of [the] composition."²⁰⁶ Thomas's German translation may have limited sales of the authorized translation and may have limited Stowe's returns on her authorship investment, "but in no correct sense can it be called a copy of her book."²⁰⁷ Even if Thomas had, in some sense, taken the expression of Stowe's work, he had translated what he took into German. Because he had translated what he had taken into German, Thomas's reuse would not supersede or displace demand for copies of Stowe's English-language original. Thomas had not, therefore, interfered with Stowe's legally protected interest in her work, and did not infringe Stowe's copyright.²⁰⁸

Nor was *Stowe* unusual for its time. Courts in the nineteenth century consistently required a plaintiff to show that, given the context or manner in which the defendant reused material from the plaintiff's copyrighted work, the defendant's reuse would supersede or displace demand for copies of the plaintiff's original.²⁰⁹ If a later

204. Compare *Stowe*, 23 F. Cases at 206 (explaining that before publication, the author owns even his own ideas. After publication, "[s]uch an appropriation becomes impossible, and is inconsistent with the object of publication. The author's conceptions have become the common property of his readers, who cannot be deprived of the use of them, nor of their right to communicate them to another clothed in their own language"), with *Baker*, 101 U.S. (11 Otto) at 103 ("The very object of publishing a book on science or the useful arts is to communicate to the world the useful knowledge which it contains. But this object would be frustrated if the knowledge could not be used without incurring the guilt of piracy of the book").

205. *Stowe*, 23 F. Cases at 208.

206. *Id.* at 207.

207. *Id.* at 208. See also *Story v. Holcombe*, 23 F. Cases 171, 175 (D. Ohio 1847) ("[A] fair abridgment, though it may injure the original, is lawful").

208. *Stowe*, 23 F. Cases at 208. See also *Shook v. Rankin*, 21 F. Cases 1335, 1337 (N.D. Ill. 1875) (finding that one translation of a French-language play did not infringe another translation); Edward Samuels, *The Idea-Expression Dichotomy in Copyright Law*, 56 Tenn. L. Rev. 321, 336-37 & n.66 (1989).

209. See *Perris*, 99 U.S. (9 Otto) at 675-76; *Sampson & Murdock Co. v. Seaver-Radford Co.*, 140 F. 539, 542 (1st Cir. 1905); *Story*, 23 F. Cases at 175 (finding that part of the defendant's work that amounted to "a fair abridgment" lawful, and that part that could not be considered such an abridgment unlawful); *Webb v. Powers*, 29 F. Cases 511, 517 (D. Mass. 1847); *Gray*, 10 F. Cases at 1038-39 (comparing extracts taken for the "bona fide" purpose of criticism, with extracts taken "to supersede the original work under the pretense of a review"). See also *White-Smith Music Co. v. Apollo Co.*, 209 U.S. 1, 17-18 (1908) (holding that a music roll for a player piano is not a copy and is not therefore an infringement of copyright in the musical works embodied on the roll), superseded by statute as stated in *Apple Computer*, 714 F.2d at 1248;

author were to translate, abridge, or otherwise rework the original, such action would not infringe the copyright in the original so long as the later work did not act primarily to displace demand for copies of the original.²¹⁰ Thus, a defendant²¹¹ could copy the style and characteristics of a copyrighted map of New York in preparing a map of Philadelphia, or could copy descriptions of flowers from a copyrighted dictionary to produce a book of poetry, because the defendant's work would, in either case, not substitute for the plaintiff's work.²¹² Such "derivative" works may have copied expression from the original, but as long as the later author had actually reworked the original and thereby created a "new" work, a court would not find infringement.²¹³

Through the late nineteenth and early twentieth centuries, Congress systematically limited the freedom of others to create such derivative works, by granting authors an ever-expanding right to con-

Emerson, 8 F. Cases at 622, 625 ("A copy is one thing, an imitation or resemblance another. There are many imitations of Homer in the Aeneid; but no one would say that the one was a copy from the other." While a second work need not be an exact and literal copy to infringe, only servile or evasive imitations will infringe).

210. See *Perris*, 99 U.S. (9 Otto) at 675-76; *Sampson & Murdock*, 140 F. at 542; *Stowe*, 23 F. Cases at 208; *Story*, 23 F. Cases at 174-75; *Webb*, 29 F. Cases at 518-19 (explaining that even though it copied an expression, a later work did not infringe because the later work was created "with a view to make it less expensive and to circulate among a different class of readers, rather than be a substitute with the same class"). See also *Mazer*, 347 U.S. at 218 ("The copyright protects originality rather than novelty or invention—conferring only 'the sole right of multiplying copies'"); *Daly v. Palmer*, 6 F. Cases 1132, 1136-37 (D.N.Y. 1868) (finding that the defendant infringed by incorporating an original scene from another's play into his own play; when the defendant argued that he had adapted the original and ought not therefore be considered an infringer, the court rejected his argument, distinguishing cases permitting abridgments or digests on the grounds that the purpose of such reworkings is "distinct from that of the work from which it was taken"); *Lawrence*, 15 F. Cases at 59-60; *Story*, 23 F. Cases at 173 (stating that a reviewer reaches the limit of permissible copying if she copies so much that she begins "to supersede the original book"); *Folsom*, 9 F. Cases at 348 ("In some cases, a considerable portion of the materials of the original work may be fused, if I may use that expression, into another work, so as to be undistinguishable in the mass of the latter, which has other professed and obvious objects, and cannot be fairly treated as a piracy"). But see *Gilmore v. Anderson*, 38 F. 846, 849 (S.D.N.Y. 1889) ("The work of [the plaintiff] was written for a presidential campaign, and that of [the defendant] for young persons; and this difference of purposes is relied upon as justification [for the copying]. But the author's right is absolute when perfected, and the purpose of an invasion nowhere appears to be made an excuse for it"); *Falk v. Donaldson*, 57 F. 32, 36-37 (S.D.N.Y. 1893) ("The measure of complainant's rights is not limited by the mere fact that the lithograph would not displace the photograph in the market").

211. As one court noted, an abridgment will reduce demand for the original to a certain extent. See *Story*, 23 F. Cases at 172-73. The question, therefore, must be one of degree, balancing the extent to which consumers will perceive a later work as a substitute for the earlier work and the amount of "lahor and exercise of judgment" the later work required. *Id.* at 173-74.

212. See *Perris*, 99 U.S. (9 Otto) at 676-77; *Webb*, 29 F. Cases at 517-19.

213. See *Perris*, 99 U.S. (9 Otto) at 675-76; *Sampson & Murdock*, 140 F. at 542; *Webb*, 29 F. Cases at 519; *Stowe*, 23 F. Cases at 208; *Story*, 23 F. Cases at 175; *Jaszi*, 1991 Duke L. J. at 472-74 (cited in note 138).

trol such reworkings.²¹⁴ Yet, even after Congress acted to prohibit certain derivative uses of a copyrighted work, at least some courts continued to limit the author's protected interest with respect to derivative uses to what might be termed "nontransformative" derivative uses. In these cases, a court would find infringement of the plaintiff's derivative rights only if the defendant had taken expression from the plaintiff's work and used it to create a derivative work that simply "reproduced" the plaintiff's work in a new language or medium of distribution.²¹⁵ Under this standard, courts would permit individuals to take expression from a copyrighted work so long as they used it to create their own work, whose appeal differed from that of the underlying work. While the question of how much the appeal of the defendant's work had to differ from the appeal of the underlying work in order to avoid an infringement finding presented some difficulties, at least some courts would find no infringement, despite a defendant's taking of expressive elements from the plaintiff's work, in cases where the appeal of the defendant's work differed sufficiently from the appeal of the plaintiff's work.²¹⁶

214. See Act of January 6, 1897, ch. 4, 29 Stat. 481 (granting an exclusive public performance right to authors of musical works); Act of July 8, 1870, ch. 230, § 86, 16 Stat. 198 (granting an exclusive dramatization and translation right to authors of literary works); Act of August 18, 1856, ch. 169, 11 Stat. 138, 139 (granting an exclusive public performance right to authors of dramatic compositions).

215. See, for example, *Kustoff*, 120 F.2d at 560-61 (explaining that because similarities were not such as would lead "the ordinary observer to believe that the film has picturized appellant's book," there was no infringement); *Harold Lloyd*, 65 F.2d at 27-28 (finding no infringement because "it [was] fairly clear that, given an interval of two or three weeks between a casual reading of the story and a similar uncritical view of [the allegedly infringing work], it would not occur to such a spectator, in the absence of suggestion to that effect, that he was seeing in moving picture form the [copyrighted] story"); *Dymow*, 11 F.2d at 692 (finding that the ordinary observer would not recognize the allegedly infringing work as being taken from the original, therefore there was no infringement); *Sampson & Murdock*, 140 F. at 542; *McConnor v. Kaufman*, 49 F. Supp. at 744-45 (explaining that even if the defendant's work copied certain expressive elements from the plaintiff's work, "[t]he ordinary reader would find no connection between the two plays;" therefore, there was no infringement), affirmed, 139 F.2d 116 (2d Cir. 1943); *Solomon v. R.K.O. Radio Pictures, Inc.*, 44 F. Supp. 780, 782 (S.D.N.Y. 1942); *Roe-Lawton v. Hal E. Roach Studios*, 18 F.2d 126, 128 (S.D. Cal. 1927) ("Unless the public is deceived by the pictures, and led to believe that the films are a picturization of plaintiff's literary work (the standard of the ordinary observer being applied) then no infringement is shown").

216. See *Sampson & Murdock*, 140 F. at 541-42 ("[I]nstances may be easily cited where portions of a copyrighted book may be published [by another without permission] for purposes other than those for which the original book was intended. This may be particularly so where the second publication has an entirely different outlook from the first"); *McConnor*, 49 F. Supp. at 745 ("However, neither the ordinary observer, nor the keenest critic could recognize 'The Man Who Came to Dinner' as a reproduction or copy of 'Sticks and Stones.' It would take more than a play doctor to transmute one into the other"); *Solomon*, 44 F. Supp. at 782 (finding no infringement of the plaintiff's work by the defendant's motion picture because, despite

For example, in *Harold Lloyd Corp. v. Witwer*,²¹⁷ the plaintiff sued the defendants for copyright infringement, alleging that the defendants' silent film, entitled *The Freshman*, violated her copyright in a story entitled, *The Emancipation of Rodney*.²¹⁸ By this time, Congress had expressly provided the author with a picturization right.²¹⁹ As a result, the court could not resolve the case, as it could have in the nineteenth century, on the basis that a film was not a copy of, nor would it displace demand for, the plaintiff's short story.²²⁰ Instead, the court addressed the issue of infringement in terms of whether the defendants had used the expressive elements that they had taken from the plaintiff's work to create a work that reproduced the appeal of the plaintiff's work in movie form.²²¹ It was not enough, the court wrote, that the film may have contained elements that were too similar in degree to the expressive elements of the story.²²² The plaintiff must also demonstrate that an uncritical spectator would readily recognize the film as the plaintiff's story in motion picture

similarities between the two works, the average person would not recognize the motion picture as a "screen portrayal . . . of the plaintiff's play"); *Allen v. Walt Disney Productions, Ltd.*, 41 F. Supp. 134, 140 (S.D.N.Y. 1941) ("I have heard the compositions played, and to my ear there is a similarity, but not such a similarity as would impress one. In other words, I would not take the one for the other"); *Arnstein v. BMI, Inc.*, 46 F. Supp. 379, 381 (S.D.N.Y. 1942) ("Infringement . . . must be founded upon more than the adoption of a few measures here and there. The theme and general melody or composition must be substantially lifted"). See also Jeffrey G. Sherman, *Musical Copyright Infringement: The Requirement of Substantial Similarity*, 22 Copyright L. Symp. (ASCAP) 81, 145 (1977) ("[T]he two pieces must be similar enough to sound similar to a lay audience, since only then is it reasonable to suppose that the performance or publication of the accused work could in any way injure the rights of the plaintiff composer"). Even though the art form was well-known since well before the founding of this country, a court did not prohibit the reuse of expression in a parody until 1956. See *Benny*, 239 F.2d at 537 (noting that Mr. Benny had an unchallenged custom of creating such parodies for the previous twenty-five years, yet refusing to accord that custom any weight in defining the scope of copyright protection), affirmed, 356 U.S. 43 (1958).

217. 65 F.2d 1 (9th Cir. 1933).

218. *Id.* at 2.

219. See, for example, *Kalem Co. v. Harper Bros.*, 222 U.S. 55, 61-62 (1911) (interpreting the dramatization right to encompass the presentation of a work in motion picture form). See also 16 Stat. 198 (granting an exclusive dramatization right to authors of literary works).

220. Because film versions of a work do not generally compete with literary versions of the same work, see, for example, *Abend v. MCA, Inc.*, 863 F.2d 1465, 1481-82 (9th Cir. 1988), affirmed sub nom *Stewart v. Abend*, 495 U.S. 207 (1990); Nimmer and Nimmer, 3 *Nimmer on Copyright* § 13.05[B], at 13-84 to 13-85 (citod in note 57), a film version does not displace demand for a literary work. See also notes 246, 473.

221. In looking at the film and the story, the court noted that there were many elements that appeared in the movie that were sufficiently similar to expressive elements of the plaintiff's story to establish infringement if that was all a plaintiff needed to show to establish infringement. *Harold Lloyd*, 65 F.2d at 27-28.

222. *Id.* at 28 ("We are of the opinion that such similarities as exist between the play and the story, and there are many, are such as require analysis and critical comparison in order to manifest themselves").

form.²²³ After examining the two works as a whole, the court concluded that the defendant's film, despite the copying, was not recognizably a picturization of the plaintiff's story. As a result, even if the defendants had taken expressive elements from the plaintiff's story, they had not trespassed on the plaintiff's protected interest in her work.²²⁴

While this case reflects a broader protected interest than the competitive-displacement standard of the nineteenth century, it retains some limit on the plaintiff's protected interest beyond that implicit in the requirement that a plaintiff demonstrate that particular elements of the defendant's work are too similar in degree to the corresponding expressive elements in the plaintiff's work. Under either the nineteenth-century standard or the *Harold Lloyd* standard, the defendant's work not only had to contain elements too similar in degree to the plaintiff's expression, but also had to be too similar in type, in that it amounted to a mere reproduction of the plaintiff's work, either in the same language or medium of distribution, that is a copy, or in another language or medium of distribution, that is a nontransformative derivative work.

Neither the competitive-displacement standard of the nineteenth century nor the nontransformative-derivative-work standard of *Harold Lloyd*, is consistent, however, with the incentives-access paradigm. Broadening copyright to grant a work's author the exclusive right to prepare translations and abridgments of the work would not implicate any unusual need for access. From the coincidental re-creation perspective, the chance that a later author would create a German-language version of *Uncle Tom's Cabin* coincidentally, without referring to the original English-language version, is slight. Moreover, the risk of undue monopolization associated with an exclusive right to translate would be no greater than the risk of monopolization associated with the exclusive right to reproduce the English-language version. Both the translation and the

223. *Id.* at 27-28.

224. In dissent, Judge McCormick, sitting by designation, insisted that the defendant had copied "concrete forms that were conceived, developed, arranged, and put into shape by Witwer." *Id.* at 40 (McCormick, J., dissenting). In Judge McCormick's view, because the defendant had copied material parts of Witwer's expression into its film, the defendant had infringed the story, without regard to the response of an uncritical spectator to the two works as a whole. *Id.* (McCormick, J., dissenting). The majority rejected this approach, and explained that "[i]f we can see at first blush that there is no such similarity as would impress the ordinary observer, it is unnecessary to consider the question of . . . copyrightability of such similarities as exist." *Id.* at 28.

reproduction rights would preclude later authors from copying the expressive elements of Stowe's work, either in English or some other language,²²⁵ but both rights would leave later authors free to produce independently their own works which explored the important themes and racial conflicts Stowe captured in her work. If the ability of later authors to re-explore the same themes and issues in their own works adequately addresses the risk of undue monopolization with respect to the English-language version of Stowe's work, it should equally well address the risk of undue monopolization with respect to the German-language version.²²⁶

Similarly, application of the incentives-access paradigm suggests that copyright ought not generally²²⁷ limit an author's derivative work right to nontransformative derivative works. When we define a work's "expression" and determine that given similarities between a later work and the expressive elements of an earlier copyrighted work are sufficient to support an infringement finding, we necessarily ensure that an infringement finding based upon given factual similarities is not likely to threaten a compelling need for access. By definition, if protecting a particular element, or finding infringement based upon a particular degree of similarity, would implicate a compelling need for access, then a court applying the incentives-access paradigm should leave that element unprotected or find that degree of similarity insufficient to establish infringement.²²⁸ As a result, by the time we have decided that a later work exhibits undue similarity to an earlier work's expression, copyright will already have addressed the need for access to the earlier work.²²⁹ If access is the only cost

225. See, for example, *Litchfield*, 736 F.2d at 1357 (noting that to constitute an infringing derivative work, the later work must be substantially similar to the underlying work in its expression); *Twentieth Century-Fox Film Corp. v. MCA, Inc.*, 715 F.2d 1327, 1329 n.4 (9th Cir. 1983) ("Where defendant's work is adapted for use in a medium different than that of plaintiff's, the test for infringement remains the same"); *Nimmer and Nimmer*, 1 *Nimmer on Copyright* § 3.01 (cited in note 57) ("[A] work will be considered a derivative work only if it would be considered an infringing work if the material that it has derived from a pre-existing work had been taken without the consent of a copyright proprietor of such pre-existing work").

226. See *Kalem*, 222 U.S. at 63 ("It is suggested that to extend the copyright to a case like this [where defendants have made a motion picture from a summary of the plaintiff's work] is to extend it to the ideas as distinguished from the words in which those ideas are clothed. But there is no attempt to make a monopoly of the ideas expressed. The law confines itself to a particular, cognate and well-known form of reproduction"). If nothing else, the authors of the competing English-language works, which ensure adequate competition in the English-language market for such works, could simply translate each of their works into German.

227. As will be discussed, see text accompanying notes 255-72, broadening the author's derivative rights may create a compelling need for access in unusual cases.

228. See Part III.A.1.

229. Expanding the scope of the author's protected interest would increase the situations in which copyright would require a license for reusing expressive elements from the original work.

that broadening protection would impose, then, having already addressed the need for access through the idea-expression dichotomy and the degree-of-similarity inquiry, the incentives-access paradigm can suggest no reason to impose some further limit on copyright's protection, for example, by limiting the scope of an author's derivative work right.²³⁰

Moreover, on the other side of the incentives-access balance, granting an author the right to control any derivative work that reuses expressive elements from the underlying work would increase, perhaps substantially, the author's incentive to produce any given work.²³¹ Increased incentives means a likely increase in the variety of such works available, and in the absence of any countervailing need for access, would appear to justify expanding an author's derivative rights. The incentives-access paradigm thus suggests that copyright should expand its protection for derivative uses of an author's expression (until some compelling need for access appears).²³²

Some possibility therefore exists that expanding the derivative right might lead to increased instances of market failure. Yet, a court properly applying the incentives-access paradigm will label as expression only those elements of a work that are uniquely, or reasonably so, identified with a particular author. As a result, a later author who plans to reuse the expression of an earlier author can usually readily identify from whom she needs to obtain the license. The transaction costs associated with negotiating a license to translate, abridge, picturize, or otherwise reuse an expressive element will, therefore, rarely rise to a level where market failure is likely. For those few cases where market failure becomes likely, the Court has interpreted the doctrine of fair use to address the risk of market failure. See text accompanying notes 255-72.

230. As a general matter, unaddressed access concerns will arise only if expanding the scope of the author's protected interest would (a) create a serious risk of market failure due to the excessive transaction costs associated with obtaining a license, or (b) stifle some forms of creativity altogether. The Court has attempted to address these issues under the rubric of fair use, and I will postpone further discussion of these unusual access concerns until we address the fair use issue. See *id.*

231. See, for example, *Rogers v. Koons*, 960 F.2d 301, 312 (2d Cir. 1992) (noting that "unfair copying . . . chills creation").

232. See *Campbell*, 114 S. Ct. at 1178 (suggesting that parodic uses were not part of the author's derivative market because "[t]he market for potential derivative uses includes only those that creators of original works would in general develop or license others to develop"). See also *American Geophysical Union*, 60 F.3d at 930 ("Only an impact on potential licensing revenues for traditional, reasonable, or likely to be developed markets should be legally cognizable when evaluating a secondary use's 'effect upon the potential market for or value of the copyrighted work'"); *Twin Peaks Productions*, 996 F.2d at 1377 (noting that the fourth factor of the fair use analysis will favor the secondary user when the use "filled a market niche that the [copyright owner] simply had no interest in occupying"); *Pacific & Southern Co. v. Duncan*, 744 F.2d 1490, 1496 (11th Cir. 1984) (noting that the fourth factor of the fair use analysis may not favor the copyright owner when the secondary user "profits from an activity that the owner could not possibly take advantage of").

To illustrate, consider a case where a defendant has "sampled" expression from a copyrighted musical work, and has incorporated that phrase into a new rap song. If a court were to apply either the competitive-displacement standard, or the nontransformative-derivative-work standard to determine whether such a taking of expression constitutes infringement, it should find no infringement. Under a competitive-displacement standard, the question would be whether the rap artist had copied from the original in order to produce a work that would displace demand for the original. In resolving this question, a court would likely recognize that, whatever the relative aesthetic merits of rap and popular music, a consumer would not likely purchase the rap song as a substitute for the popular song.²³³ Because the rap song would not displace demand for the original, the later work would not interfere with the author's legally protected interest under the competitive-displacement standard, and it would not therefore infringe the author's copyright in the popular song. Similarly, if a court recognized an author's right to control nontransformative derivative works, the question would be whether the rap song amounted to no more than a mere translation of the popular song into the new "language" of rap.²³⁴ So long as the allegedly infringing rap song transformed the story or message of the original work, the use of a sampled expression from the original to emphasize or reinforce aspects of that transformed message would not preempt the original author's ability to market a nontransformative rap version of the original. As a result, the sampling, even though of expression, would not interfere with the author's legally protected interests in the original work under a nontransformative-derivative-work standard, and it would not, therefore, infringe.²³⁵

Yet, the incentives-access paradigm suggests that such sampling, if of expression, should constitute infringement. On the incen-

233. Indeed, under the *Stowe* competitive-displacement standard, a rap version of a popular song that reproduced all of the lyrics from the original pop version of the song would not infringe because it would not be a copy of, or displace demand for, the original version of the song. See *Stowe*, 23 F. Cases at 208 (finding the thoughts behind a published book to be "public property"). Because the author's protected interest did not extend beyond competitive displacement of the demand for the author's original work, the rap version would not interfere with the author of the pop song's legally protected interest.

234. Section 101 defines a derivative work as "a work based upon one or more preexisting works, such as a translation [or] musical arrangement . . ." 17 U.S.C. § 101. Presumably, a song that simply presented an existing work in a new musical format, such as rap, would fall within this definition. See *Campbell*, 114 S. Ct. at 1178-79 (considering a rap version of "Oh, Pretty Woman" as a derivative work).

235. See *Harold Lloyd*, 65 F.2d at 27-28. See also *Sampson & Murdock*, 140 F. at 542; *McConnor*, 49 F. Supp. at 744-45; *Roe-Lawton*, 18 F.2d at 128.

tive side, protecting the author against unauthorized sampling would offer the original author an opportunity to earn additional licensing revenue, and increase the available incentive to create a copyrighted work. Unless such protection would threaten some unusual need for access, such protection would therefore appear to be desirable. But no such compelling need for access appears. A later author can create future works, even rap works, without such sampling, and could likely obtain a license to reuse the expression without incurring excessive transaction costs in any event.²³⁶ Given the incentives that the broader derivative right protection could provide, and the lack of any countervailing need for access, the incentives-access paradigm suggests that sampling of a copyrighted work's expressive elements for reuse in a later work should constitute infringement, and at least one district judge has agreed.²³⁷ Even without any evidence that the rap song would displace demand for the original and even when the rap song presented its own distinct appeal, rather than simply reproducing the story or appeal of the original in rap, courts have held that the unauthorized reuse of a copyrighted work's expression can establish infringement.²³⁸

236. See, for example, *Grand Upright Music, Ltd. v. Warner Bros. Records, Inc.*, 780 F. Supp. 182, 184-85 (S.D.N.Y. 1991) (noting the practice of obtaining clearance before releasing a work that contains a sample from another work). See also Note, *A New Spin on Music Sampling: A Case for Fair Pay*, 105 Harv. L. Rev. 726, 727-28 (1992) (explaining that the music industry established an ad hoc licensing system for sampling). By identifying particular elements, or a particular level of abstraction, as expression, we have necessarily concluded that that element or level will be sufficiently identified with a particular author to minimize the transaction costs of obtaining a license to reuse such expression. See text accompanying notes 119-24. But see Havelock Nelson, *Dissed by Pirates, Dogged by "Sample Hell," a Maturing Art Form Fights for Respect*, Billboard R3, R24 (Nov. 28, 1992) (noting the significant expense and delay involved in obtaining permissions through the ad hoc licensing system).

237. See *Grand Upright Music*, 780 F. Supp. at 183, 185 & n.2 (referring the case to the United States Attorney for criminal prosecution, and asserting, given that the defendant's work embodied three words from the plaintiff's copyrighted work, "[t]he only issue, therefore, seems to be who owns the copyright to the song"). See also *Rogers*, 960 F.2d at 312. Note that this result is also inconsistent with the statutory definition of derivative works. In ordinary speech, we would not say that the borrowing of only one characteristic phrase would make the rap song a work that is based upon the popular song. The words "based upon" seem to describe a closer and more fundamental relationship between two works, which would require the first work to provide, in essence, the foundation of the later work. Isolated copying, even of expression, would not seem to create a "based upon" relationship. Compare *MacDonald*, 144 F.2d at 701 (remanding the case for trial on the issue of infringement based upon similarities such as the common "reference to trees looking like sentinels").

238. See *Jarvis v. A&M Records*, 827 F. Supp. 282, 291 (D.N.J. 1993) (noting that in determining whether sampling constituted infringement, the fact that "[t]he two songs were utterly unlike and reached completely different markets" was irrelevant).

In defining the scope of the author's protected interest, the incentives-access paradigm thus suggests that an author should have the right to control any reuse of her work's expression. And the course of copyright over the past two hundred years has been a steady evolution of the author's protected interest in that direction. As discussed, over the course of the late nineteenth and early twentieth centuries, Congress systematically eliminated the freedom of others to abridge, translate, dramatize, perform, or otherwise rework a copyrighted work.²³⁹ Courts too have followed the path suggested by the incentives-access paradigm, finding infringement even in the absence of any evidence that the later work has displaced, or would displace, demand for the original.²⁴⁰ While some courts have been careful to retain a target audience test that focuses on whether a later work interferes with the plaintiff's legally protected interest,²⁴¹ the tendency has been to drop altogether a separate inquiry into the scope of the author's legally protected interest. Some courts have done so by merging the actual copying and infringing appropriation inquiries into a single test that requires only access and substantial similarity in expression to establish infringement.²⁴² Others have formally retained a separate target audience response test, but have asked

239. See the statutes cited in note 214.

240. See *Twin Peaks Productions*, 996 F.2d at 1371-73; *Horgan v. MacMillan, Inc.*, 789 F.2d 157, 162-63 (2d Cir. 1986); *Benny*, 239 F.2d at 536-37; *Dam v. Kirk La Shelle Co.*, 175 F.2d 902, 907-08 (2d Cir. 1910) ("Unless the copyright statute is broad enough to cover any adaptation which contains the plot or theme of the story, it is wholly ineffective").

241. See *Dawson v. Hinshaw Music, Inc.*, 905 F.2d 731, 734 (4th Cir. 1990) (continuing to interpret improper appropriation in terms of "the effect of the defendant's work on the plaintiff's market"); *Ideal Toy Corp. v. Fab-Lu Ltd.*, 360 F.2d 1021, 1022-23 (2d Cir. 1966) (finding no infringement where "the total effect of the image conveyed to an ordinary observer by the accused dolls is quite distinct from that of . . . [the plaintiff's] dolls" (quoting the district court's opinion)).

242. See, for example, *Business Trends Analysts, Inc. v. Freedomia Group, Inc.*, 887 F.2d 399, 402 (2d Cir. 1989) ("Copyright plaintiffs can prove infringement by demonstrating the defendants' access to the copyrighted work and a substantial similarity between the two works"); *In Design v. Lauren Knitwear Corp.*, 782 F. Supp. 824, 830-31 (S.D.N.Y. 1991) (finding infringement based upon access and substantial similarity). Combining the two inquiries into one will produce the same result as would conducting separate actual copying and infringing appropriation inquiries in those cases where the similarities are so extensive as to establish both actual copying and improper appropriation. See *Arnstein*, 154 F.2d at 468-69 (referring to the "double-purpose evidence" of similarity). See also *Universal Athletic Sales*, 511 F.2d at 907-09. However, suggesting that access plus substantial similarity alone will establish infringement in every case creates a risk of a mistaken infringement finding in those cases where separate consideration of actual copying and improper appropriation would demonstrate that one element is not present, even though the evidence establishes access plus substantial similarity. For examples of such mistakes, see *Roth Greeting Cards v. United Card Co.*, 429 F.2d 1106, 1110 (9th Cir. 1970) (holding that the substantial similarity that results from actual copying establishes infringement); *Ideal Toy Co. v. Sayco Doll Corp.*, 302 F.2d 623, 624 (2d Cir. 1962) (finding infringement based upon access plus substantial similarity even though the overall appearance of the second doll was not sufficiently similar to establish improper appropriation if that element were examined independently).

whether the audience would recognize any aspect of the later work as being taken from the expression of the original, rather than asking whether the audience would consider the later work a duplicate of the original's appeal.²⁴³ By shifting the focus of the target audience test, these courts ensure that a later work will infringe so long as the later work contains any element that the relevant target audience would recognize as being too similar to the earlier work's expression.²⁴⁴

In effect, courts have merged the legally protected interest inquiry, or the too similar in type inquiry, into the question of whether the second work contains elements that are too similar in degree to the expressive elements of the first work.²⁴⁵ Implicitly, these courts have adopted the position that any work that contains such overly similar elements necessarily interferes with the plaintiff's legally protected interest, and is therefore infringing. Under this approach, a later work, to avoid interfering with the plaintiff's legally protected interest, must either copy only ideas or express what it has copied in a sufficiently different way.

Whether we see the elimination of, or the change in, the target audience test as simply an expansion of the author's legally protected interest, or as the elimination of the too similar in type element, it allows a plaintiff to establish an infringing appropriation by showing that particular elements in the defendant's work are too similar to corresponding expressive elements in the plaintiff's work. This change is entirely consistent with, and to a substantial extent driven by, the incentives-access paradigm. Because the incentives-access paradigm suggests that the only cost from broader protection is the potential for lost access, the absence of any compelling need for access indicates that copyright can expand an author's derivative right protection at essentially no cost. As a result, what began as a system to protect authors against copying competitors has become a system that

243. See *Atari*, 672 F.2d at 614 (“[T]he test is whether the accused work is so similar to the plaintiff's work that an ordinary reasonable person would conclude that the defendant unlawfully appropriated the plaintiff's protectible expression by taking material of substance and value”).

244. See, for example, *Twin Peaks Productions*, 996 F.2d at 1371-73; *Laureyssens*, 964 F.2d at 140 (allowing proof of improper appropriation “by demonstrating that substantial similarities relate to protectible material”); *Walker v. Time Life Films, Inc.*, 784 F.2d 44, 48 (2d Cir. 1986) (explaining that a plaintiff can show that an expression was “‘improperly appropriated,’ by proving that the similarities relate to copyrightable material”).

245. See, for example, *Twin Peaks Productions*, 996 F.2d at 1371-73; *Laureyssens*, 964 F.2d at 140; *Walker*, 784 F.2d at 48.

attempts to ensure that the author can control every valuable use of her work.²⁴⁶

Our previous discussions, on the idea-expression dichotomy and the degree of similarity copyright requires, focused on the limits to copyright's protection that an unusual need for access dictates. This discussion, focusing on the continuing expansion of the author's protected interest, illustrates the other side of the incentives-access coin: In the absence of any unusual need for access, the paradigm can suggest no reason to limit copyright protection. Once copyright has addressed the need for access—by excluding protection for ideas,²⁴⁷ by requiring an appropriate degree of similarity,²⁴⁸ or otherwise—the incentives-access paradigm cannot justify further limiting the scope of copyright protection, by limiting, for example, infringement to cases of competitive displacement of the original work, or to nontransformative derivative works.

C. Defining Fair Uses

As Congress and various courts have expanded the scope of the author's protected interest, so too have they narrowed the scope of the fair use doctrine. Originally intended as a general standard for infringement, fair use in the nineteenth century asked whether the defendant had unfairly taken advantage of the plaintiff's labor by copying the plaintiff's work in order to produce a substitute for the plain-

246. The Court in *Campbell* discussed competitive displacement as the relevant harm for fair use purposes, 114 S. Ct. at 1177-78, but it completely distorted the meaning of that phrase in the process. Competitive displacement refers to displacement of the demand for the original work by a substitute for that work. The *Campbell* Court, however, used the phrase to describe displacement of demand for the original or of demand in any protected derivative market. *Id.* Because the majority of consumers do not generally consider derivative works to be substitutes for the original work itself, the Court was not referring to competitive displacement as the nineteenth-century courts saw it, as the displacement of the demand for the original work in its original form by a direct substitute. Rather, the Court was referring to the potential displacement of demand in several different markets, some of which the author may eventually exploit, others of which the author may not exploit. The *Campbell* Court was not really talking about competitive displacement, then, since "competitive" displacement presupposes two products in the same market, but about a potential inability to exploit certain derivative markets if copyright permits another to exploit those markets first. This type of potential displacement differs significantly from displacing demand for the original by introducing into the original's market a substitute for the original. As a result, we ought not use the same phrase, "competitive displacement," to refer to these two different forms of demand displacement. When we include a broad protected derivative market as a part of copyright's legally protected interest, the phrase "lost opportunity to license" better captures the nature of the harm the copyright owner is suffering.

247. See Part III.A.1.

248. See Part III.A.2.

tiff's work.²⁴⁹ If the defendant had done so, then the use was unfair, or illegal. If the defendant had not done so, then the use was fair, or legal. At the heart of these nineteenth-century cases was the question whether the defendant copied as part of a bona fide effort to create a new work or in order to supersede the original work under the pretense of creating a new work.²⁵⁰ While this standard left room for dispute on whether a defendant had acted unfairly in any given case, it expressly authorized the reuse by later authors of an earlier author's expressive elements. So long as the later author reworked the expressive elements in order to create a new work, with its own distinct appeal, a court would consider such a use fair. Thus, translations, abridgments, and other substantial reworkings of the original were all fair uses so long as they represented a bona fide attempt to rework the plaintiff's original materials.²⁵¹

Over the course of the late nineteenth and early twentieth centuries, however, Congress and various courts systematically expanded the scope of copyright's protection, and correspondingly, limited the freedom of others to rework a copyrighted work.²⁵² Each time Congress or a court prohibited a type of reworking that copyright had previously permitted, such action would, by definition, reduce by one the types of uses that could be considered fair.²⁵³ The systematic expansion of the derivative right in the twentieth century reinforced this trend and further narrowed the scope of the fair use doctrine. As

249. See *Folsom*, 9 F. Cases at 348. See, for example, *White*, 185 F. at 922; *West Publishing Co. v. Edward Thompson Co.*, 169 F. 833, 865-67 (E.D.N.Y. 1909); *Simms*, 75 F. at 9-10; *Lawrence*, 15 F. Cases at 60-61; *Drury*, 7 F. Cases at 1116; *Greene*, 10 F. Cases at 1134; *Emerson*, 8 F. Cases at 625.

250. See *Lawrence*, 15 F. Cases at 59, 61 ("Reviewers may make extracts sufficient to show the merits or demerits of the work, but they cannot so exercise the privilege as to supersede the original book"); *Story*, 23 F. Cases at 175 ("[A] fair abridgment, though it may injure the original, is fair"); *Gray*, 10 F. Cases at 1038 ("In some cases, indeed, it may be a very nice question, what amounts to a piracy of a work, or not. Thus, if large extracts are made therefrom in a review, it might be a question, whether those extracts were designed bona fide for the mere purpose of criticism, or were designed to supersede the original work under the pretense of a review, by giving its substance in a fugitive form"); *Folsom*, 9 F. Cases at 344-45 ("Thus, for example, no one can doubt that a reviewer may fairly cite largely from the original work, if his design be really and truly to use the passages for the purposes of fair and reasonable criticism. On the other hand, it is as clear, that if he thus cites the most important parts of the work, with a view, not to criticise, but to supersede the use of the original work, and substitute the review for it, such a use will be deemed in law a piracy").

251. See, for example, *Stowe*, 23 F. Cases at 208; *Webb*, 29 F. Cases at 518-19; *Story*, 23 F. Cases at 175.

252. See note 214 and text accompanying notes 237-48.

253. For example, when Congress granted the author the exclusive right to translate or dramatize her work, it redefined such uses of a copyrighted work as unfair, and thereby narrowed the scope of the fair use doctrine.

a result, if we were to define fair use simply as the legal use of another's expression, and we were further to assume that copyright presently protects every profitable use of a work's expression, then that would leave an unprofitable use as the only legal, or fair, use of another's expression today. As a description of the scope of the present-day fair use doctrine, that would not be far from wrong.²⁵⁴

Because of the substantial expansion in the author's protected interest that took place over the past one hundred twenty years or so, fair use today serves as little more than a backstop to ensure courts an avenue by which they can address on a case-by-case basis any compelling access concerns that the idea-expression dichotomy and the degree-of-similarity standard have left unaddressed. Even though the process of satisfying the idea-expression and too-similar-in-degree elements will usually address any need for access with which a finding of infringement might interfere, the expansion of the author's protected interest to encompass basically any lawful, profitable use of her expression may nevertheless interfere with a compelling need for access in some cases.²⁵⁵ To address this possibility, the incentives-access paradigm suggests that copyright should provide a means to identify and limit copyright's usual scope of protection in such exceptional cases, and that is the role the fair use doctrine has come to play.

In *Sony Corp. of America v. Universal City Studios, Inc.*, for example, the Court addressed whether copyright should limit the use by private individuals of video-tape recorders for the time-shifting²⁵⁶ of publicly broadcast television programs. Such private individuals would usually know which programs they had taped, and could presumably identify the party from whom they would need to obtain a "time-shifting" license. Yet, despite the ready identification of the licensing party, the transaction costs of obtaining and enforcing such a license would routinely exceed the gains in trade available from

254. See *Sony*, 464 U.S. at 451 ("[E]very [unauthorized] commercial use of copyrighted material is presumptively an unfair exploitation of the monopoly privilege that belongs to the owner of the copyright"). See also *American Geophysical Union*, 60 F.3d at 922 (noting that any copying of another's work that allows one to earn a profit weighs heavily against a finding of fair use); *Basic Books*, 758 F. Supp. at 1535 (finding infringement where the defendant was making a profit repackaging the plaintiff's copyrighted works). Compare *Campbell*, 114 S. Ct. at 1177-78 (limiting the presumption to nontransformative uses).

255. See, for example, *Sega Enters., Ltd. v. Accolade, Inc.*, 1993 U.S. App. LEXIS 78, *27, *52-53 (9th Cir. 1993) (holding that the disassembly of a computer program is a fair use as a matter of law where it is necessary to access the program's unprotected elements).

256. The Court defined "time-shifting" as the use of a videotape recorder "to record a program he cannot view as it is being televised and then to watch it once at a later time." *Sony*, 464 U.S. at 421.

such licenses.²⁵⁷ As a result, requiring such licenses would likely lead to market failure in many instances.²⁵⁸ To avoid the risk of market failure that requiring time-shifting licenses would create, the incentives-access paradigm suggests that copyright should consider such time-shifting a fair use, and the Court agreed.²⁵⁹

In addition to increasing the chance that excessive transaction costs might lead to market failure in some cases, the expansion of the author's protected interest also risks stifling some forms of creativity altogether.²⁶⁰ This risk, and a corresponding need for access, will arise for those forms of creativity that embody three characteristics. First, the work must embody a desirable form of creativity, one that we would like to see exercised. Second, the work must embody a form of creativity that requires the taking of expression from earlier works in order to exist at all. And third, the work must embody a form of creativity that the typical author would be unwilling to authorize, or at least, unwilling to authorize at a less-than-prohibitive price. In combination, the presence of these elements establishes a compelling need for access. If the later author, by the very nature of her preferred form of creativity, must borrow from the expressive elements of an earlier work, yet cannot reasonably obtain permission for such borrowing, applying copyright's usual scope of protection would

257. While the Court did not address the transaction costs issue directly, the majority refused to consider, in evaluating the effect of the taping on the "potential market for or value of the copyrighted work," the potential revenue the copyright holders could have earned from licensing individuals to time-shift. Compare *id.* at 484-85 (Blackmun, J., dissenting) (noting the "sizable market" of persons who "would be willing to pay some kind of royalty" for the "privilege of watching copyrighted work at their convenience"). In effect, the Court ruled that this potential licensing revenue was not part of the copyright holder's legitimate market, and therefore should not be considered in evaluating the fourth fair use factor. *Id.* at 456 (finding that the plaintiffs "failed to demonstrate that time-shifting would cause any likelihood of non-minimal harm to the potential market for, or the value of, their copyrighted works"). While one court has interpreted this refusal as an indication that the Court felt this market was "too insubstantial to tilt the fourth fair use factor in favor of the copyright holder," *American Geophysical Union*, 60 F.3d at 930 n.8, I find it more plausible to infer that the Court refused to consider such licensing revenue because of the extreme difficulty of arranging and collecting payment for such licenses. See Richard P. Adelstein and Steven I. Peretz, *The Competition of Technologies in Markets for Ideas: Copyright and Fair Use in Evolutionary Perspective*, 5 *Intl. Rev. L. & Econ.* 209, 230-33 (1985) (noting that the Court refused to find infringement based upon the cost of such licensing exceeding benefits, and critiquing that approach on the basis that "decentralized remedial arrangements which would permit the consensual transfer of these rights in markets" was possible).

258. More likely, if the law required such licenses, most individuals would simply ignore the requirement, rendering that aspect of copyright protection unenforceable absent some sort of vicarious liability that would hold the manufacturer liable for the tapers' infringements.

259. See *Sony*, 464 U.S. at 454-55 (stating that home time-shifting is fair use).

260. See Gordon, 82 *Colum. L. Rev.* at 1632-35 (cited in note 41).

effectively prohibit the later author from exercising her preferred form of creativity altogether. If the work is a desirable form of creativity, the only way copyright can ensure the production of such works is to provide an exception to its usual scope of protection. The incentives-access paradigm thus suggests a need to limit protection as against those works that embody these three access-related criteria, and courts have interpreted the fair use doctrine to address the otherwise unaddressed need for access such works present.²⁶¹

Note, however, that if even one of these three characteristics is missing, the need for access becomes far less compelling. If the later work is not a desirable form of creativity, then there would be little need to ensure that it can exist, and hence no need to ensure access.²⁶² If the later work can be created without copying, then it will exist even without copying, and again there would be no unusual need for access.²⁶³ If the author of the later work could usually expect to obtain a license for the reuse at a reasonable price, then again there would be no unusual need for access. Thus, if a later work borrows expression from an earlier work, and does not embody all three of these access-related characteristics, there is no unusual need for access, and the incentives-access paradigm suggests that courts should not limit copyright's protection by finding such a use to be fair.

261. See *Campbell*, 114 S. Ct. at 1172, 1176-77 (holding that the "fair use" doctrine allowed the taking of words or phrases when adopted for use as commentary or parody); *Fisher v. Dees*, 794 F.2d 432, 437 (9th Cir. 1986); *Elsmere Music, Inc. v. National Broadcasting Co.*, 623 F.2d 252, 253 (2d Cir. 1980). See also *Warner Brothers*, 720 F.2d at 242-43; *Berlin v. E. C. Pubs., Inc.*, 329 F.2d 541, 544-45 (2d Cir. 1964).

262. See, for example, *Metro-Goldwyn-Mayer, Inc. v. Showcase Atlanta Coop. Prods., Inc.*, 479 F. Supp. 351, 357 (N.D. Ga. 1979) (stating that, in order for the "fair use" doctrine to be applicable, the parody must achieve comic relief and make some critical comment or statement about the original work). Obviously courts should be careful of making value judgments concerning the desirability of particular forms of expression, as they are poor judges of the ultimate artistic worth of a work. See *Bleistein*, 188 U.S. at 251 ("It would be a dangerous undertaking for persons trained only to the law to constitute themselves final judges of the worth of pictorial illustrations, outside of the narrowest and most obvious limits"). Yet, the cases do illustrate far less concern over ensuring that future authors can reuse another's work when that reuse involves a distasteful or pornographic setting. See *Walt Disney Productions, Inc. v. Air Pirates*, 581 F.2d 751, 757-58 (9th Cir. 1978) (holding that the reuse of Disney characters in "adult 'counter-culture' comic books" infringed Disney's copyright in its characters); *DC Comics, Inc. v. Unlimited Monkey Business, Inc.*, 598 F. Supp. 110, 117-19 (N.D. Ga. 1984) (holding strippers' skits infringed DC Comics's copyright in Superman and Wonder Woman works). See also *Dallas Cowboys Cheerleaders, Inc. v. Pussycat Cinema, Ltd.*, 604 F.2d 200, 204-05 (2d Cir. 1979) (expanding the scope of trademark protection to limit the ability of others to reuse another's trademark in a pornographic setting); *Pillsbury Co. v. Milky Way Prods.*, 215 U.S.P.Q. 124, 132-35 (N.D. Ga. 1981) (finding that the presentation of the Pillsbury Dough Boy in a sexual situation diluted its effectiveness as a trademark); Greenberg, 11 Cardozo Arts & Enter. L. J. at 29 (cited in note 38) (arguing that such value choices represent a form of censorship).

263. *Rogers*, 960 F.2d at 310; *MCA, Inc. v. Wilson*, 677 F.2d 180, 185 (2d Cir. 1981).

Applying these insights, *Campbell v. Acuff-Rose Music, Inc.* held that parody is a form of creativity that embodies the three access-related characteristics.²⁶⁴ Parody is a desirable form of creativity. It requires borrowing from its target's expression in order to ensure ready identification of its target. And it is not a use that a typical author would be willing to license, except perhaps on terms that would make this form of creative expression impracticable.²⁶⁵ Because parody embodies all three access-related characteristics, it presents an unusual need for access, so the incentives-access paradigm suggests that copyright should provide an exception to its usual scope of protection in order to ensure that such parodic works can exist. Following this insight, the Court sought to ensure parodic access by interpreting the fair use doctrine to allow a parodist greater leeway to copy an earlier work's expression than copyright ordinarily allows.²⁶⁶

At the same time, the Court was careful to limit the scope of its fair use exception by restricting it to those forms of creativity that embody all three access-related characteristics. The Court, for example, extended its fair use analysis to allow a work that criticizes, or objectively comments on, another copyrighted work greater leeway to copy the other work's expression.²⁶⁷ Such uses, in the Court's view, embodied all three of the access-related criteria, and therefore, required greater copying leeway than copyright ordinarily allows.²⁶⁸ Yet, it refused to allow satiric uses similar leeway.²⁶⁹ In justifying this distinction, the Court explained that satire can stand on its own; it need not copy from earlier works to make its point.²⁷⁰ As a result, satire does not share the same need for access that parody, criticism,

264. See *Campbell*, 114 S. Ct. at 1172, 1176-77.

265. *Id.* at 1171-73, 1175. See also *Fisher*, 794 F.2d at 437; *Elsmere Music*, 623 F.2d at 253; *Warner Brothers*, 720 F.2d at 242-43; *Berlin*, 329 F.2d at 544-45.

266. *Campbell*, 114 S. Ct. at 1176-77; *Fisher*, 794 F.2d at 436-48; *Elsmere Music*, 623 F.2d at 253. But see *Benny*, 239 F.2d at 536-37 (suggesting in dicta that parody is treated no differently than any other taking).

267. *Campbell*, 114 S. Ct. at 1171, 1173, 1178.

268. Specifically, the Court noted that criticism and comment, like parody, are desirable forms of creative expression that require some copying of the target's expression in order to make their point effectively, yet are not the type of derivative work a typical author would usually authorize. *Id.* at 1178.

269. *Id.* at 1172 n.15. See also *Rogers*, 960 F.2d at 310 (finding the parody defense not applicable when parody is of society generally, rather than a copied work specifically).

270. *Campbell*, 114 S. Ct. at 1172 n.15.

and comment embody, and does not therefore warrant an exception to copyright's usual standard of protection.²⁷¹

By defining the fair use doctrine as a means to address compelling needs for access, otherwise unaddressed, that may arise in particular cases, the Court has converted the fair use doctrine from the primary standard by which courts are to resolve the issue of infringement into a secondary standard to be applied only in exceptional cases.²⁷² Like the expansion of the author's protected interest, this evolution of the fair use doctrine reflects the other side of the incentives-access coin: In the absence of any unusual need for access, the paradigm suggests that copyright should not limit its protection. Given that the process of determining whether a later work is too similar to the expressive elements of an earlier copyrighted work adequately addresses the need for access in most cases, an unaddressed need for access, and a corresponding need for a further limit on copyright's protection such as the limit that the fair use doctrine could provide, will likely arise only in exceptional circumstances. Yet, because we may on occasion find ourselves facing such exceptional circumstances, the incentives-access paradigm suggests that copyright should provide some means to address such exceptional cases. And as *Sony* and *Campbell* illustrate, this is the role courts have assigned the fair use doctrine today.

D. Summary of the Incentives-Access Paradigm

As this exploration of copyright doctrine suggests, the incentives-access paradigm has played a crucial role in shaping the scope of copyright protection.²⁷³ As a guide to copyright's proper scope, the in-

271. *Id.*

272. This task of forcing the fair use doctrine into a background role is made difficult by Congress's adoption of the four fair use factors courts in the nineteenth century. Because courts devised these four factors to resolve the entire issue of infringement, they incorporate all of the considerations necessary to resolve infringement. As a result, when a court tries to use the four factors in a background role, it essentially duplicates the substantial reproduction of unduly similar expressive elements that remains the basic standard for infringement. See 17 U.S.C. § 107. The four factors are: (1) purpose and character of the use; (2) nature of work; (3) substantiality of copying; and (4) the effect on the market value of the work.

273. While I have focused my exploration of the paradigm's influence on copyright's infringing appropriation inquiry, the paradigm's influence cuts across all aspects of copyright law. Many of the access-imposed limits that courts have incorporated into the copying element have close parallels in the ownership element. Compare *Donald v. Zack Meyer's T.V. Sales & Serv.*, 426 F.2d 1027, 1029-30 (5th Cir. 1970) (redressing the need for access to the language of earlier legal forms through more careful scrutiny of the originality of the plaintiff's work), with *Continental*, 253 F.2d at 705-06 n.3 (redressing the special need for access to the language of earlier legal forms by requiring the plaintiff to show near-verbatim duplication to establish the copying element). See also 17 U.S.C.A. § 101 (redressing the need for access to useful articles by

centives-access paradigm presents two sides. On one side, the paradigm demands a limit to protection if extending protection would interfere with a compelling need for access, either because extending protection would unduly limit the production of future works, or would create a risk of undue monopolization. On the other side, the paradigm suggests no reason to limit copyright's protection in the absence of some compelling need for access. Indeed, because broader protection would provide additional incentives to create copyrighted works, the paradigm suggests that protection should continue to broaden until further protection would begin to interfere with a compelling need for access.

Following these two guides, Congress and courts have created a copyright system that, first, protects an author against virtually any unauthorized reuse of her work. Second, to bound this broad scope, Congress and courts have created general and specific limits where necessary to prevent that protection from threatening the creation of future works or risking undue monopolization. The general limits on protection, found in the idea-expression dichotomy and the degree-of-similarity standard, limit protection for those works, elements, or levels of abstraction, which are likely to reappear in later works even in the absence of copying, or which must reappear in later works in order for consumers to consider the later works reasonable substitutes for the original copyrighted work. The specific limits, found in the fair use doctrine and in the variety of specific limits on protection detailed in sections 108 to 120 of the Copyright Act,²⁷⁴ address particular cases where the general limits leave a compelling need for access unaddressed. Third, application of the paradigm has led Congress and courts to shape copyright to provide substantially broader protection for entertaining works than for other-than-entertaining works.

Rather than examining and critiquing each of these aspects of copyright doctrine independently, the following Part examines the incentives-access paradigm itself in an attempt to determine whether the paradigm warrants the trust that courts, commentators, and Congress have given it over the past three centuries. This examina-

excluding them from protection as pictorial, graphic, and sculptural works except to the extent that they incorporate features independent of utilitarian aspects).

274. See 17 U.S.C. §§ 108-20 (establishing a variety of specific limits on an author's § 106 rights designed to minimize transaction costs and ensure access to works in various instances).

tion reveals serious flaws in the paradigm and suggests the need to reconsider copyright's proper scope.

IV. AN INTERNAL CRITIQUE OF THE INCENTIVES-ACCESS PARADIGM

In defining the general limits to copyright's scope, the incentives-access paradigm identifies two factors as central to defining copyright's proper boundaries: (1) the chance of an element's coincidental reappearance, and (2) later authors' need to reuse an element in order to compete effectively. When the chance of an element's coincidental reappearance or the need to reuse an element in order to compete becomes sufficient, protecting that element would either impede the production of future works or create a risk of undue monopolization.²⁷⁵ While these two concerns may sometimes overlap,²⁷⁶ they will not always or inevitably do so, and each is an independent and sufficient justification, under the paradigm, to leave an element or level of abstraction unprotected. Relying on this insight, copyright doctrine has incorporated the principle that an element or level should be left unprotected either if it is likely to reappear in later works even in the absence of copying, or if it must reappear in later works for consumers to consider the later works reasonable substitutes for the original.²⁷⁷

Thus, in *Baker v. Selden*,²⁷⁸ Baker did not and could not reasonably argue that the similarities between his and Selden's blank accounting forms were due merely to coincidence. On the contrary, not only did Baker admit copying the form, but the sort of similarities found in the two forms could only have resulted from copying. Nevertheless, the Court ruled that Baker could freely copy the forms in order to produce forms that would compete effectively with Selden's. Alternatively, in *Computer Associates Intl., Inc. v. Altai*,

275. See Part III.A.1.

276. For example, with fictional works, the chance of a later work presenting a story based upon humanity's interactions with extraterrestrials through coincidence rather than copying may be quite high. See *Litchfield*, 736 F.2d at 1356-57 (holding that the common element of human/extraterrestrial interaction was insufficient to establish substantial similarity). Consumers may also consider works depicting such interactions as a distinct market and refuse to consider works that fail to depict an extraterrestrial encounter to be an adequate substitute for the first. As a result, copyright should leave the extraterrestrial interaction element of the first work to depict such an interaction unprotected both to ensure the creation of future works, and to limit the risk of undue monopolization.

277. See, for example, *Computer Associates*, 982 F.2d at 707-10 (requiring the filtering out of elements that are dictated by efficiency or by external factors, or that are found in the public domain).

278. 101 U.S. (11 Otto) 99 (1879).

Inc.,²⁷⁹ Altai could not reasonably argue that consumers would not consider its OSCAR program a reasonable substitute for Computer Associates's ADAPTER program unless the language of its computer program mimicked the language of Computer Associates's program. Most consumers purchase a computer program both unaware of, and, so long as the program works, unconcerned with, the precise arrangement of the programming language used.²⁸⁰ Nevertheless, the court defined certain elements and levels of abstraction as unprotected because the common training and problem-solving approach of computer programmers made the reappearance of these elements or levels in a later work likely, even in the absence of copying.²⁸¹

Because "coincidental recreation" and "necessary to compete" are independent justifications for refusing to protect an element under the incentives-access paradigm, we can evaluate each justification independently. Moreover, because copyright doctrine has incorporated each as a separate and independent justification for denying protection to an element, an inability by either justification to produce a sensible result draws into question that aspect of the incentives-access paradigm and its corresponding reflection in copyright doctrine. Yet, the necessary-to-compete justification, as it has been applied, cannot generate sensible results even on its own terms. Specifically, to the extent the incentives-access paradigm suggests that we should limit copyright's protection when the marginal deadweight loss associated with protecting a particular element outweighs the need for an additional incentive to create that element, we cannot do so. Courts have recognized this, and have instead relied on common-sense intuitions about society's "need" for access to an element to determine whether copyright should protect an element. This common-sense approach, however, faces its own difficulties and inevitably leads to a copyright system that provides the most protection for the works we least need, and the least

279. 982 F.2d 693 (2d Cir. 1992).

280. In most cases, two programmers can write two programs that accomplish the same task without using a substantially similar program code. See, for example, *M. Kramer Mfg.*, 783 F.2d at 436 (noting that "there exists a virtually unlimited number of instruction sequences that would enable a programmer to construct a program which performs even the more basic algorithmic of mathematical procedures"); *E.F. Johnson*, 623 F. Supp. at, 1503 (recognizing that the "defendant's duplication of the EIJ sample error table was not a requisite to compatibility").

281. See *Computer Associates*, 982 F.2d at 708-10. See also Nimmer and Nimmer, 3 *Nimmer on Copyright* at 13-65 (cited in note 57).

protection for the works we most need. The following Sections take up each of these issues in turn.

A. *Paradox: Incentive and Deadweight Loss*

As a general matter, if we sought to establish when the degree of market power that copyright creates becomes "undue" by balancing the marginal deadweight loss against the additional incentive that broader copyright protection for a work or element would provide, we could not do so. Given demand and marginal cost curves of the shape usually associated with works of authorship, the rent²⁸² and the deadweight loss associated with such curves will remain in roughly constant proportion to one another without regard to the degree of

282. Economists traditionally define rent as the amount by which the sales price for each unit of a product exceeds the average total cost for each such unit. See Scherer, *Industrial Market Structure* at 14-15 (cited in note 140). This definition faces some difficulties if applied directly to works of authorship. In most cases, where a monopoly profit or rent is expected, that rent will be capitalized into the cost of the monopoly factors used to create the work. See Mackaay, 94 Colum. L. Rev. at 2635 (cited in note 22). See also *People In Brief*, Orlando Sentinel A2 (Sept. 20, 1994) (noting that Clive Cussler received \$14 million for a two-book publishing deal, that John Grisham receives \$15 million a book, and that Tom Clancy receives \$13 million a book). Thus, the difference between the sums John Grisham received for his first novel and his more recent novels represents the capitalization of the expected rent on his later works. See, for example, Malcolm Jones, Jr., *Best Sellers: No Escaping Grisham's Law*, Newsweek 66 (May 8, 1995) (reporting that Grisham received \$14.13 million for the film rights to his most recent novel, *The Rainmaker*); *People in the News*, World News Digest G2 (Aug. 18, 1994) (noting that Grisham received \$6 million for the more recent sale of his film rights to his novel *A Time to Kill*, as compared to the \$3.75 million he received for the earlier sale of his film rights to his novel, *The Chamber*). If the publisher and author have done a good job of predicting the actual rent, then the actual rent should be exactly capitalized into the author's initial payment for the work, and the publisher should exactly break even on the resulting work. Because of this capitalization phenomenon, the price for each copy of the work should exactly equal the average total cost for each copy of the work, and it would appear that no rent was earned on the work. See, for example, Scherer, *Industrial Market Structure* at 14-15 (cited in note 140) (noting the similar result for competing monopolists). Compare Landes and Posner, 18 J. Legal Stud. at 350 (cited in note 5) (ignoring this problem in suggesting that Professor Coase would receive an income in excess of his cost if copyright protected the Coase Theorem).

In order to avoid this difficulty, I will define rent as the amount by which the price for each copy of the work sold exceeds what the marginal cost would have been for the last copy that would have been sold in a perfectly competitive market. Because the marginal and average total cost for such a copy would be equal if a perfectly competitive market is in equilibrium, see, for example, Robinson, *Imperfect Competition* at 95 (cited in note 11), and because the rents will usually be capitalized into the author's initial payment rather than the marginal cost of the copies, compare Fisher, 101 Harv. L. Rev. at 1710-12 (cited in note 5) (discussing the capturing of part of the rent through per-unit license pricing), this should provide an effective way to approximate the additional income attributable to monopolistic aspects of the work's production in the context of the works of authorship. Moreover, the results I will derive using the averaged price model, see text accompanying notes 369-89, will turn on the averaged price received for resources, without regard to whether that price reflects rents or costs. See also Chamberlin, *Monopolistic Competition* at 194-95 (cited in note 32); Robinson, *Imperfect Competition* at 92-101, 120-29 (cited in note 11).

monopolization present. While a footnote demonstrates this point mathematically,²⁸³ the point is readily apparent. Both the rent and the deadweight loss are functions of the extent to which an individual can raise the price of her product above a perfectly competitive level. The more an individual can profitably raise the price of her product above a perfectly competitive level, the greater the rents and the greater the deadweight loss with respect to her product. As copyright provides an author with an increasing degree of market power, it increases the extent to which the author can profitably raise her price above a perfectly competitive level, and simultaneously increases both the rent the author receives for her work and the deadweight loss associated with protection of her work. As a result, if we narrow copyright's protection to reduce the deadweight loss associated with the copyright on a particular work, we necessarily reduce the rent the author can expect to receive for publishing the work. By narrowing copyright protection of, and thereby reducing the rent associated with, certain types of work, we decrease the incentive to create or publish those types of works, and reduce the chance that an author will invest the resources necessary to create such a work in the first place.²⁸⁴

As a result, without some external guide to determine the appropriate degree of access, attempting to balance marginal incentive (or rent) against marginal deadweight loss produces only paradox.²⁸⁵ If we limit a work's protection to ensure its dissemination, we necessarily reduce the incentive to create such work and decrease the chance that the work would have been created in the first place. If we

283. Proof: Let the demand curve for the market have the equation $P=a-bX$, where P is the price and X is the quantity demanded. If the marginal cost is constant, and the market is a perfectly competitive market, then $P_c=C$, where C is the marginal cost, and $X_c=(a-C)/b$. If the market is a monopoly, then marginal revenue is defined by the equation $dR/dX=a-2bX$. To maximize profit, an individual will sell that quantity where the marginal revenue equals the marginal cost, or $X_m=(a-C)/2b$. Her profit-maximizing price is $P_m=a-b*((a-C)/2b)$ or $P_m=(a+C)/2$. Her rent is defined as $R=X_m*(P_m-C)$ or $R=((a-C)/2b)*(a-C)/2$. (Because marginal and average total costs are mathematically related, see, for example, Robinson, *Imperfect Competition* at 27 (cited in note 11), a product that has a constant marginal cost will also have a constant average total cost.) Simplifying, $R=((a-C)**2)/4b$. The deadweight loss associated with such a monopoly is defined as $L_d=((X_c-X_m)*(P_m-P_c))/2$. Because $X_m=X_c/2$, $L_d=((a-C)/2b)*(((a+C)/2)-C)/2$. Simplifying, $L_d=((a-C)**2)/8b$. As a result, for any slope b , between zero and infinity, $R/L_d=(((a-C)**2)/4b)/(((a-C)**2)/8b)=2$. Or, in simple terms, the rent, and hence incentive, associated with any given degree of market power will always be exactly twice the deadweight loss.

284. See, for example, Mackaay, 94 Colum. L. Rev. at 2638 (cited in note 22). This assumes that individuals can estimate reasonably accurately the likely protection a court will afford a work in the event of an infringement action before she invests her resources in the work.

285. Compare Landes and Posner, 18 J. Legal Stud. at 341 (cited in note 5) (arguing that the lost consumer surplus drops out of the analysis).

increase a work's protection to increase the chance of its creation, we necessarily increase the price the author will charge for the work and thereby restrict access to the work if and when it is created.

Unsurprisingly, given its reflection of the incentives-access paradigm more generally, the caselaw reflects this paradox. In *Harper & Row Publishers, Inc. v. Nation Enterprises*,²⁸⁶ for example, *The Nation* magazine obtained a purloined copy of Gerald Ford's autobiography, excerpted key portions of the manuscript that concerned the Nixon pardon, and published those excerpts as part of an article on the Nixon pardon.²⁸⁷ As a result of *The Nation's* article, *Time* magazine backed out of a commitment to pay the copyright holders²⁸⁸ for the exclusive right to print prepublication excerpts from the manuscript.²⁸⁹ To resolve the case, the incentives-access paradigm would suggest that the Court should balance the deadweight loss associated with granting the copyright holders the exclusive right to serialize portions of the work against the additional incentive such a serialization right would provide. The Court knew (or could reasonably determine) the facts that the paradigm directs a court to balance: the additional incentive was the price *Time* magazine had promised to pay for the serialization right; the deadweight loss was the lost value associated with those consumers who desired but would not obtain access to the serialized portion of the underlying work if the excerpt ran exclusively in *Time*. Yet, the Court could not generate a determinate answer from those facts. The majority insisted that the additional revenue was vital to ensure the creation of the work (and future works of similar character),²⁹⁰ while the dissent insisted that granting protection would unduly limit dissemination of an important work (and of similarly important works in the future).²⁹¹ To which the majority replied, without this incentive, the work might not have been created in the first place.²⁹² But what good is it, the dissent insisted, if, after it is created, access to it is limited.²⁹³

In essence, each side's argument quickly boiled down to asserting one side or the other of the incentives-access paradigm. Neither

286. 471 U.S. 539 (1985).

287. *Id.* at 542-43.

288. In this case, President Ford had assigned his copyright with respect to the serialization right to Harper & Row Publishers, Inc. and Reader's Digest Association, Inc. *Id.* at 542.

289. See *id.* at 543.

290. See *id.* at 557.

291. See *id.* at 582, 588-90 (Brennan, White, and Marshall, JJ., dissenting).

292. See *id.* at 556-59.

293. See *id.* at 589 (Brennan, White, and Marshall, JJ., dissenting).

side could produce a definitive answer (or even a relevant response) to the other side's argument, not because the facts were unavailable, but because the facts the two sides focused on, deadweight loss and additional incentive, do not balance one another in the way that the incentives-access paradigm presupposes. Instead, they are mathematically related to one another.²⁹⁴ If we assume, for example, that a work has a demand curve that decreases at a constant rate and a fiat marginal cost curve,²⁹⁵ then whatever degree of monopolization is present, the rent will always be twice the deadweight loss.²⁹⁶ As a result, even if the Court could decide that copyright should limit its protection when, for example, the dollar-for-dollar marginal deadweight loss begins to exceed the marginal rent broadening copyright would provide, that would not enable the Court to determine whether copyright should limit or expand its protection for any given work because the additional incentive would always be twice the additional deadweight loss for any given increase in copyright's scope.²⁹⁷

To resolve this paradox, commentators have suggested that while the incentive to authors will increase at a constant rate as copyright broadens its protection, the returns for that additional incentive will not.²⁹⁸ Investments in works of authorship, like other investments, will encounter decreasing marginal returns as additional resources are invested; as a result, a court could balance the marginal benefit from additional incentives against the marginal deadweight loss to determine copyright's proper scope.²⁹⁹ While some commenta-

294. See note 283.

295. Those who have analyzed copyright using economics have made similar assumptions. See, for example, Landes and Posner, 18 *J. Legal Stud.* at 327 & n.4 (cited in note 5) (assuming a negatively sloping downward curve).

296. I am assuming that the slope of the demand curve lies between zero and negative infinity (in other words the demand curve is neither perfectly horizontal or vertical), and that the demand exceeds the marginal cost at some point along the demand curve (in other words the product is profitable). See note 283.

297. A relatively constant relationship between increased rent and increased deadweight loss will remain even if we allow the demand and marginal cost curves to vary somewhat from the straight-line functions we have assumed.

298. See, for example, Fisher, 101 *Harv. L. Rev.* at 1715-17 (cited in note 5); Landes and Posner, 18 *J. Legal Stud.* at 341-42 (cited in note 5) (explaining that consumer and producer surplus levels would be higher at a lower level of copyright protection).

299. See, for example, Fisher, 101 *Harv. L. Rev.* at 1715-17 (cited in note 5) (stating that the point of highest allocative efficiency is the point at which the difference between aggregate efficient gains and losses is the greatest); Landes and Posner, 18 *J. Legal Stud.* at 341-42 (cited in note 5). If done properly, application of such an approach will generate the same answers as will the averaged price analysis presented later in this Article. See Parts VI and VII. Professors Landes and Posner's analysis is flawed, however, because it assumes that the resources required to produce additional works of authorship will be drawn from markets that

tors have attempted to apply such an approach,³⁰⁰ courts and Congress have generally eschewed such an approach in favor of a common-sense approach to the monopolization issue.³⁰¹ Under this approach, if access to an element seems more than merely desirable, if it seems necessary in the ordinary sense of the word, then courts and Congress have generally concluded that protecting such an

are perfectly competitive and have perfectly internalized all costs and benefits. As a result, they can assume that the marginal cost of such resources will equal the marginal social value in their former use, and need not, therefore, separately account for the lost social value associated with the uses to which the resources would have been devoted but-for broader copyright protection. Thus, their equation 16 states: $W=f(N)w-E(N, z)$, where W is total welfare, N is the number of (equivalent) works created, w is the consumer and producer surplus per work before deducting the cost of creating the work, and z is the level of protection copyright provides. Landes and Posner, 18 J. Legal Stud. at 341. To account for the opportunity cost associated with drawing additional resources into the production of works of authorship, this equation should state: $W=f(N)w-E(N, z)-V(N, z)$, where V is the lost value associated with the products that would have been produced had the resources not been devoted to the creation of additional works of authorship. Professors Landes and Posner might intend to incorporate V into E , the cost of creating additional works, but their discussion of E suggests that it represents the increasing private cost of expressing a work as copyright protection increases, because of the increased need to take care to avoid infringement, the increased transaction costs to obtain the requisite permission to reuse elements, and the increasing administrative cost associated with broadening copyright protection. See *id.* at 341, 344, 345-56. They make no mention of the opportunity cost involved, and I must, therefore, assume that Professors Landes and Posner have assumed that this social cost is fully reflected in E , the private cost of creating additional works. Ironically, they appear to have retained this assumption even though they recognized that copyright prevents perfect competition, see Fisher, 101 Harv. L. Rev. at 1710-15 (describing various inefficiencies associated with a hypothetical case of copyright protection); Landes and Posner, 18 J. Legal Stud. at 354-55 (suggesting that an author would delay introduction of an original work to obtain licensing revenues for derivative works; such revenues would only exist if both derivative purchasing and the derivative selling markets are not perfectly competitive), and they presumably realize that in the absence of perfect competition, the private cost associated with resources drawn from other investments will not equal the marginal social value associated with such resources' former use, even if we continue to assume that resources are infinitely divisible. See note 13. Their failure to account for the difference between private and social cost associated with broader copyright protection causes their analysis to identify a broader-than-optimal standard of copyright protection as optimal, and renders it unreliable. See also Samuelson, et al., 94 Colum. L. Rev. at 2314 n.14, 2339-40 (cited in note 13) (defining market failure in a similarly flawed manner).

300. See, for example, Fisher, 101 Harv. L. Rev. at 1715 (cited in note 5) (applying this balancing approach). To the extent that Professor Fisher reaches a different conclusion concerning copyright's proper scope than I will, compare *id.* at 1717, with text accompanying notes 528-30, he provides no principled basis to determinate the aggregate efficiency loss caused by forbidding each successive use, and as a result, he underestimates such loss. See Fisher, 101 Harv. L. Rev. at 1716.

301. See, for example, *CCC Information Services, Inc. v. Maclean Hunter Market Reports, Inc.*, 44 F.3d 61, 69 (2d Cir. 1994) (stating that "ideas are too important to the advancement of knowledge to permit them to be under private ownership"); *Landsberg*, 736 F.2d at 488 ("Corollary to this axiom [that copyright protects only the expression of an idea, not the idea itself,] is a strong public policy permitting all to use freely the ideas contained in a copyrighted work"). See also *Dorsey v. Old Surety Life Ins. Co.*, 98 F.2d 872, 874 (10th Cir. 1938) ("A copyright upon a form of contractual provisions should not be construed so as to impinge upon the natural right of persons to make contracts containing the same contractual provisions and creating like contractual rights and obligations").

element would be undesirable. Thus, copyright leaves useful products, facts, and theories unprotected not because, on balance, the marginal cost from protecting such elements or works necessarily exceeds the marginal benefit, but because access to such other-than-entertaining elements or works is "necessary" in a way that, from this common-sense perspective, the need for access to an entertaining work can never be.

B. "Necessary" Elements

The belief that access to useful works presents, in some sense, a qualitatively different issue than access to entertaining works is not a new one. The Stationer's Company advanced a similar argument in its 1643 petition to the Star Chamber:

(1) Books (except *the Sacred Bible*) are not of such generall use and necessity, as some staple commodities are, which feed and cloath us . . . , and many of them are rarities onely and usefull only to a very few, and of no necessity to any, few men bestow more in Books then what they can spare out of their superfluties, and the gain of such as live by sellings of Books is not so great, as to raise them to an equality of riches with many others of sordid and ignoble professions. And therefore propriety in Books maintained amongst Stationers, cannot have the same effect, in order to the public, as it has in other commodities of more public use and necessity.³⁰²

Because, the argument goes, entertaining works are luxuries, while useful articles and other-than-entertaining works are closer to necessities, creating a monopoly in the markets for entertaining works will necessarily be less harmful than a corresponding degree of monopoly in the markets for other-than-entertaining works.

In substantial part, this argument is not economic, but moral—an issue not of how much people are willing to pay for certain things, but of the difference between the things we need and the things we can manage without. From this moral perspective, the harm a person suffers when she is denied access to a life-saving medicine cannot be measured by the price she would have paid for the medicine; the value of life goes beyond any mere dollar figure. We should, therefore, exercise greater care when we permit surcharges that add to the price of necessities, than when we permit surcharges

302. Arber, ed., 1 *A Transcript of the Registers at 587* (cited in note 23).

that add to the price of luxuries.³⁰³ In determining copyright's proper scope, this principle suggests that, whatever the dollar extent of the deadweight loss associated with broad copyright protection of an other-than-entertaining work, when compared to the deadweight loss associated with broad copyright protection of an entertaining work, broad protection of the other-than-entertaining work presents a far more serious concern than broad protection of the entertaining work. The other-than-entertaining work, if not a necessity, is at least much closer to a necessity than the entertaining work. From this moral perspective, access to an other-than-entertaining work is, therefore, more important than access to the entertaining work, and any degree of monopolization would, for such necessities, be an "undue" degree.

This argument also has an economic component. Specifically, perceptions of whether a work is a necessity may serve as a proxy for the deadweight loss that protecting the work would likely create. From this perspective, the more necessary access to a work or element seems, the greater the deadweight loss that would likely result if copyright were to protect that work or element. If we want to avoid giving copyright a scope that will create a certain level of deadweight loss for any given work, copyright should narrow its protection as a court perceives the work as becoming more of a necessity. For such works, the deadweight loss will reach the "undue" threshold at a narrower scope of protection than will protection of "unnecessary" works. Again, the argument concludes, to the extent that other-than-entertaining works are more necessary than entertaining works, copyright should narrow its protection for other-than-entertaining works to avoid creating an undue deadweight loss.

Whether understood from an economic or a moral perspective, this common-sense approach eliminates the need to balance incentives and access, and relies on intuitions concerning the importance of a work to society to determine whether copyright should limit its protection for a particular work.³⁰⁴ From this

303. As an example of such greater care, courts typically point to the patent system's requirement that the Patent Office examine an invention's novelty before a patent may issue with respect to a useful article. See *Baker*, 101 U.S. (11 Otto) at 102 ("To give to the author of the book an exclusive property in the art described therein, when no examination of its novelty has ever been officially made, would be a surprise and a fraud upon the public. That is the province of letters-patent, not of copyright"); *Herbert Rosenthal Jewelry*, 446 F.2d at 742 ("We think the production of jeweled bee pins is a larger private preserve than Congress intended to be set aside in the public market without a patent"). See also *Mazer*, 347 U.S. at 217 ("Unlike a patent, a copyright gives no exclusive right to the art disclosed").

304. Compare Ginsburg, 92 Colum. L. Rev. at 346 (cited in note 174). Copyright could limit its protection for such a work by denying protection of any sort, see 17 U.S.C. § 112 (denying protection for useful articles), by labeling certain elements or aspects of the work "ideas," see 17

perspective, a court need only determine whether an element or a work is more like something that people need, or more like something people merely want, in order to identify the situations where extending protection would likely create a risk of undue monopolization. When a work or element begins to cross the line from luxury to necessity, we can view protecting such a work as either imposing a surcharge on a necessity, or creating a risk of undue deadweight loss; but in either case, the common-sense approach suggests that at that point, a court should define a corresponding limit to copyright's scope and confine copyright's protection for such a work or element.

Three difficulties mar the utility of this common-sense approach, however. First, even if we accept the notion that access to necessary works is more important than access to luxuries, this approach leaves unclear how much of a surcharge or deadweight loss we should be prepared to accept. As others have recognized, we generally presume that any such monopoly surcharge or corresponding deadweight loss is undesirable.³⁰⁵ Presumably, a proponent of this approach would argue that we must be willing to accept some surcharge or deadweight loss in order to ensure an adequate incentive to create works of authorship. Yet, this approach provides no principled basis for deciding how much incentive is "adequate," or how much surcharge or deadweight loss is acceptable.³⁰⁶ As a result, it

U.S.C. § 102(b), by requiring a more substantial degree of similarity before finding infringement of such a work, see, for example, *Landsberg*, 736 F.2d at 488 (requiring "substantial similarity not only of the general ideas [of the works] but of the expression of those ideas as well"), or by finding that the copying of certain aspects or elements of such a work are an otherwise fair use, see 17 U.S.C.A. § 107(1) (establishing that the type of work at issue is the first factor in a fair use calculus). See also *Rosemont Enters.*, 366 F.2d at 310.

305. See Plant, 1 *Economica* at 170 (cited in note 12) ("The output which monopoly alone can evoke is not normally regarded as preferable to the alternative products which free competition would allow to emerge"). See also Arnold Plant, *The New Commerce in Ideas and Intellectual Property* 15 (U. London, 1953) ("[A] special case for a monopoly for publishers cannot rest on the general proposition that if business men are enabled to make monopoly profits, some of them will be devoted to good works").

306. The approach ultimately relies on the likelihood that an element will reappear in later works, even in the absence of copying, to define the limits of the permissible surcharge or deadweight loss. Thus, in *Herbert Rosenthal Jewelry*, 446 F.2d at 742, the court discussed the issue in terms of conferring a monopoly on the plaintiff if the jeweled bee pin were protected. Yet it is hard to imagine that consumers would not consider other forms of jewelry adequate substitutes for such bee pins. Thus, the decision seems to rest more on the fact that bees are a natural subject for jewelry and that such jewelry would likely occur in the future even without copying. In other words, "the production of jeweled bee pins is a larger private preserve than [copyright should protect]," *id.*, because coincidence alone would likely lead others to fashion such jewelry even in the absence of copying. As will be discussed, relying on the chance of

provides no principled basis for determining when the degree of monopolization that extending copyright's protection to a particular work or element would create becomes undue.

Second, if we are relying on perceptions about whether a work or element is a necessity to serve as a proxy for the deadweight loss that protecting the work or element would likely create, such an approach will, in many cases, generate a misleading indication of the likely deadweight loss associated with such protection. Deadweight loss consists of two components: (1) the extent of the lost satisfaction each consumer experiences who is unable to purchase a product because of its higher, more monopolistic price, and (2) the number of consumers who experience such loss.³⁰⁷ The first factor is a function of the degree of market power associated with a particular work. The greater the market power, the more substantial the monopolistic mark-up on the product, and as a general matter, the higher the average deadweight loss per consumer.³⁰⁸ The second factor is a function of the extent of the market for the work. The more people who desire to purchase the work, the more people who will, all other things being equal, experience the average deadweight loss if the work is priced more monopolistically.³⁰⁹ While perceptions about necessity may serve as an adequate proxy for market power, or the average deadweight loss each consumer will experience if copyright were to protect a work, it does not incorporate a consideration of the size of the relevant market, and will not, therefore, usually reflect the number of consumers who will experience such a deadweight loss.³¹⁰

For example, courts often cite Einstein's theory of relativity as an example of an element too important to society for copyright to

coincidental recreation alone would lead to a value-based return on works of authorship that would be both unfair and inefficient. See Part V.C.

307. See Baxter, 76 Yale L. J. at 358 (cited in note 12). See also Bork, *Antitrust Paradox* at 107-10 (cited in note 47).

308. For a work that has a demand curve that slopes downward at a constant rate and a flat marginal cost curve, the average deadweight loss per consumer will be exactly half the monopolistic mark-up for any given degree of monopolization. See note 283.

309. For a work that has a demand curve that slopes downward at a constant rate and a flat marginal cost curve, any degree of monopolization will cut in half the number of units sold, leaving half the consumers who would have purchased the work in a perfectly competitive market to do without or make do with the best available substitute. See *id.*

310. In one sense, "necessity" might refer to those things everyone needs in order to survive. Thus, the Stationers' Company referred to food and clothing, which are items everyone requires. Courts, however, have defined necessities to include everything that is useful, even if it is useful only to a small part of society. See, for example, *Baker*, 101 U.S. (11 Otte) at 103-05 (leaving an accounting system unprotected because it was useful); *Lotus Development*, 49 F.3d at 818-19 (leaving Lotus's menu structure unprotected); *Brandir*, 834 F.2d at 1142 (leaving an undulating tube bike rack unprotected); *Landsberg*, 736 F.2d at 488-89 (providing narrow protection for a guide on playing Scrabble well).

protect.³¹¹ Because of its importance, extending copyright protection to the substance of Einstein's theory would likely give Einstein (or his heirs) considerable market power and enable him to set a profit-maximizing price for access to his theory significantly higher than the price he could set if copyright refused to protect the substance of his formula. Yet, even if we accept the intuition that extending protection to the substance of his theory would allow Einstein to mark-up the price for access to his work substantially, thereby creating a significant loss in satisfaction for those who could not afford the higher, more monopolistic price, we cannot determine the total deadweight loss such protection would cause until we have determined the number of people who would experience such a loss. Moreover, to the extent the number of people who experience such disutility is relatively small, relying on the average deadweight loss as a proxy for total deadweight loss may prove misleading. For example, if copyright extended broad protection to Einstein's theory and to the movie *E.T.—The Extraterrestrial*, we might assume that the copyright on Einstein's theory would impose a higher average deadweight loss than the copyright on the movie.³¹² Yet, we cannot draw any conclusion concerning the total deadweight loss each copyright imposes, unless we know how many consumers experience such disutility. If the number of individuals who experience such disutility with respect to Einstein's theory is sufficiently fewer than

311. See *Nichols*, 45 F.2d at 121 ("These would be no more than Shakespeare's 'ideas' in the play, as little capable of monopoly as Einstein's Doctrine of Relativity, or Darwin's theory of the Origin of Species").

312. In addition, I have assumed that courts' perceptions of necessity serve as an adequate proxy for market power, or per consumer deadweight loss. Yet, in many cases, courts refuse to protect elements that do not appear to create any risk of undue market power. For example, courts have narrowed copyright's protection for quasi-fictional theories of historical events, such as Hoehling's theory of a sahoteur aboard the Hindenberg, or Nash's theory that Dillinger survived to hide his treasure in California, on the grounds that such "facts" must remain freely available to the public. See *Hoehling*, 618 F.2d at 978-79; *Nash*, 899 F.2d at 1541-43. Similarly, courts have limited protection for designer costumes, clothing, artistic bike racks, and spoked hubcabs, on the ground that such items are useful and must, therefore, remain freely available to the public. See *Whimsicality*, 891 F.2d at 455 (finding that a costume was a useful article not protected by copyright); *Brandir*, 834 F.2d at 1147-48 (2d Cir. 1987) (finding that a bike rack was a useful article not protected by copyright); *Norris Industries*, 696 F.2d at 922-24 (finding that a wire-spoke hub cap was a useful article not protected by copyright); *Fashion Originators Guild*, 114 F.2d at 84 (finding that clothing designs were not protected by copyright). It is hard to imagine that even reasonably broad protection of any of these items would create any significant degree of market power in the markets for such items. As a result, the assumption that broad copyright protection for other-than-entertaining works invariably presents a greater likelihood of undue market power than broad protection for entertaining works is untrue in at least some cases. See, for example, *Rosemont Enters.*, 366 F.2d at 307 (recognizing that "the Hughes biography may not be a profound work").

the number who experience such disutility with respect to the movie,³¹³ broad protection of Einstein's formula might create a smaller total deadweight loss than would broad protection of the movie *E.T.*

In any event, because deadweight loss is a function of both the extent of the deadweight loss each frustrated consumer experiences and the number of frustrated consumers, we cannot rely on perceptions concerning the extent of the likely per consumer deadweight loss alone to estimate total deadweight loss.³¹⁴ Even if the copyright on an entertaining work imposes only a small deadweight loss on each consumer unable to afford the work's higher, more monopolistic, price, such small losses can quickly add up if spread over a sufficiently large audience base. Moreover, to the extent the consumer base for accounting systems, scientific principles, or other other-than-entertaining works will sometimes be much smaller than the audience base for entertaining works, broad copyright protection for entertaining works will sometimes impose more substantial deadweight losses than would broad copyright protection for other-than-entertaining works.³¹⁵

313. This assumption is plausible if we limit our deadweight loss analysis to first-order deadweight losses. The number of physicists who actually understand and use Einstein's theory in their work is far smaller than the number of people who saw the movie *E.T.* See John Horn, "Fugitive" Holds On; "Jurassic Park" Eyes Worldwide Mark, Chicago Tribune N-4 (Sept. 17, 1993) (reporting worldwide gross theatre receipts of \$660 million for the movie *E.T.*); Bernard Weinraub, "Waterworld" Disappointment as Box Office Receipts Lag, N.Y. Times D1 (July 31, 1995) (reporting domestic theatre receipts of nearly \$400 million for the movie *E.T.*). If we include those individuals who recite and define the elements of Einstein's theory without any real understanding of or use for it in our count of individuals who would be denied access given broad copyright protection of the theory, then we would need to revamp our estimate as to the likely average deadweight loss. Such persons might lose the use of the theory as a means of demonstrating their intelligence, but their disutility from being denied access would not likely be significantly more than the disutility experienced by those denied access to, or forced to wait for access to, the movie *E.T.*

314. See Baxter, 76 Yale L. J. at 358 (cited in note 12).

315. See, for example, *Rosenmont Enters.*, 366 F.2d at 307 (recognizing that the Hughes biography may have value only for "future biographers (if any) of Hughes or for historians or social scientists"). Moreover, the rationale that *Baker* articulated in justifying narrow protection for useful works is also inadequate. The Court sought to justify the distinction between useful and entertaining works on the grounds that an author creates a useful work so that it can be used. 101 U.S. (11 Otto) at 102-04. Even if one accepts the Court's assumption that Selden published the books in order to communicate his accounting system to the public, rather than to earn a reasonable return on his authorship investment, the Court's reasoning cannot support the suggested use-entertainment or use-explanation line. Consider two possible interpretations of the Court's reasoning. First, the Court might have been suggesting that because consumers purchased Selden's book in order to use the system, granting a copyright to the system would somehow frustrate this purpose. *Id.* at 103-05. Selden was not, however, seeking an injunction against the use of his accounting system; he was merely trying to enjoin Baker from publishing a set of forms copied from his copyrighted works. While allowing Baker to produce and distribute copied forms might make the use of the accounting system less expensive, similar reasoning would apply equally well to entertaining works. If others were

Nevertheless, even if relying on perceptions of necessity would generate mistakes in estimating the deadweight loss in some cases, we might assume that other-than-entertaining works will usually have a consumer base as large as that typical for entertaining works. If we made such an assumption, then we could rely on the degree of market power that extending copyright protection to particular works, elements, or levels would provide as an indicator of the total deadweight loss such protection would likely cause. Given the same audience base, a greater degree of market power will impose a greater deadweight loss than would a lesser degree of market power. To the extent an assumption of equally sized consumer bases is accurate, and to the extent other-than-entertaining works are more "necessary" than entertaining works, perceptions of necessity may correctly suggest that extensive protection for other-than-entertaining works, as a class, would create a more substantial deadweight loss than extensive protection for entertaining works.³¹⁶

Alternatively, from the moral perspective, even if we are not certain that the typical other-than-entertaining work has as large an audience base as the typical entertaining work, we might argue that the exact dollar magnitude of particular deadweight losses is not ma-

allowed to produce lower priced copies of, for example, an original "ornamental illustration," presumably the copiers could underprice the original work and thereby make experiencing the "pleasure in . . . contemplation" that is the illustration's "final end" less expensive. *Id.*

Second, the Court might have been referring to the training effect present in learning Selden's accounting system. Once a consumer has learned Selden's accounting systems, she would not consider supplies for other accounting systems adequate substitutes for the supplies needed to use Selden's system because of the retraining costs she would have to incur in learning to use the supplies designed for use with other accounting systems. As a result, protecting the system might leave purchasers of the system open to exploitation by monopolistic pricing of the supplies needed to use the system. But see Farrell and Shapiro, 19 *RAND J. Econ.* at 123-24 (cited in note 167) (noting that competition for future consumers may limit the ability to exploit such market power). Yet it is hard to see how this exploitation differs from the monopolistic pricing of merchandise associated with popular films or of the monopolistic pricing of sequels. Indeed, sequels are designed and intended specifically to take advantage of a similar sort of training that occurs when the original work successfully involves us with the characters and situations it presents.

316. As with any attempt at classification and line-drawing, attempting to classify works as either other-than-entertaining and hence deserving of narrow protection, or entertaining and hence deserving of broad protection, may generate some mistakes where we classify a particular work as other-than-entertaining when it, in fact, deserves broad protection, or vice-versa. Such mistakes are an inevitable part of line-drawing, however, and do not undermine the desirability of line-drawing so long as the cost associated with such mistakes does not exceed the cost of drawing additional lines or creating additional classifications. See, for example, Fisher, 101 *Harv. L. Rev.* at 1719-22 (cited in note 5). For a more general discussion of the costs and benefits associated with classification and line-drawing, see Mark Kelman, *A Guide to Critical Legal Studies* 15-63 (Harvard U., 1987).

terial. To the extent that a work or element seems more like a necessity than a luxury, we should, from this moral perspective, be more careful in extending protection to such a work or element without regard to the particular dollar deadweight loss in order to avoid imposing surcharges on necessities. In short, we can arguably rely on perceptions of necessity to define where copyright should limit or narrow its protection either because such perceptions will, under certain assumptions, indicate the likely extent of the deadweight losses that more extensive protection would create, or because such perceptions would identify those necessities for which we should take particular care to minimize the monopoly surcharge broader copyright protection would enable an author to charge.

Even if we accept, however, that perceptions of necessity can serve as an accurate indicator of deadweight loss, or can identify situations where a surcharge would be particularly inappropriate, limiting protection for either reason is unwise. Such an approach would, by definition, limit protection for those works we most need. Indeed, it limits protection precisely because of our need for the work. As a result, even if copyright could better ensure access to such a necessary work once it has been created by limiting its protection for such work, limiting protection would reduce the chance that the work would have been created in the first place. To assert, therefore, that we do not want copyright to force others "to reinvent the wheel"³¹⁷ is, at best, problematic. If requiring others to reinvent, rather than copy, the wheel is necessary to ensure the invention of the wheel in the first place,³¹⁸ then obviously, we should require others to do their own work, that is reinvent, rather than copy, in order to ensure the wheel's creation.

More generally, we should not rely on perceptions of necessity to determine copyright's proper limits because such perceptions of necessity will, by definition, more or less directly reflect the social value of the work. In economic terms, providing any given degree of copyright protection will impose increasing deadweight losses with respect

317. See *E.F. Johnson*, 623 F. Supp. at 1498 n.11. See also *Feist*, 499 U.S. at 354; *Rosemont Enters.*, 366 F.2d at 310 ("It is just such wasted effort that the proscription against the copyright of ideas and facts, and to a lesser extent the privilege of fair use, are designed to prevent").

318. Of course, we can never be certain what exactly any given increase in copyright's protection will lead to. As a result, we should work with typical or average works of authorship in determining copyright's proper scope, and leave the decision over which works to create to the market and to individual genius. See Part VI.B.2.

to any given work as the work's social value increases.³¹⁹ The more valuable a work to society, the greater the deadweight loss that any given degree of copyright protection would create. As a result, if we limit copyright's protection to avoid excessive protection for necessary works, then we will necessarily limit copyright's protection for those works that are most valuable to society. To the extent broader protection for a work corresponds to a greater incentive to create such work, limiting copyright's protection for such works necessarily leads to a copyright system that provides the least protection for those works we most value. Such narrowed protection will reduce the incentive to invest in such "necessary" works, when compared to the incentive to invest in "unnecessary" works, and reduce the chance that, or delay the time before which, an author will create any given needful work. As a result, instead of ensuring society's access to needful works, narrowing protection for necessary works is likely to reduce society's access to such works by reducing the number of such works created in the first place.³²⁰

C. Conclusion

This analysis indicates serious difficulties in relying on a risk of undue monopolization to generate sensible results even on its own terms. Because deadweight loss will usually correspond directly to the rent (or incentive to create a particular work), for any given degree of copyright protection, we cannot identify when the degree of monopolization becomes undue by balancing the marginal incentive against the marginal deadweight loss that broadening copyright's protection would cause. Such an approach produces only paradox. Courts have sought to avoid the paradox inherent in attempting such a balance by relying on their perceptions of society's need for, or the

319. For example, for a work that has a demand curve that slopes downward at a constant rate and a flat marginal cost curve, the social value of the product will always equal three times the deadweight loss, regardless of the market power associated with the work, if the social value of the work equals the sum of the author's monopoly profit and the consumer surplus associated with the work.

320. See John Kay, *The Economics of Intellectual Property Rights*, 13 *Intl. Rev. L. & Econ.* 337, 348 (1993) ("As I said at the beginning, the intellectual property that is well protected is not intellectual property of great value or great creative merit, and the intellectual property that is of great originality and great creative merit is not at all well protected. The result is that quite disproportionate resources are attracted to producing these essentially second-rate, but fortuitously favored, activities"). Compare Landes and Posner, 18 *J. Legal Stud.* at 344 (cited in note 5) ("We know that the optimal extent of copyright protection tends to rise with the value of a work").

usefulness of, a work or element to determine whether copyright should protect the work or element. However, this common-sense approach faces its own central difficulties. First, it provides no principled basis for determining when the deadweight loss copyright creates becomes "undue." Second, common-sense perceptions of necessity are not always a good indicator of the deadweight loss that extending protection would impose. Third and most importantly, even if they were, or we found persuasive the moral principle that access to necessary works is qualitatively more important than access to luxuries, relying on perceptions of necessity alone inevitably leads to a copyright system that provides the least protection for the works that we most need. Indeed, it provides the least protection for such works precisely because we most need them. Yet, such an approach frustrates the very purpose it aims to serve. By narrowing its protection for such works, copyright will lead to the creation of fewer such works, as the lower incentive copyright thereby provides will likely lead to less investment in such works. Such narrowed protection is likely, therefore, to deny everyone access to some such needful works (by failing to provide an adequate incentive to ensure such work's creation) where broader protection would have ensured the work's creation and thereby guaranteed at least some degree of access.³²¹

While we might rely on coincidence alone to define copyright's appropriate limits—by refusing to protect an element when coincidence provides a plausible explanation for an element's reappearance—coincidence cannot justify many of the limits copyright presently imposes on its protection.³²² As a result, if we retain some sense that some elements are too important to society for copyright to protect, yet do not want a copyright system that encourages the creation of less essential over more essential works, then we must turn away from the incentives-access paradigm and consider a new approach to defining copyright's proper limits. The next Part begins developing

321. We might try to balance the lost value associated with those works that would not be created against the gains in access to existing works; however, courts have not done so. See notes 299-301 and accompanying text.

322. For example, coincidence alone cannot justify refusing to extend protection to an original accounting system or to an original menu structure such as that Lotus 1-2-3 employs. Yet courts and commentators consider limits on the protection of such original elements an essential part of the copyright system. See, for example, *Lotus Development*, 49 F.3d at 817-19. See also Landes and Posner, 18 J. Legal Stud. at 341, 350 (cited in note 5) (relying on excessive rent as the basis for denying copyright protection for the Coase Theorem, after explaining that deadweight loss is not relevant to determining copyright's appropriate limits; also identifying copyright protection of the Coase Theorem as creating such rents, yet ignoring similar rents copyright creates for popular authors such as Tom Clancy, Scott Turow, and John Grisham).

such a new approach by considering the question of who creates the value of a work of authorship.

V. INTERLUDE: JOINT VALUE GOODS

Implicit in the battle between more or less copyright protection lies a sometimes hidden debate over the worth of an author's labor. The debate has centered around two competing positions. First, those commentators who argue for a narrower scope to copyright protection typically assert that an author should be entitled to the minimum sum necessary to ensure the work's creation and production.³²³ Second, those commentators who argue for a broader scope to copyright protection typically assert that an author should be entitled to the full value of his creative work.³²⁴

In essence, the debate centers on the issue of whether an author should receive, and consumers should have to pay, the *cost* of producing a creative work, or the *value* of that work. In making the claim for a broad scope for copyright protection, commentators typically assert that an author should be entitled to the value of a work of his own creation. The proposition can sound innocuous if artfully

323. See Macaulay, *Copyright*, in 1 *The Speeches of Macaulay* at 235, 240-41 (cited in note 2); Breyer, 84 Harv. L. Rev. at 286 (cited in note 5) ("In fact, why is the author's moral claim to be paid more than his persuasion costs any stronger than the claim of others also responsible for producing his book: the publisher, the printer, the bookseller, and those responsible for the literature of the past that inspired him?"). Compare Goldstein, 55 L. & Contemp. Probs. at 82 (cited in note 41) ("If it would have taken no more than \$100,000 to get Margaret Mitchell to sit down at her typewriter to pound out 'Gone With the Wind,' and to get her publisher to publish the book, this is all they should receive [according to the low protectionists]"). From an economic point of view, we should not focus on the incentives to create any given work, as this is misleading. Instead, we should focus on whether the incentives to create works of authorship as a class are adequate, leaving the decision as to which work will be produced to those in the industry. See Part VI.B.2.

324. See, for example, Home Recording of Copyrighted Works: Hearings Before the Subcommittee on Courts, Civil Liberties, and the Administration of Justice of the House Committee on the Judiciary, 97th Cong., 2d Sess., 23 ("The central principle on which this [royalty on home recording equipment] hinges is this: The right of those who create television programs and feature films to own what they create") (statement of Jack Valenti, president of Motion Picture Assn of America) ("Hearings"); Goldstein, 1 *Copyright* § 1.1 (cited in note 5) (suggesting that copyright "entitles copyright owners to capture the full value that consumers attach to their works"); Goldstein, 55 L. & Contemp. Probs. at 84 (cited in note 41); Gary Kauffman, *Exposing the Suspicious Foundation of Society's Primacy in Copyright Law: Five Accidents*, 10 Colum.-VLA J. L. & Arts 381, 385 (1986) ("Whatever its origins, modern copyright law implicitly embraces the labor theory—that an author is entitled to the fruits of his labor"); *Interview with former Register of Copyrights, David Ladd*, 29 Pat. Trademark & Copyright J. (BNA) 334, 337 (1985) (suggesting that a copyright owner is entitled to "compensation . . . based upon what the public is willing to pay" for every use of a copyrighted work).

phrased, and the proponents of broadening copyright are usually careful to focus on the author's "central" role in creating the work,³²⁵ implicitly downplaying the role others have played in creating the product and its value. Careful phrasing should not, however, mislead us as to the nature of the author's contribution.

Without denying the hard work and creativity that an author may have invested in a work, we should also recognize two groups of other individuals whose efforts, as much as those of the author, are factual predicates of the market value of any given work of authorship: (1) those whose efforts made possible the physical creation and mass-market dissemination of the work; and (2) those whose efforts created a pool of spendable resources with which consumers can purchase the work. The absence of the efforts of the individuals comprising either of these groups would, as purely a factual matter, radically reduce, if not completely eliminate, the market value of any given work.

A. *Creating the Physical Product*

With respect to the physical creation of a work of authorship, courts and commentators have long recognized that an author will often build on pre-existing public domain material or on a pre-existing copyrighted work.³²⁶ The connection between earlier works and the "new" work may be obvious, as in the case of a film based directly on an existing play or novel,³²⁷ or the connection may be more tenuous, as in the case of an impressionistic painting that has been influenced by

325. The usual approach is simply to identify the work as belonging solely to the author, and leave implicit the conclusion that the author solely created the work's value as well. See Goldstein, 1 *Copyright* § 1.1 (cited in note 5) (arguing that the "copyright owner [is entitled] to capture the full value that consumers attach to their works").

326. See, for example, Kaplan, *An Unhurried View* at 2 (cited in note 12); Umbreit, 87 U. Pa. L. Rev. at 942 (cited in note 102); Alfred C. Yen, *The Interdisciplinary Future of Copyright Theory*, 10 *Cardozo Arts & Enter. L. J.* 423, 430-32 (1992).

327. See *Kalem*, 222 U.S. at 55 (holding a film-maker who produced a silent film that followed the story of Ben Hur liable for infringement); *Rogers*, 960 F.2d at 301 (holding that an artist who created a statue of two persons sitting on a bench with eight puppies infringed the copyright on a photograph of the same scene); *Daly*, 6 Fed. Cases at 1132 (holding that a play that included a last-second rescue of a man from the path of an onrushing train infringed an earlier play that included a very similar scene). Yet, even with respect to such obvious borrowing, the question of infringement may remain difficult. See *Sheldon v. Metro-Goldwyn Pictures Corp.*, 7 F. Supp. 837, 844 (S.D.N.Y. 1934) ("I find, therefore, that, whilst the defendants' writers had access to the Play and undoubtedly had it constantly before their minds when they were making the scenario for the Picture, they did not copy anything therein or take anything therefrom which was protected by copyright, and that, as a matter of law, therefore, they did not infringe the plaintiffs' copyright"), reversed, 81 F.2d 49, 55 (2d Cir. 1936) (finding that the motion picture copied scenes from an earlier play that amounted to "the very web of the authors' dramatic expression").

the works of Matisse.³²⁸ A later work may build on a theme or context established by an earlier work,³²⁹ or offer a contrast to the theme or context of an earlier work.³³⁰ In each of these cases, the earlier work influences and inspires the later work,³³¹ and however a court resolves the legal issue of infringement, we must recognize that, as a purely factual matter, the later work reflects the *combination* of the talents of the earlier authors and the talents of the work's recognized author.

Even for the author who creates an entirely novel work (assuming that is possible), the work itself would be of very little value without some means for making it generally available.³³² As should be readily apparent, numerous other products are necessary factual predicates for the physical production and distribution of every work of authorship. In the case of a literary work, for example, the availability of the pen, paper, and the printing press are essential prerequisites to the work's widespread distribution.³³³ Without these items and the efforts of those who invented them, the value of the literary work would be radically reduced, if not eliminated.

More recently, copy machines, video-cassette recorders, and binary storage and distribution technology, such as CD-ROMs and the Internet, serve as reminders that the market value of a work of authorship depends directly on the technology available to distribute the work.³³⁴ As did the printing press for written works four centuries

328. Compare John Livingston Lowes, *The Road to Xanadu: A Study in the Ways of the Imagination* (1927) (tracing the genesis of Samuel Taylor Coleridge's two poems "The Rime of the Ancient Mariner" and "Kubla Khan" in preexisting literary material).

329. See *National Comics Pubs., Inc. v. Fawcett Pubs., Inc.*, 191 F.2d 594, 603 (2d Cir. 1951) (defining the standard to determine whether Captain Marvel infringed the copyright in Superman comic strips); *Detective Comics*, 111 F.2d at 432 (finding that the plaintiff's Superman character was infringed by the defendant's Wonderman character).

330. See *Warner Brothers*, 720 F.2d at 243-45 (finding that a television series entitled *The Greatest American Hero* did not infringe motion pictures, television shows, and comic books based on the Superman character). See also *Walt Disney*, 581 F.2d at 757-58 (finding that placing Disney characters in an adult, counter-culture setting was infringing); Greenberg, 11 *Cardozo Arts & Enter. L. J.* at 29 (cited in note 38).

331. See, for example, Litman, 39 *Emory L. J.* at 966-67, 1008-11 (cited in note 5); Umbreit, 87 *U. Pa. L. Rev.* at 942 (cited in note 102).

332. Compare Goldstein, 55 *L. & Contemp. Probs.* at 81 (cited in note 41) (recognizing distribution technology as a prerequisite for widespread distribution of works of authorship).

333. See Breyer, 84 *Harv. L. Rev.* at 286 (cited in note 5). See also David Lange, *At Play in the Fields of the Word: Copyright and the Construction of Authorship in the Post-Literate Millennium*, 55 *L. & Contemp. Probs.* 139, 144-47 (1992) (discussing how copyright law has been forced to adapt to the technological revolution).

334. See, for example, Malcolm Jones, Jr., with Ray Sawhill, *Who Owns the Word?*, *Newsweek* at 71-72 (Aug. 14, 1995) (noting how dramatically technology has changed the publishing industry).

ago,³³⁵ these more recent advances open whole new horizons for existing and future works of authorship, vastly increasing the market value associated with these works.³³⁶ Given that the *combination* of the distribution technology and a copyrighted work creates the added market value, we cannot possibly assign the added value to one or the other simply as a factual matter.³³⁷

B. *Creating the Work's Value*

Putting to one side the essential role others always play in the physical creation and dissemination of the work, however, a more important consideration remains. Whoever is responsible, factually, for creating the physical product itself, the *value* of the product in our market economy will always be joint because it depends entirely on whether consumers have any "surplus"³³⁸ resources with which to purchase the product.

Imagine, if you will, a society with just one product: the essentials of life. Everyone in the society works full-time as a self-sufficient farmer to supply the food, clothing, and shelter essential to his or her family's survival. Over time, individuals develop techniques that permit them to supply more of these essentials than is necessary for their own survival. This surplus, which might exist in actual goods or in the creation of leisure time, represents the start of a market econ-

335. See Kaplan, *An Unhurried View* at 2 (cited in note 12) (discussing the invention of the printing press); Lange, 55 L. & Contemp. Probs. at 140 (cited in note 333) (same).

336. See James Lardner, *Fast Forward: Hollywood, the Japanese, and the Onslaught of the VCR* 291 (W.W. Norton, 1987). Compare Lange, 55 L. & Contemp. Probs. at 146 (cited in note 333) (stating that "today's technologies are designed to change the way we think about property . . . forever").

337. This has not stopped people from trying. Compare, for example, the various attempts to attribute the added value resulting from the VCR to one side or the other, as purely a factual matter. Compare Lardner, *Fast Forward* at 247-48 (cited in note 336) ("Here is what the home tapers use to harm our industry. It is nothing but a pile of plastic and chemicals and oxides and spindles, and it is useless until it comes alive with copyrighted music from those who we represent" (quoting Stanley Gortikov, president, Recording Industry of America)); *id.* at 263 ("Japanese machines do not create entertainment. The American motion picture industry does" (quoting Jack Valenti, Motion Picture Association of America)); *id.* at 266 ("Underneath all the legal arguments and legal labels that we've thrown around in this case, the case is really very simple and straightforward. Petitioners have created a billion dollar industry based entirely on the taking of somebody else's property" (quoting Stephen Kroft, oral argument to the Court in *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984))), with *id.* at 291 ("Most of the video dealers thought that Hollywood ought to be thanking them—and the electronics industry—for a new source of revenue, not only on current movies but on 'a lot of movies that were lying around in a vault somewhere'" (quoting Ira Gomberg)); *id.* ("This [the proceeds from tape sales] is all gravy money" (quoting George Atkinson, president, Video Station)).

338. "Surplus" refers to the resources left over after a consumer purchases those items she considers more essential. See J.R. Hicks, *Value and Capital* 38-41 (Oxford U., 2d ed. 1946).

omy because the surplus can be offered in trade for other goods, creating a demand that had not previously existed.

Assume further that this demand leads to the creation of a second product: works of authorship.³³⁹ After the introduction of this second product, the wealth of society increases. Society now has both the essentials and a luxury, one form of entertainment. It would be improper, however, to attribute, as simply a factual matter, the increase in wealth due to the introduction of works of authorship exclusively to the suppliers of the second product because the *combination* of the two products, rather than either product on its own, leads to the added wealth. In the absence of either the essentials or the works of authorship, the increase in society's wealth that occurred at the time works of authorship were introduced would disappear.³⁴⁰

In our market society, despite its greater complexity, the "joint" nature of market value remains. The amount a consumer will spend on a work of authorship, or any other product, depends entirely on how much money she has left after she buys everything she considers more important;³⁴¹ and the only reason a consumer will have money left after buying the more important items is that we require those items to be made available, as a general rule, at cost. If, for example, the state had established a lawful monopoly in the provision of food that permitted food suppliers to charge each consumer her reservation price for her food, a consumer would have far less, if any, money left to spend on works of authorship.³⁴²

Thus, whoever is responsible for the physical creation of a product, the value of that product is invariably joint, as the product's value depends entirely on the availability of a pool of spendable resources ("consumer surplus") that has been previously created by the individual efforts of everyone who contributes to society's wealth. As

339. We can assume for purposes of the example that the creation of creative works includes all of the other products necessary to the mass market distribution of the works.

340. Indeed, if we took away the essentials, all of the society's wealth would disappear.

341. Thus, when economists draw a demand curve for any given product, they hold constant the prices charged for other products, assume that the conditions of supply of all other commodities are fixed, or otherwise constrain shifts in demand caused by the interrelated nature of all demand curves. See, for example, Robinson, *Imperfect Competition* at 20 (cited in note 11).

342. Indeed, if the state enforced such a system, and if the providers of food could properly determine each consumer's reservation price, the only way an individual in such a society could have any money left over to spend on entertainment products would be to obtain her own food from a source other than the government-established markets. Otherwise, we would expect that the average person would spend every penny of her salary to purchase the food that, more so than anything else, is essential for her family's survival.

a result, while one can correctly say that an author's labor and creativity is one factual cause of the value of "her" work of authorship, one can equally well say that the farmers, the engineers, and everyone else who has in any way contributed to our wealth as a society are factually responsible for that value as well. As with the efforts of those who ensured the physical creation of the work of authorship in a marketable form, the labors of the individuals constituting this group are indispensable to the work's value because they establish a pool of consumer surplus, without which the work's market value would be radically reduced, if not eliminated.³⁴³

C. Copyright's Role in Assigning Joint Value

Given that the value associated with any new work of authorship, or more generally, with any new product, is therefore joint, the task becomes one of assigning that joint value between those who have contributed to it. Copyright plays a central role in this task. By defining copyright's scope more broadly, we can provide the author a greater degree of exclusivity in marketing her work and increase the costs to others of introducing competing works. We can thereby reduce the degree of competition an author will face and award an author a greater share of the work's joint value.³⁴⁴ Such a shift would increase the incentives to invest capital and labor in creating works of authorship, and would likely lead to the creation of additional works. However, such a shift would necessarily reduce the incentives for investing in every other task, both (a) directly, by allocating a greater share of the value of a work of authorship to the author, rather than to the many others who contributed to the value of the work, and (b) indirectly by (1) increasing the price of works of authorship, which reduces the buying power of wages generally, and (2) decreasing the relative earning power of those who are not authors. As a result, broadening copyright's scope will increase the returns available for authorship investments, while reducing the returns for every other

343. Having made the decision that products are to be made available at cost, it becomes easier to see why commentators might assign the increase in social wealth created by a new work to the work's author. Because we have already decided what value to assign the preexisting products (their cost), our ability to think about only so many things at one time makes it natural, indeed inevitable, that we will push the preexisting products from our minds, and accept them as a given. Having pushed the many other but-for causes of the new wealth from our minds, only the new work remains, and it is an easy mistake to associate the new wealth exclusively with the creator of the new work. Courts, in particular, may be prone to assign the value in that manner because the true nature of the choice will usually be obscured by the copier-versus-author context of the typical infringement action.

344. See text accompanying notes 25-33.

sort of labor. By doing so, copyright can encourage the creation of additional works of authorship, but it does so by luring the necessary resources away from other productive sectors of our economy.³⁴⁵ If copyright expands its protection too much in an attempt to "award" an author the "value" of her work when the rest of our economy operates on a "cost" basis, it will generate both inefficiency and unfairness.

To illustrate, consider a world where the state has established a perfect price-discriminating monopoly in the production of food, and a competitive market in every other sector of the economy. Given such a property regime where one sector of the economy has a value-based return, while every other sector has a cost-based return, only members of the value-based sector of the economy would have any money left at the end of the month to spend on anything other than the absolute necessities of life. Everyone in one of the cost-based sectors will have to turn over their entire earnings, less perhaps an allowance for other essentials such as clothing and shelter, simply to purchase the food they require to survive. Such a property regime would create both inefficiency and unfairness. In terms of inefficiency, if the state allows additional "entry" into the value-based sector of the economy, for example, by allowing individuals to become self-sufficient farmers who distribute any surplus production through the state's food monopoly, then, so long as there is room for more such farmers, many individuals will choose to become farmers, rather than work in one of the cost-based sectors of the economy. For the individual, such a choice would represent the only way in which to obtain something more than the absolute necessities of life. (Of course, not everyone would choose to become a farmer, even if that choice were available, as some rare individuals would choose to develop other abilities, despite the fiscal hardship that such a choice would entail.) For society, however, such a choice would eventually lead to inefficiency, as it would lead many individuals to become farmers, even when society would have valued their skills more highly in some other sector of the economy.³⁴⁶

345. See Baxter, 76 Yale L. J. at 268-69 (cited in note 12); Hurt and Schuchman, 56 Am. Econ. Rev. at 425, 430 (cited in note 12); Plant, 1 *Economica* at 170 (cited in note 12).

346. In theory, the more efficient food producers could buy out the less efficient food producers and thereby prevent too many individuals from remaining in the food production sector of the economy. In the real world, however, transaction costs and uncertainty would prevent such contractual agreements from reducing society's investment in the food production sector to an optimal level.

In terms of unfairness, such a property regime would, for those rare individuals who choose to follow a non-farming career path, or if the state allows no further entry into the food production market, establish a hierarchy with workers in the food production sector of the market at the top, and workers in every other industry underneath. While the engineer, the artist, and the scholar would work for a crust of bread and a place to sleep, those who controlled food production would have not only their castles on the hill, but substantial control over the lives of those beneath them.

Not surprisingly, this description of the results of such a property regime closely parallels life in historical communities where a particular group had control over an essential of life, such as feudal England, where landed nobility effectively controlled production of and access to food, or ancient Egypt, where the royalty controlled access to water. Of course, works of authorship are not as essential to life as food and water, so the unfairness and inefficiency that establishing a value-based return in the authorship sector of the economy would create would not be quite as strong as the unfairness and inefficiency that would result from establishing a value-based return in a more essential sector of the economy. As a result, even if copyright were to enable authors to price discriminate perfectly, many whose creativity lay outside the authorship area would choose to develop their own skills, rather than become authors. Moreover, those who choose not to become authors would not become serfs of the authorship community, in the fashion of feudal England. Nevertheless, if the inefficiency and unfairness associated with a value-based return on authorship would not be as serious in degree as they would be for a monopoly on food production, substantial inefficiency and unfairness would result. While not everyone would choose to become authors given the value-based return available in that sector of the economy, many would so choose, even when society would have valued their skills more highly in some other sector of the economy. And if we cannot say that establishing a value-based return for authors would create a serf/nobility community, where authors were the nobility, we can say that such a property regime would award authors a disproportionate share of society's wealth.

In any event, because the efforts and labors of so many play an essential role in creating a work's market value, one cannot assign the market value of any given copyrighted work to the author simply as a factual matter. As Professor Ronald Coase has suggested with respect to joint cost issues: "The traditional approach has tended to obscure the nature of the choice that has to be made. The question is

commonly thought of as one in which A inflicts harm on B and what has to be decided is: How should we restrain A? But this is wrong. We are dealing with a problem of reciprocal nature."³⁴⁷ Similarly, the issue in intellectual property is commonly thought of as one in which A's intellectual effort adds value to our society, and what has to be decided is: How should we reward or compensate A? But this conception is also wrong. In a market economy, the value of A's effort is invariably joint, reflecting the contributions of everyone, and the proper question is: How should we allocate that joint value among those who have contributed to it?

As a result, when we assign a greater share of a work's value to one person rather than another because we perceive that person as being the principal or primary cause of the value, that perception necessarily entails a judgment about the relative value of the various types of labor and investment that produced the work's joint value. Allocating the joint value of the new work, therefore, calls not for a factual decision that one person or another created the work and its value, but for a judgment as to what sort of investment and what sort of labor we should encourage. In recognizing the joint nature of the market value of a work of authorship, the question becomes: Why should we encourage investment in some tasks, and yet discourage investment in others? Allocative efficiency provides one answer to that question.

VI. COPYRIGHT, JOINT VALUE, AND ALLOCATIVE EFFICIENCY

The basic purpose of a property system, from an economic perspective, is to ensure that resources are allocated to their highest valued use. Since the Stationers' Company first articulated some of the basic economic arguments in favor of copyright,³⁴⁸ copyright proponents have advanced two basic arguments as to why copyright would

347. Ronald Coase, *The Problem of Social Cost*, 3 *J. L. & Econ.* 1, 2 (1960).

348. See Arber, ed., 1 *Transcript of the Registers* at 583-88 (cited in note 23). This 1643 petition by the Stationers' Company to renew its printing monopoly advanced six economic reasons for the renewal: (1) books were luxuries and so a monopoly would not create the same harm in this field as a monopoly over a necessity such as food would create, (2) a monopoly was essential to assure order in the book trade, (3) a monopoly would prevent both overproduction and underproduction of books, (4) a monopoly would reduce the costs and risks to the booksellers, (5) a monopoly would provide an essential incentive to professional authors, and (6) the widows and children of deceased authors would rely entirely on the monopoly for their living.

promote such allocative efficiency: (1) natural monopoly, and (2) ease of copying.³⁴⁹

In the very early days of copyright, the Stationers' Company sought to justify its printing monopoly based upon the natural monopoly character of the printing trade. Because printing entails a high fixed cost for the first copy of a work, and continually decreasing marginal costs for additional copies over the range of expected production, the Stationers' Company argued that competition would produce disorder in the market.³⁵⁰ A governmentally sanctioned printing monopoly would provide order, and would also require fewer resources to produce a given quantity of a work because a printing monopoly would ensure that only one printer incurred the high fixed costs initially required to print any given work. While the natural monopoly character of the printing industry may suggest the need for a governmentally sanctioned printing monopoly, governmentally sanctioned monopolies today, such as local utility services, are usually subject to governmentally imposed price regulations with respect to the end product.³⁵¹ Because such price regulations are not a central part of copyright, and because the compulsory licensing that might serve as a substitute for such price controls has proven anathema to

349. Copyright proponents sometimes advance a misrepresentation or misinformation argument as a third reason why copyright promotes allocative efficiency. Specifically, these commentators argue that copyright can ensure that consumers are not misled by prohibiting others from reusing elements of a copyrighted work that consumers and potential consumers have come to associate uniquely with a particular author. While there are serious weaknesses in this argument, trademark law already addresses this concern, see *Lamothe v. Atlantic Recording Corp.*, 847 F.2d 1403, 1406 (9th Cir. 1988) (describing how the Lanham Act prohibits "passing off"), and is, in any event, better suited to address this concern than copyright law. See Breyer, 84 Harv. L. Rev. at 290-91 (cited in note 5) (arguing that copyright law is not necessary to protect an author's dignitary interests); Hurt and Schuchman, 56 Am. Econ. Rev. at 424 (cited in note 12). See also Berne Implementation Act, Pub. L. No. 100-568, §§ 2(2), (3), 102 Stat. 2853 (1988); H.R. Rep. No. 100-609, 100th Cong., 2d Sess. 32-34 (1988). As a result, I will not consider the misrepresentation argument further in this Article.

350. Arber, ed., 1 *Transcript of the Registers* at 587 (cited in note 23):

A well regulated propriety of Copies amongst Stationers, making Printing flourish, and Books more plentiful and cheap; whereas Community (though it seeme not so, at first, to such as look lesse seriously, and intently upon it) brings in confusion, and many other disorders both to the damage of the State and the Company of Stationers also; and this will many wayes be evidenced. For first, If it be lawfull for all men to Print all Copies, At the same time severall men will either enviously, or ignorantly [i.e. of the other's impressions,] Print the same thing, and so perhaps undo one another, and bring in a great waste of the Commodities, whereby the State shall be at losse, and discord, and enmities will also follow, whereby Christianity it self shall be scandalized. Secondly, the fear of this confusion will hinder men from Printing at all, to the great obstruction of Learning, and suppression of many excellent and worthy peeces. [Works of] singular use and esteem, are now out of Print, and the age must still be deprived of them, for no man dares, or can with safety Print them.

351. See, for example, Richard A. Posner, *Economic Analysis of Law* 343-49 (Little Brown, 4th ed. 1992).

most copyright proponents,³⁵² most modern copyright proponents have abandoned the natural monopoly character of the publishing industry as a justification for copyright.

The second argument that copyright promotes allocative efficiency is that works of authorship are exceptionally easy to copy.³⁵³ As a result, in the absence of some form of legal prohibition, a competitor could copy the original work and thereby avoid many of the costs incurred by the original author. Such copying would permit the competitor profitably to market a competing version of the work at a lower price than would be profitable for the original author.³⁵⁴ Faced with intense price competition from a competing version of the work, the original author would be unable to price copies of her work so as to recover an adequate recompense for her initial investment in the original work.³⁵⁵ To the extent the author could earn an adequate recompense in another field, she may forego authorship in favor of this other field,³⁵⁶ even though society would have preferred the dedication of her efforts to authorship.³⁵⁷ Modern justifications of copyright from an economic perspective rest entirely on this second argument. Identifying the appropriate scope for copyright protection requires a more careful understanding of this argument.

352. The Berne Convention also largely prohibits the use of compulsory licenses. See Berne Convention arts. 11*bis*(2), 13(1) (authorizing compulsory licenses only with respect to the public broadcasting of literary and artistic works, and the making of sound recordings).

353. See text accompanying notes 18-24. Some have referred to the second issue in terms of free-riders or the public good character of works of authorship. See, for example, Goldstein, 1 *Copyright* § 1.2, at 9-10 (cited in note 5) ("[In the absence of copyright, as] soon as the first producer's volume reached the marketplace it would be accessible and freely replicable by all. . . . [A] competitor would enjoy free something for which the first producer had to pay"). The first label is not accurate. Because a copying competitor will usually purchase the copy of the original from which she copies, she is not a free-rider. The second label is somewhat more accurate, but it often seems to take on talismanic significance and can tend to mislead as much as inform. See Dennis S. Karjala, *Misappropriation as a Third Intellectual Property Paradigm*, 94 *Colum. L. Rev.* 2594, 2594-95 (1994) (noting that others have relied on "analytically confusing or inapt catchphrases" rather than careful analysis of the issue, and have failed to explain how we should identify "market failures"). Unfortunately, Professor Karjala's analysis suffers from the same weakness, though it does substitute his catchphrase "misappropriation" for the more common catchphrase "market failure." For a further discussion of the public good aspect of works of authorship, see Part VI.C.2.

354. See, for example, Breyer, 84 *Harv. L. Rev.* at 282 (cited in note 5).

355. See *id.*

356. Professor Machlup has identified four general categories of uses to which resources can be devoted: "(1) The production of consumer goods, (2) the production of capital goods, (3) the production of knowledge, and (4) the production of security from invasion and resolution." Machlup, *Economic Review* at 46 (cited in note 11).

357. See, for example, Mackaay, 13 *Harv. J. L. & Pub. Pol.* at 895 (cited in note 17).

A. Introduction: A Model of Investment Decisions

In order to explore the relationship between copyright and allocative efficiency, we begin by assuming first that individuals will dedicate their available resources, in the form of labor or capital, to those uses that they expect will bring the highest return on those resources; second that no uncertainty is present;³⁵⁸ and third that price discrimination³⁵⁹ is not possible. Given these assumptions, an investor's decision to make one investment rather than another will depend upon the risk-adjusted return she expects to earn on the available investments. When investing in a new product, the expected return will consist of two components.

First, in the absence of perfect competition,³⁶⁰ any new product will enjoy an initial lead-time period during which no reasonable sub-

358. We need not assume that there is no uncertainty for purposes of this analysis; we need only assume that there is no difference in the relative uncertainty associated with works of authorship as compared to other investments. Whenever an individual decides to invest in a product, there is always some risk that the predicted demand for, or cost of, the product will differ from the product's actual demand or cost. This inability to predict actual demand or cost is referred to as uncertainty. In a certain world, an individual faced with ten investment choices could rank the ten according to their expected return without making any mistakes. In the real world, however, individuals do face uncertainty, and so, at least in some cases, make mistakes in ranking the investments. As a result, in the real world an individual may invest in the sixth-best product, instead of one of the better products because of uncertainty. Uncertainty alone does not undermine the argument made in the text, however. So long as individuals are on average as correct in their rankings of investment choices with respect to works of authorship as they are with respect to other products—in other words, so long as there are “no relative differences in the degree of uncertainty,” Breyer, 84 Harv. L. Rev. at 297 n.68 (cited in note 5)—then the text's analysis remains accurate.

359. In the early part of the twentieth century, economists defined price discrimination as “[t]he act of selling the same article, produced under a single control, at different prices to different buyers.” Rebinson, *Imperfect Competition* at 179 (cited in note 11). Present day economists define price discrimination more broadly to include the “sale (or purchase) of different units of a good or service at price differentials not directly corresponding to differences in supply cost.” Scherer, *Industrial Market Structure* at 315 (cited in note 140). See also note 483.

360. Perfect competition exists when consumers can and will instantaneously switch to an identical substitute produced by a competitor if any one producer raises the price of her product. See, for example, Scherer, *Industrial Market Structure* at 10-11 (cited in note 140) (defining a homogeneous product). In a perfectly competitive world, copyright would provide the proper scope of protection if it simultaneously satisfied three requirements: (1) preventing competitors from obtaining any cost advantage by copying as compared to the cost to the original author of producing the work; (2) allowing competitors to market identical copies; and (3) allowing competitors to introduce such identical copies instantly upon the introduction of any new work. As discussed, copyright cannot simultaneously satisfy all three of these objectives. See text accompanying notes 108-19. The only way a competitor could instantly introduce identical copies would be to use copying technology that copyright must prohibit in order to prevent such a competitor from obtaining a cost advantage in producing her copies. As a result, while perfect competition presents an interesting theoretical norm, economic analysis of copyright should not assume that such competition exists. See, for example, Breyer, 84 Harv. L. Rev. at 299-302,

stitutes for the new product are available.³⁶¹ In the absence of exact substitutes, our investor's new product will initially face a downward sloping demand curve,³⁶² and our investor will have some degree of market power with respect to her product. To maximize her profit in this initial period, our investor will follow the usual profit-maximizing rule for a monopolist: produce that quantity at which marginal revenue and marginal cost are equal, and set the price at a level that

318-21 (cited in note 5); Fisher, 101 Harv. L. Rev. at 1710-12, 1715 (cited in note 5); Palmer, 12 Hamline L. Rev. at 288-300 (cited in note 143).

361. While there are always alternatives available to the consumer, we will assume that these alternatives are not perfect substitutes—in other words, consumers prefer (to some degree) the new type of novel over existing forms of entertainment, or the new type of soft drink over existing forms of liquid refreshment, or the new van over existing forms of transportation. See Chamberlin, *Monopolistic Competition* at 68-70 (cited in note 32) (stating that product differentiation provides consumers with a basis for preference); Edward Chamberlin, *Towards a More General Theory of Value* 71 (Oxford U., 1957):

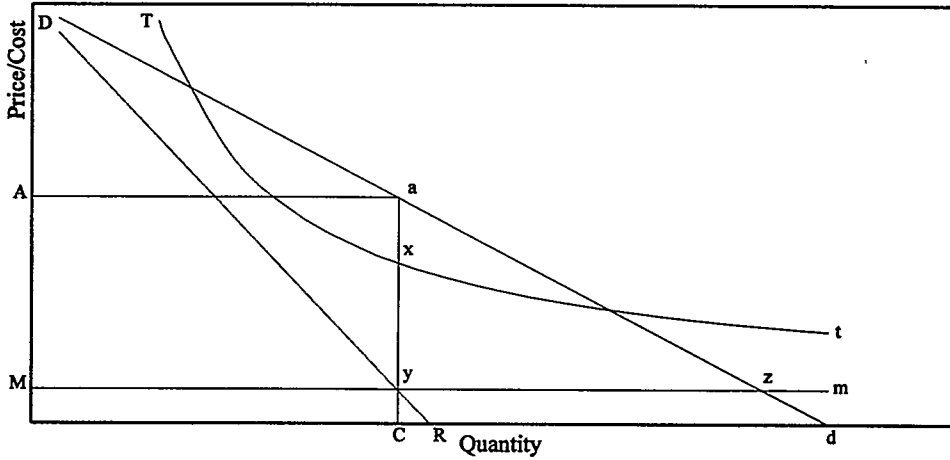
One can have a monopoly of Chateau D'Yquem, of all Sauternes, of all white wines from the Bordeaux region, or all Bordeaux wines, or of all white wines, of all wines, of all beverages, and so on indefinitely until we reach the limit of all economic goods. And whatever the area monopolized, the monopolist will always face competition in some degree from the wider area beyond its limits.

See also Mackaay, 13 Harv. J. L. & Pub. Pol. at 889, 908 (cited in note 17).

362. The availability of substitutes determines the relative ease with which a consumer can substitute some other product for the desired product and establishes the price elasticity of demand faced by the producer. If adequate substitutes are available, a slight increase in price will lead a large number of consumers to switch to substitute products, while a slight decrease in price will lead a similar number to switch from substitutes to the producer's product. See, for example, Robinson, *Imperfect Competition* at 50-51 (cited in note 11) (describing the effect of existing market alternatives on the price elasticity of demand for an individual firm). However, "[a]s long as the substitutes are to any degree imperfect, [the seller] still has a monopoly over his own product." Chamberlin, *Monopolistic Competition* at 67 (cited in note 32).

enables her to sell exactly that quantity.³⁶³ Such an initial pricing decision is shown in Figure 1.³⁶⁴

Figure 1. Lead-Time Period: Profit-Maximizing Price



If our investor has produced a profitable new product,³⁶⁵ she will be able to price the product during this lead-time period above the average total cost of the product. This difference between average total cost and price per unit of production is her profit per unit.³⁶⁶ To

363. See, for example, Scherer, *Industrial Market Structure* at 15 (cited in note 140). All demand and cost functions are presented in terms of discounted present value to account for the differing times at which sales are made and costs are incurred.

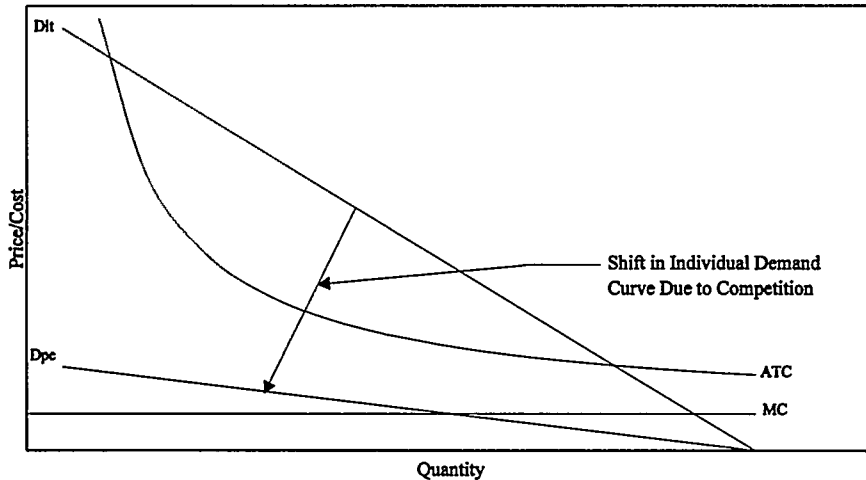
364. In Figure 1, our investor's lead-time period demand for her copies of her work is indicated by the line Dd ; her marginal revenue is indicated by the line DR ; her marginal cost is indicated by the line Mm ; and her average total cost is indicated by the curve Tt . To maximize her profit, our investor will produce and sell additional copies of her work until the marginal cost of producing and selling one more copy exceeds the marginal revenue from that sale. On Figure 1, this cross-over occurs at point y . She will, therefore, sell quantity C at price A to maximize her profit. Note that during this period, our investor will charge a price for copies of her work that is higher than her average total cost for the copies. Note further that the average total cost curve was calculated using a pro-rata share of the fixed costs associated with producing the work, with the remainder of the fixed costs attributed to the average total cost of the copies produced during the post-entry period.

365. I have assumed that the investor's product will earn a profit. This assumption is not essential to the analysis. Since we will eventually be dealing with relative profits from otherwise identical investments, the question is not whether either investment is profitable or unprofitable but how the difference in the ease with which two products can be copied affects the relative profitability of the two investments.

366. On Figure 1, the rent earned by our investor on each unit or copy sold during the lead-time period is reflected in the line ax .

the extent that our investor's profit during this lead-time period exceeds (on a risk-adjusted basis) that available for alternative investments, this rent (or real profit) will attract entry into the market by other investors who will offer competing versions of the new product in an attempt to capture some share of this new market. In general, such entry will continue so long as the profits available to the entrants in the new market exceed (on a risk-adjusted basis) those found in alternative investments.³⁶⁷ Once entry has reduced the available profits to a normal level, no further entry should occur, and we would say that the market has reached equilibrium.³⁶⁸ Figure 2 illustrates this process.³⁶⁹

Figure 2. Entry Makes Market More Competitive



367. See, for example, Scherer, *Industrial Market Structure* at 13 (cited in note 140).

368. See, for example, Robinson, *Imperfect Competition* at 93-95 (cited in note 11); Scherer, *Industrial Market Structure* at 13 (cited in note 140); Baxter, 76 *Yale L. J.* at 366 (cited in note 12).

369. Please note two points about our investor's curves. First, the post-entry demand curve for copies of our investor's work, *Dpe*, has fallen below her average total cost curve. This is correct. Her post-entry demand curve is a function of the equilibrium demand curves of her competitors. To the extent that her competitors can obtain some copying advantage, they will incur a smaller fixed cost to create their competing works than did our investor. As a result, their equilibrium point, which is reached when their demand curves become tangent to their average total cost curves, will occur at a demand level below the equilibrium demand level for our investor. To the extent the competing works duplicate the attraction of our investor's work more closely than previously available works or products, competition from such potential substitutes will flatten our investor's demand curve. To the extent that such competitors' average total cost curves fall below our investor's total cost curve, competition from such substitutes will reduce the demand for copies of our investor's work below her equilibrium level. Second, despite this competition, our investor's demand curve remains somewhat downward sloping. This, too, is correct. So long as our investor retains some ability to differentiate her copies from those of her competitors, demand for her product will remain somewhat inelastic.

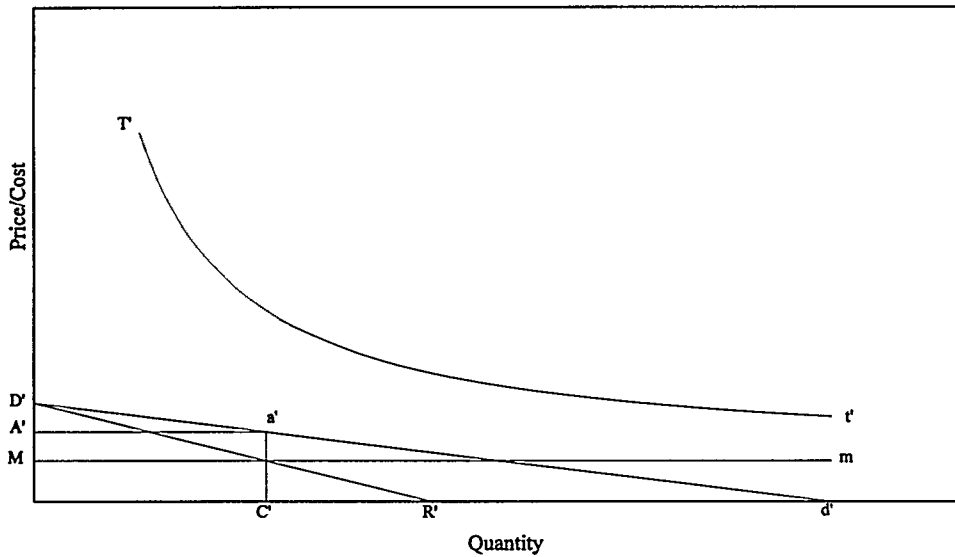
During this second post-entry period, our investor will again price her product to maximize her profit. Moreover, because of perceived differences between our investor's product and the available substitutes, our investor may retain some degree of market power.³⁷⁰ Competition from the available substitutes will almost certainly reduce the degree of market power our investor possesses during the post-entry period below the degree of such power she enjoyed during the lead-time period.³⁷¹ As a result, competition will

370. As others have recognized, an author will have the many other tools available to all marketors of goods that can be used to create or enhance market power. See, for example, Palmer, 12 Hamline L. Rev. at 287-300 (cited in note 143). See also Breyer, 84 Harv. L. Rev. at 299-308 (cited in note 5). While these commentators suggest a number of reasons why these devices ensure an adequate return in the production of more easily copied works, each of these tools are equally available to producers of less easily copied products. Thus, despite the ability of an individual to use these tools to increase her return, we should expect that if producers of more easily and less easily copied products are equally adept at using these devices, the averaged price received for investments in more easily copied products will still be comparatively less than that received for investing in an otherwise comparable but less easily copied product.

371. It is not simply the entrance of additional works that will reduce the price our investor can charge, but the entrance of additional works that duplicate the appeal of the original work more closely than previously available works or products. See Chamberlin, *Monopolistic Competition* at 196-97 (cited in note 32).

tend to constrain the price our investor can profitably charge in the post-entry period,³⁷² as Figure 3 illustrates.³⁷³

Figure 3. Post-Entry Period: Profit-Maximizing Price



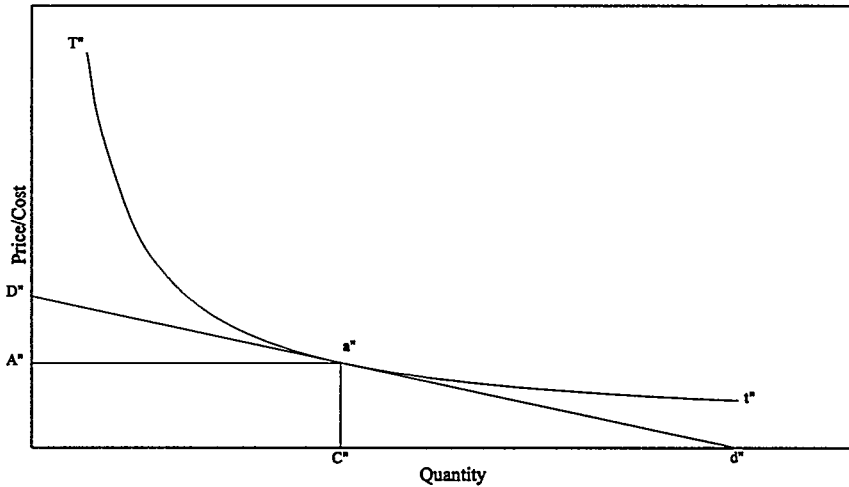
In order to simplify our discussion further, we can combine the lead-time and post-entry periods into a single hypothetical demand

372. See, for example, Leonid Hurwicz, *Effects of Entry on Profits under Monopolistic Competition*, in George R. Feiwel, ed., *The Economics of Imperfect Competition and Employment: Joan Robinson and Beyond* 305, 305 (N.Y.U., 1989) (concluding that each individual firm's profits decrease as the number of firms in that market increases).

373. While the scale of the x- and y-axes were arbitrarily chosen, I have retained the same scale for Figure 3 as I used in Figure 1, to give some sense of the drop that competition will cause in the profit-maximizing price level. In Figure 3, our investor's demand for copies of her work in this period is indicated by the line $D'd'$; her marginal revenue is indicated by the line $D'R'$; her marginal cost is indicated by the line mm ; and her average total cost is indicated by the curve Tt' . To maximize her profit, our investor will produce and sell additional copies of her work until the marginal cost of producing and selling one more copy exceeds the marginal revenue from that sale. She will therefore sell quantity C' at price A' to maximize her profit. Because her competitor's average total costs will fall below her costs, competition will force our investor to charge a price for copies of her work lower than her average total cost for the copies. Under the assumptions made in preparing Figure 3, our investor will sell fewer copies of her work in this post-entry period. As a result, the pro-rata share of her fixed costs attributable to this period are proportionally lower than the fixed costs share attributable to the lead-time period. Her average total cost curve for this period therefore falls somewhat below her average total cost curve for the lead-time period.

and pricing model. By totaling the average total cost curves and the quantities sold in the lead-time and post-entry periods, and averaging the profit-maximizing price charged in those periods, we can determine an averaged price, the average total costs, and the quantity sold for the two periods combined. We can use these values to generate a single set of curves that represents the total demand for our investor's version of the product, and the averaged price for the product as illustrated in Figure 4.³⁷⁴

Figure 4. Averaged Price for Combined Periods



By doing so, we generate a single number, the averaged price for the product, which we can use to represent the return our investor

374. Specifically, once we have determined the quantities and profit-maximizing prices for the lead-time and post-entry periods, the total quantity sold is simply the sum of the quantities sold in each period, or $Q_a = Q_i + Q_e$, where Q_a is the total quantity sold, Q_i is the quantity sold in the lead-time period, and Q_e is the quantity sold in the post-entry period. Given the profit-maximizing price for the two periods of P_i and P_e , we can calculate the averaged price received per copy sold as follows: $P_a = ((P_i * Q_i) + (P_e * Q_e)) / (Q_i + Q_e)$. Totaling the costs incurred in the two periods allows us to draw an average total cost curve for the two periods combined. Combining the total quantity sold, the averaged price received, and the average total cost curve for the two periods, we can construct a hypothetical demand curve for the two periods that is tangent to the average total cost curve at the point $Q_a P_a$. Tangency between the hypothetical demand curve and the average total cost curve will occur so long as the market for the creation of new works has reached equilibrium either through the entrance of additional authors, or through the capitalization of any rents into the fixed cost of the work. See Robinson, *Imperfect Competition* at 97-99 (cited in note 11); Scherer, *Industrial Market Structure* at 14 (cited in note 140) (depicting monopolistic competition in equilibrium in Figure 2.2(b)). See also Chamberlin, *Monopolistic Competition* at 194-95 (cited in note 32). The result is shown in Figure 4, with our investor's average total costs indicated by T'' , our investor's hypothetical demand curve indicated by D'' , our investor's averaged profit-maximizing price at A'' , with a total quantity sold of C'' .

expects to receive for any given investment and to examine how our investor will allocate her resources.³⁷⁵

B. Applying the Model: Allocative Efficiency and Copyright

1. Introduction: Ease of Copying and Return on Investment

To illustrate the use of the averaged price model, consider first a situation where an individual is trying to decide between two investments. One investment will produce Product A, a product more easily copied by competitors; the other will produce Product B, a product less easily copied. At this point, we will assume that the social values of these two alternative investments and the expenditure streams needed to produce the two products are identical. Moreover, to simplify our discussion at this point, we will assume that neither copyright, patent, nor trademark protects either product.

Given this set of assumptions, our model suggests that the investor would expect to receive a higher averaged price for her resources if invested in the less easily copied product than if invested in the more easily copied product. Three factors account for this difference. First, in the lead-time period, if all other factors are equal, the greater ease with which Product A can be copied means that competitors will produce competing versions of Product A more quickly than competitors will produce competing versions of Product B. The faster response by competitors will shorten Product A's lead-time, as compared with Product B's lead-time.³⁷⁶ Shortening the duration of the lead-time period may reduce the degree of market power our investor holds during this period,³⁷⁷ and will reduce the number of sales that will take place at the higher, more monopolistic price our investor expects to charge during the lead-time period.

375. In considering only two time periods, I have omitted consideration of a third, post-copyright period where a competitor would have a greater copying advantage. I have omitted such a period because the current duration of copyright renders the present value of the economic results in the post-copyright period sufficiently insignificant that they are essentially irrelevant to investment decisions.

376. See Breyer, 84 Harv. L. Rev. at 299-300 (cited in note 5) (describing an initial publisher's advantage of lead time).

377. If the lead-time period becomes sufficiently short, some consumers may decide to wait for the lower prices of the post-entry period, shifting demand from the lead-time period to the post-entry period.

Second, during the post-entry period, the greater ease with which competitors can copy Product A means that copying will give competitors a greater cost advantage than they could obtain by copying Product B. As a result, additional competitors will continue to enter the market for Product A beyond the point (and continue to reduce the market price for Product A below the level) at which equilibrium would have been reached for Product B. Third, again because Product A is easier to copy, competitors will likely be able to offer a more exact substitute for Product A than they will for Product B. A more exact substitute will reduce the extent to which our investor can expect to rely on product differentiation to retain some degree of market power during the post-entry period. Taken together, the greater cost advantage that competitors can obtain by copying Product A and the more exact nature of the substitutes the competitors will be able to offer will reduce the price our investor can expect to charge for Product A during the post-entry period, below the price she can expect to charge for Product B during the post-entry period.

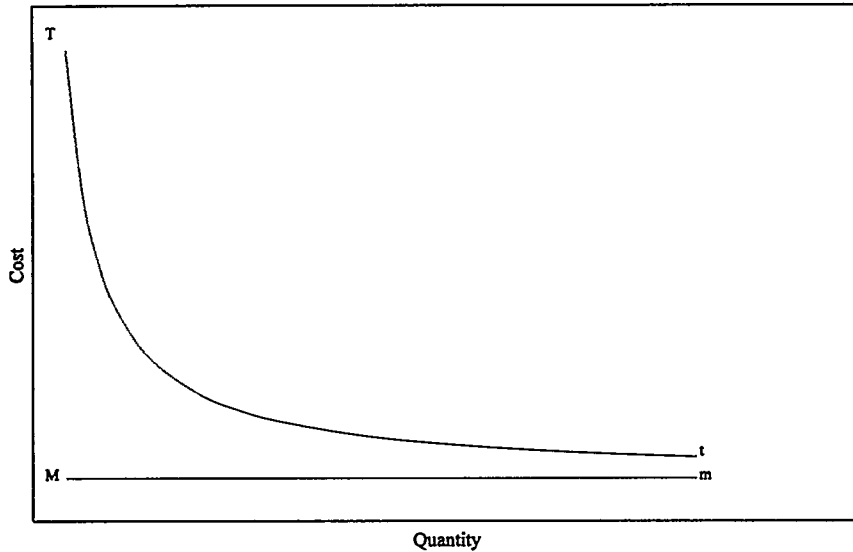
Thus, in both the lead-time and post-entry periods, our investor should expect to receive a lower price and, as a result, earn a lower return on an investment in Product A simply because Product A is more easily copied than Product B. If we constructed averaged demand and price curves for the two products, the demand curve would be flatter, and the averaged price would be lower for Product A than for Product B. Given this result, we can say that for two investments which produce products that are otherwise comparable in terms of cost and social value ("otherwise comparable" products), an investor will earn a higher return by investing in the less easily copied product, than by investing in the more easily copied product.

2. Averaged Price, Social Value, and Allocative Efficiency

We can extend this analysis to examine the effect that the relative ease of copying has on allocative efficiency by comparing a series of decisions made with respect to two sets of potential investments. Each set consists of five different potential investments, ranked by de-

creasing social value. The equilibrium average total cost function for each of the ten investments is identical,³⁷⁸ and is reflected in Figure 5.

Figure 5. Equilibrium Cost Functions



We will further assume that the corresponding investments in the two sets are of equal social value. Table 1 reflects this assumption.

TABLE 1
INVESTMENT OPTIONS
FOR EACH SET

Investment		Social Value
Set 1	Set 2	(thousands of \$)
1-A	2-A	1,000
1-B	2-B	750
1-C	2-C	500
1-D	2-D	250
1-E	2-E	50

Based upon our averaged price model and our discussion of how the ease of copying will likely affect the averaged price an investor will

378. In adopting a uniform curve for the five investments, I have implicitly assumed that any rent that would have been earned in an investment has been capitalized into the cost curve. See note 282.

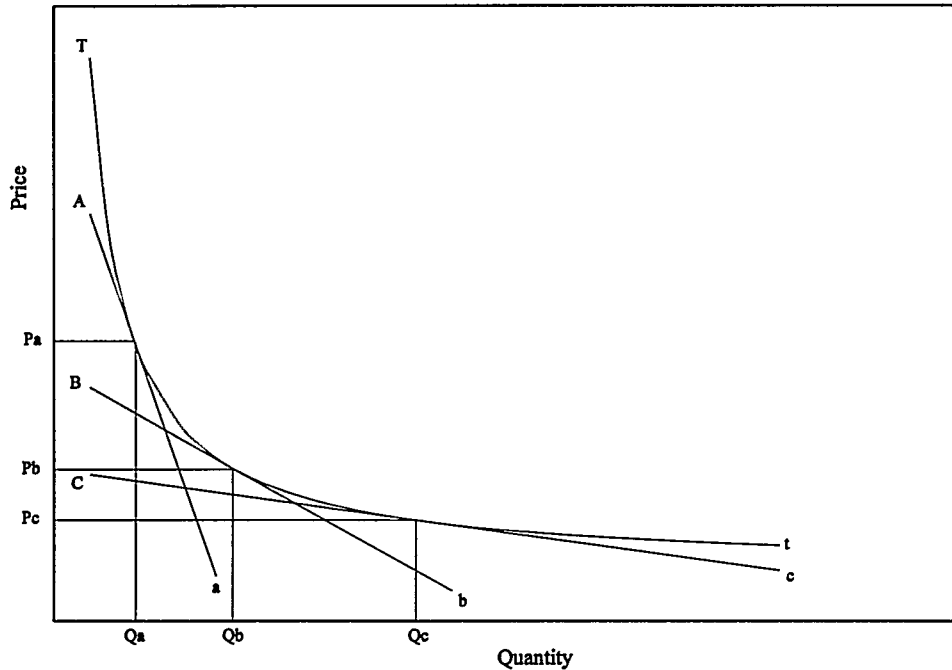
expect to earn on any given investment, we can make some predictions on how our investor will invest her resources and identify the circumstances in which relative ease of copying will lead to allocative inefficiency.

First, we will assume that demand during the lead-time period, and the corresponding rent, will increase as the social value of the investment increases.³⁷⁹ Because of these increases, when we average our investor's lead-time and post-entry period demand curves and pricing decisions, a more valuable investment generates a somewhat steeper averaged demand curve, and a higher averaged price, than does a less valuable investment. Thus, within each set of investments, Investment A will return a higher averaged price than

379. A product will be more valuable to society if it generates greater consumer demand for a given investment, generates given consumer demand for a lower investment, or some combination of these two. A change in the social value of a product, either because of lower costs or higher demand, will be reflected in a change in the lead-time price an investor can charge because the profit-maximizing price during the lead-time period is a (mathematical) function of the product's expected demand and average total cost. (While we can use the intersection of the marginal revenue curve with the marginal cost curve as a method of identifying the quantity a monopolist should produce to maximize her profit, we can also identify the profit-maximizing price and production levels using the average cost and pricing curves. See Chamberlin, *Monopolistic Competition* at 192-93 (cited in note 32). Some commentators associate the practice of setting marginal revenue equal to marginal cost exclusively with a monopolist; yet, every profit-maximizing producer, even one in a perfectly competitive market, will follow that practice. *Id.* at 193. If we expect a greater demand for the product, either in terms of price elasticity or in terms of the quantity demanded at a given price, then our profit-maximizing monopoly price will be higher than it would have been for a product with a lower expected demand. As a result, an expected increase in demand will increase our investor's lead-time profit-maximizing price. The same is true for a product that generates a given demand at a lower cost. The economic literature on this point has focused on the extent to which an increase in cost, or a tax, will be passed on to the consumer and on the extent to which it will be absorbed by the monopolist. In analyzing this issue, commentators reach the general conclusion that part of the additional cost will be passed on to the consumer, and part will be absorbed in the form of reduced profits for the monopolist. See, for example, Louis Philips, *The Economics of Price Discrimination* 7 (Cambridge U., 1983) ("[I]t is well known, indeed, that a tax, for example one imposed on a commodity sold under monopolistic conditions, is only partially reflected in the price of a profit-maximizing firm"). In general, we should expect the same sort of sharing to occur with any increase in a product's value, whether due to increased demand or decreased costs. While we can devise situations in which the profit-maximizing price during the lead-time period will be higher for a product of lower social value, so long as the demand curves are downward sloping and reasonably continuous, we should expect that the extent of the lead-time price will more or less directly reflect the social value of the product.

Investments B, C, D, or E; Investment B will return a higher averaged price than Investments C, D, or E; and so on, as Figure 6 reflects.³⁸⁰

Figure 6. Averaged Prices at Equilibrium



Second, we will further assume that a competitor can more easily copy a product from Set Two than a product from Set One. The greater ease with which competitors can copy the Set Two products means that the demand curve and the averaged price for any one of

380. Because tangency reflects the profit-maximizing point, see, for example, Chamberlin, *Monopolistic Competition* at 192-93 (cited in note 32), the profit-maximizing price will be higher and the quantity sold lower for a product with a steeper demand curve than it will be for a product with a less steep demand curve. Thus in Figure 6, Product A has the steepest demand curve, reflected by the line *Aa*, of the three investments depicted. It also has the highest profit-maximizing price, *Pa*, and the lowest quantity sold, *Qa*, of the three investments depicted. Product B has the second steepest demand curve, reflected by the line *Bb*. It also has the second highest averaged price, *Pb*, and the second lowest quantity sold, *Qb*. Product C has the flattest demand curve, reflected by the line *Cc*, and also has the lowest averaged price, *Pc*, and the greatest quantity sold, *Qc*.

the Set Two investments will be flatter and lower, respectively, than the curve and price for the corresponding Set One investment, for the three reasons previously discussed.³⁸¹ Thus, Investment 1-A will return a somewhat higher averaged price than Investment 2-A; Investment 1-B will return a somewhat higher averaged price than Investment 2-B; and so on. How much higher the averaged price for Investment 1-A will be than Investment 2-A turns on the relative ease with which a competitor may copy the 2-A product as compared to the 1-A product. As the 2-A product becomes easier for a competitor to copy, and as copying enables the competitor to produce a more perfect substitute for the original 2-A product, the difference between the elasticity of the averaged demand curves and between the averaged prices for the 1-A and 2-A products will become more pronounced. We can use Figure 6 again by considering demand curves *Aa*, *Bb*, and *Cc*, to reflect the changes in the demand curve for any given product as it becomes easier for competitors to copy. For example, we could take demand curve *Aa* to represent the product's demand curve in a system where the law provides extensive protection against copying; demand curve *Bb* to represent the product's demand curve in a system where the law provides only limited protection against copying; and demand curve *Cc* to represent the product's demand curve in a system where the law provides no protection against copying.

Given this analysis, we can state that the greater ease with which a competitor can copy the Set Two products will cause allocative inefficiency whenever the greater ease of copying causes the averaged price of a more valuable Set Two investment to fall below the averaged price of a less valuable Set One investment. Once this occurs, a rational individual will invest in the less valuable Set One product, rather than the more valuable Set Two product, because the greater difficulty competitors face in copying the Set One product will ensure the individual a higher price for her resources if invested in the less valuable Set One product. Whether and to what extent allocative inefficiency will result in the real world is an empirical matter that will depend on the relative ease with which a competitor can copy a Set Two product as compared to a Set One product.

For example, if the Set Two products are only slightly easier for a competitor to copy than the Set One products, then the averaged price for each Set Two product might be only slightly below the averaged price for the corresponding Set One product, as Table 2 reflects.

381. See Part VI.B.1.

TABLE 2
AVERAGED PRICE PER UNIT:
SET TWO PRODUCT SLIGHTLY EASIER TO COPY

Investment (#)	Averaged Price (\$ per unit sold)	Investment (#)	Averaged Price (\$ per unit sold)
1-A	100	2-A	95
1-B	75	2-B	71
1-C	50	2-C	47
1-D	25	2-D	23
1-E	5	2-E	4

Under these assumptions, if an individual had sufficient resources to commit to six, and only six, of these investments (and these were the only investments available),³⁸² then a rational individual would commit his available resources to Investments 1-A, 1-B, 1-C, 2-A, 2-B, and 2-C in order to receive the highest price for his resources. Given the assumptions we have made in this example, no allocative inefficiency results. Even though the Set Two products are somewhat easier to copy than the Set One products, the difference in the relative ease with which a competitor can copy the Set Two products is insufficient to lead individuals to invest their resources in a less valuable Set One product.³⁸³

On the other hand, if the Set Two products are substantially easier to copy than the Set One products, then the averaged price for

382. As the presentation of the example suggests, I have not assumed that the individual is facing perfectly competitive markets or that her resources are infinitely divisible. I have rejected the perfect competition assumption because it is not compatible with the existence of copyright protection specifically, see note 360, nor is it an accurate representation of real-world markets generally. Compare Scherer, *Industrial Market Structure* at 10 (cited in note 140). I have chosen not to use the infinite divisibility assumption for similar reasons. When creating a new work, an author rarely sets out to create one half of a painting; she either paints the work, or she does not. While an author does have some room to adjust the size of the painting, or the number of copies of her work that she will print, her decision remains more of an "on-off" decision, create the work or not, than a "how much of" decision. See Chamberlin, *Monopolistic Competition* at 198-99 (cited in note 32) (stating that assuming that resources are infinitely divisible does not eliminate monopolistic competition); Scherer, *Industrial Market Structure* at 10 (stating that a perfect divisibility assumption is not essential to economic analysis).

383. If we assume an infinite number of possible Set One or Set Two investments ranging in profitability from Investment A to Investment E, and further assume that investment resources are infinitely divisible, then we would expect to see some degree of allocative inefficiency even when the Set Two products are only slightly easier to copy than the Set One products. Instead of seeing exactly three Set One investments and three Set Two investments, we would expect to see slightly more Set One investments than Set Two investments, perhaps 3.1 Set One investments and 2.9 Set Two investments.

each Set Two product would be lower, perhaps substantially, than the averaged price for the corresponding Set One product. Table 3 illustrates this phenomenon.

TABLE 3
AVERAGED PRICE PER UNIT:
SET TWO PRODUCT SUBSTANTIALLY EASIER TO COPY

Investment (#)	Averaged Price (\$ per unit sold)	Investment (#)	Averaged Price (\$ per unit sold)
1-A	100	2-A	40
1-B	75	2-B	30
1-C	50	2-C	20
1-D	25	2-D	10
1-E	5	2-E	2

Under these assumptions, if an individual had sufficient resources to commit to six, and only six, of these investments (and these were the only investments available), then a rational individual would commit her available resources to Investments 1-A, 1-B, 1-C, 1-D, 2-A, and 2-B in order to receive the highest price for her resources. Given the assumptions we have made in this example, the greater ease with which a competitor can copy the Set Two products results in allocative inefficiency. Because of the greater ease with which a competitor can copy the Set Two products, a rational investor will make the socially less valuable 1-D investment, rather than the socially more valuable 2-C investment, in order to receive the higher price for her resources. A property system that left the Set Two products substantially easier to copy would, in this example, lead to allocative inefficiency and a net loss to society of \$250,000.

Again, whether and to what extent allocative inefficiency will result in the real world is an empirical question. To the extent that we can identify a class of products that are, on average, easier to copy than most other products, we can assert that in the absence of some form of legal prohibition on copying, such products will likely be underproduced. Note that we have not concluded that in the absence of a legal prohibition on copying such easier-to-copy products will not be produced at all. If we hold every other factor constant, the lead-time price, and hence the averaged price received, will increase as the social value of a product increases.³⁸⁴ As a result, an individual will re-

384. See note 379.

ceive a higher price for her resources when invested in a more easily copied product, which is sufficiently more valuable, than she would receive for investing in a less easily copied but sufficiently less valuable product. Thus, in our second example, even though the Set Two products were substantially easier to copy than the Set One products, the averaged price received for investing in products 2-A and 2-B was higher than the price that would have been received for those resources invested in product 1-E. As a result, we should not accept at face value the Stationers' Company's assertion that, without copyright, no works of authorship at all would be created.³⁸⁵ Even if works of authorship are, as a class, much easier for competitors to copy than the products that copyright leaves unprotected ("non-work products"),³⁸⁶ sufficient incentives will remain for authors to produce those works with the highest social value because competition is not perfect.³⁸⁷ Yet, to the extent that works of authorship are as a class

385. See text accompanying note 23.

386. As discussed, see note 24, this assumption is not true for some types of works of authorship. However, most of the products for which the assumption is false, for example an original of a work of fine art by a recognized painter, require copyright protection because of a purchaser's ability to use her copy to serve a large number of derivative users. See Part VI.C.2. To the extent that some works of authorship are neither relatively easy to copy, nor susceptible to such derivative use, the inclusion of such articles as works of authorship reflects either the inevitably imprecise nature of categories or the romantic view of copyright as a protection for artistic works that creeps into copyright from time to time. See Peter Jaszi, *On the Author Effect: Contemporary Copyright and Collective Creativity*, 10 *Cardozo Arts & Entor. L. J.* 293, 298-99 (1992). We can find an example of such a romantic view in *Feist*, 499 U.S. 340 (1991), when the Court quoted the constitutional provision that copyright is "[t]o promote the Progress of Science and the useful Arts," 499 U.S. at 349 (quoting U.S. Const., Art. I, § 8, cl. 8), and then rephrased that provision at the end of the same paragraph as "the progress of science and art," *id.* at 350. The substitution of "art" in the ordinary sense for "Arts" in the constitutional sense of "useful Arts" or industrial arts, see *Graham v. John Deere Co.*, 383 U.S. 1, 5-6 (1966) (treating "useful arts" as referring to "industrial arts"), reflects a common, but mistaken, belief that copyright has always been, is, and should be about protecting creative and artistic endeavours. See also H.R. Rep. No. 101-735, 101st Cong., 2d Sess. 12 (1990) (justifying copyright protection for architectural works on the basis that such works are "a work of art" and an "art form," and by suggesting that "[a]rchitecture is not unlike poetry"). Yet, the first copyright statute did not share this romantic conception of copyright, protecting maps and charts, but not artistic works of any sort. See Act of May 31, 1790, ch. 15, § 1, 1 Stat. 124 (protecting an author's rights in a map, chart, or book).

387. Despite this, the argument that without copyright there would be no works at all remains a popular rhetorical strategy among copyright proponents. See *International News Service v. Associated Press*, 248 U.S. 215, 241 (1918) ("Indeed, it is one of the most obvious results of defendant's theory that, by permitting indiscriminate publication . . . it would render publication profitless, or so little profitable as in effect to cut off the service by rendering the cost prohibitive in comparison with the return"); Anthony Trollope, *An Autobiography* 90 (U. Cal., 1947) ("Take away from English authors their copyrights, and you would very soon take away from England her authors"); Hearings at 142 (cited in note 324) ("Unless we do something to insure that the creators of the material are not exploited by the electronics revolution, that same revolution which will make it possible for almost every household to have an audio and

substantially easier for competitors to copy than most non-work products, we should expect that unless the law provides some protection against copying for the more easily copied works of authorship, works of authorship will be "underproduced."³⁸⁸ Specifically, resources will be devoted to producing additional non-work products rather than to producing additional works of authorship, even though society would value the additional works more highly.³⁸⁹ To the extent that the marginal³⁹⁰ administrative costs of providing legal protection against such copying would be less than

video recorder will surely undermine, cripple, and eventually wash away the very industries on which it feeds") (statement of Howard Oliver, executive secretary, American Federation of Television and Radio Artists); *id.* at 556.

388. As the textual context suggests, underproduction refers to the production of fewer works than an optimal allocation of resources would require. We can label any given production level as underproduction only so long as investing additional resources in creating additional works of authorship would generate greater social value than the alternative uses to which these resources would otherwise be devoted.

389. See Hurt and Schuchman, 56 *Am. Econ. Rev.* at 429-30 (cited in note 12); Machlup, *Economic Review* at 58-60 (cited in note 11). See also Mackaay, 13 *Harv. J. L. & Pub. Pol.* at 895 (cited in note 17).

390. If the resources are not used to produce works of authorship, presumably they will be used elsewhere in our market economy. Wherever they are used, they will require some form of legal protection against theft or other forms of improper interference, such as breach of contract. Therefore, the proper comparison is between the additional administrative expense that would have been required to protect the resources against improper interference had the resources been used to create a non-work product and the additional administrative expense that would have been required to protect the resources when used to create a work of authorship. As a general matter, I assume that the marginal administrative expense associated with protecting the resources when invested in a work of authorship is likely to be similar to the marginal administrative expense associated with protecting the resources in a non-work product. In both cases, the threat of legal action alone will usually suffice to deter improper interference, thus legal action will not usually be necessary.

Three differences between tangible and intangible property create a relevant difference between the marginal administrative expenses of protecting these resources. First, to the extent that the law is less clear about the boundaries of intangible property than tangible property, legal action to enforce the intangible boundaries may occur more often, either because the owner of the intangible property mistakenly believes that someone has crossed her property boundary when they have not, or because another mistakenly crosses the owner's property boundary thinking she did not. See Gordon, 41 *Stan. L. Rev.* at 1346 (cited in note 143). Second, people may resist the creation of intangible property to a greater extent than they resist the creation of tangible property. See *id.* This may occur either because the boundaries are less certain, or because the harm to the owner is harder to perceive, or because interference with the intangible property may be both easier to accomplish and easier to escape detection while accomplishing. Third, to the extent the legal scope of protection changes more often with respect to intangible property rights than tangible property rights, that higher rate of change may reinforce the first two differences by making intangible property seem more transient and less justifiable than tangible property. For these three reasons, the marginal expense associated with protecting resources devoted to the creation of additional works of authorship may be slightly higher than the marginal administrative expense associated with protecting resources devoted to the creation of a non-work product. Because we are dealing with the marginal administrative expense required to expand copyright protection slightly, the difference, however, is likely to remain small.

the lost social value such allocative inefficiency would produce, legal protection that limits the copying of works of authorship is desirable.

3. Allocative Efficiency and the Proper Scope of Copyright Protection

The question then becomes: If works of authorship are easier as a class for competitors to copy,³⁹¹ how much protection should copyright provide? Because we have framed our analysis entirely in terms of more and less easily copied products, we can summarize our reasoning as follows. A property system that makes (or leaves³⁹²) one class of products substantially easier to copy than other products will contain allocative inefficiency since the market will underproduce the more easily copied products, while overproducing³⁹³ the less easily copied products.

In the previous Section, we used this reasoning to identify the central economic justification for a legal prohibition on copying works of authorship. To the extent that competitors could, in the absence of legal protection, copy works of authorship more easily than non-work products, protecting works of authorship against at least some copying is desirable to prevent allocative inefficiency. A failure to provide such protection would lead individuals to expect a higher price for their resources if invested in a non-work product than in an otherwise comparable work of authorship. This failure would cause the market, at the margins, to underproduce works of authorship and to overproduce non-work products.

391. As previously noted, I will not focus in this Article on the imperfect fit between the products copyright defines as works, and the extent to which each such work can be more easily copied than the average non-work product. See note 386.

392. As a starting point, technology determines the ease with which any given work or product can be copied. See Adelstein and Peretz, 5 *Intl. Rev. L. & Econ.* at 213-17 (cited in note 257) (describing competition between a seller and a "free rider" as copying and protection that technologies advance). The law, by prohibiting certain forms of copying, can make copying more difficult. The law cannot, however, make a product easier to copy than the available technology permits. At best, the law can leave competitors free to make use of the best available copying technology.

393. As the text suggests, overproduction refers to the production of more of a particular type of product than an optimal allocation of resources would require. We can label any given production level as overproduction if and only if we could take resources away from such production, dedicate those resources to some other use, and generate thereby a net increase in social value. Because available resources are finite, overproduction in one sector of the economy must be matched by underproduction in the remaining sectors of the economy, and vice versa. See Machlup, *Economic Review* at 45-46 (cited in note 11) (describing how, when "inventive activity" expands, another activity must contract).

What has not been generally recognized, however, is that this reasoning also defines the appropriate limits for such legal protection. After all, copyright can and indeed is intended to make works of authorship more difficult for competitors to copy, both directly by prohibiting later authors from copying expression from earlier works and indirectly by prohibiting later authors from producing unduly similar works.³⁹⁴ While the difficulty a competitor will experience in copying without violating the law is not a practical one, in other words a lack of copying technology, copyright's legal prohibition on copying effectively prohibits the use of the most effective copying techniques and thereby increases the expense and difficulty of imitating a copyrighted work. If copyright allows so little copying that copyrighted works become more difficult for a competitor to copy than a non-work product, then copyright would itself generate allocative inefficiency. By rendering works of authorship less easily copied than non-work products, copyright would lead an individual to expect a higher price for her resources invested in a work of authorship than she would expect for them if invested in an otherwise comparable, but easier to copy, non-work product. Such protection would lead the market, at the margins, to underproduce non-work products and to overproduce works of authorship. To avoid such allocative inefficiency, copyright must not render works of authorship more difficult, on average, for a competitor to copy than the average non-work product.

Our analysis, thus, generates two conclusions. If the legal barrier to copying that copyright provides does not make it as difficult to copy a work of authorship as it is to copy a non-work product, then works of authorship will be underproduced because they will remain more easily copied than non-work products. Copyright must, therefore, make works of authorship at least as difficult for a competitor to copy as non-work products. On the other hand, if the legal barrier to copying that copyright provides makes it more difficult to copy a work of authorship than a non-work product, such legal protection would lead the market to underproduce non-work products. Such broad copyright protection would render non-work products more easily copied, as a practical and legal matter, than works of authorship. As a matter of efficiency, copyright must therefore render works of authorship neither more nor less difficult for a competitor to copy than non-work products.

394. See text accompanying notes 25-32.

By ensuring that works of authorship are equally difficult to copy, copyright would ensure an individual a comparable price for her resources whether invested in an additional work of authorship or an additional non-work product, when the two products generate comparable marginal social value. It would, as best as a real world market can, ensure that an individual would receive a higher price for her resources if invested in the more valuable product, without regard to whether that product is a work of authorship or a non-work product. Such consonance between price and social value would tend to lead rational individuals to allocate their resources to the highest valued use.³⁹⁵ This consonance would, therefore, tend to promote allocative efficiency. Moreover, because such protection would ensure the optimal allocation of society's available resources, we can say that such protection would assign an author a fair share of the joint value associated with her work of authorship and would ensure an author a reasonable opportunity to recover a fair return on her authorship investment.³⁹⁶

C. Applying the Test: Competitive and Noncompetitive Copying

Having defined copyright's appropriate scope in general terms, we must now determine what sorts of copying copyright must prohibit to ensure that works of authorship are as difficult, but no more so, for a competitor to copy as the average non-work product. In order to explore this issue, the following Sections consider two different types of copying that might occur. The first examines the extent of protection

395. See Hayek, *Individualism* at 21 (cited in note 17) (stating that the rewards a creator receives should relate to the objective results of his efforts and the utility of his efforts to others); Hurt and Schuchman, 56 *Am. Econ. Rev.* at 429-30 (cited in note 12); Mackaay, 13 *Harv. J. L. & Pub. Pol.* at 872-73, 875-76, 895 (cited in note 17). See also Machlup, *Economic Review* at 62-66 (cited in note 11).

396. Both the cases and the Copyright Act refer to ensuring an author a fair share of the value of her work. See *Sony*, 464 U.S. at 432; *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975) (stating that the goal of copyright law is to secure a fair return for the author's labor); *Mazer*, 347 U.S. at 219; 17 U.S.C. § 107(4) (defining as one fair use factor "the effect of the use upon the potential market for or value of the copyrighted work"). Neither, however, reflects any clear sense of what portion of a work's joint value would be fair. See Goldstein, 1 *Copyright* § 1.1, at 8 (cited in note 5). From an allocative efficiency perspective, we can define a fair share as that share which tends to promote the optimal allocation of society's resources. That meaning is the share or return I will be referring to when I refer to a fair share or a fair return. In more practical terms, a return on or share of a work's joint value will promote allocative efficiency and hence be fair if it is comparable for a work of authorship to what it would be for a non-work product of similar social value.

copyright should provide against someone copying from a work of authorship in order to produce a product that consumers would consider a substitute for the work in its original form ("competitive" uses). The second examines the extent of protection copyright should provide against someone copying from a work of authorship in order to produce a product that consumers would not consider a substitute for the work in its original form ("noncompetitive" uses).

1. Competitive Uses: Reproduction

Three factors contribute to the allocative inefficiency that a relative ease of copying can create: (1) the speed of copying, (2) the cost advantage obtained by copying, and (3) the extent to which copying was used to produce a more perfect substitute for the original.³⁹⁷ In order to determine copyright's proper scope, we need to take the following three steps. First, we need to determine the extent to which copying enables a competitor of a non-work product, behaving reasonably,³⁹⁸ to produce a competing version of the product (a) more quickly, (b) at a greater cost advantage, and (c) that substitutes more perfectly for the original, as compared to a competitor producing a competing version of the product without copying. Second, we need to determine how various levels of copyright protection would affect the copying advantages available to a work's competitors. Third, once we have identified these two sets of values, we can identify the appropriate scope of copyright protection as that protection that reduces the copying advantages, in terms of speed, cost savings, and degree of substitutability, of a competitor with respect to the typical work of authorship to a level comparable to that available with respect to the typical non-work product.

Before examining the empirical evidence available to undertake this three-step analysis,³⁹⁹ this approach immediately suggests several important considerations.

397. See text accompanying notes 375-78.

398. To avoid the moral hazard that relying on the actual costs of producing the original or a copy of a work would create, courts should base their decision on whether a competitor obtains an unreasonable copying advantage based upon an objective, or reasonable, estimate of the costs of producing or copying a work. See Arrow, *Economic Welfare*, in *Rate and Direction* at 613 (cited in note 5) (discussing moral hazards).

399. The proponents of copyright have successfully and repeatedly persuaded Congress to expand copyright's protection without any empirical evidence establishing that such an expansion in copyright's protection is necessary or desirable.

a. General Considerations

First, because a competitor of non-work products can obtain some advantages by copying, copyright should not prohibit every form or instance of copying. Rather, it should prohibit only that copying that gives a competitor a disproportionate copying advantage with respect to works of authorship as compared to non-work products. For example, competitors seeking to produce a competing version of either a new soda drink or a new computer program can both obtain some copying advantages by examining the original carefully and attempting to imitate those characteristics of the original that made it a success.⁴⁰⁰ To the extent that this sort of copying, which some might call reverse engineering,⁴⁰¹ provides a similar degree of copying advantage to a competitor in producing a competing version of a non-work product, copyright should not prohibit such copying. Copyright should prohibit only that copying which allows a competitor to obtain a disproportionate copying advantage with respect to a work of authorship, as compared to the advantage available with respect to a non-work product.

Second, such a disproportionate copying advantage is most likely to arise where a competitor can use a mechanical form of copying. As a general rule, mechanically copying a work, whether through the use of a dual-head videocassette recorder, a dual-tape deck, or two computer disks, will provide a copying competitor the most significant advantages in terms of the time and expense saved in producing a competing version of a work and the ability to produce a more perfect substitute for the original. When a copying process requires more human intervention and skill, it becomes more time consuming and more expensive, and it is somewhat less likely to result in a perfect substitute for the original. For example, if a competitor uses

400. Thus, the fact that a competitor has taken the heart of a copyrighted work, in that she has taken what makes the work most valuable to consumers, should be irrelevant, as that is the essence of successful competition whether done with respect to a copyrighted work or a non-work product. Compare *Campbell*, 114 S. Ct. at 1176 (stating that taking the heart of the original does not make copying excessive in relation to a purpose of parody), with *Harper & Row*, 471 U.S. at 564-65 (taking a small portion of a work's expression constitutes infringement if the defendant "took what was essentially the heart of the book"). The question should be whether the method and extent of the copying would enable the competitor to obtain a disproportionate copying advantage in producing a competing work, as compared to the copying advantage available with respect to a non-work product.

401. See, for example, Samuelson, et al., 94 Colum. L. Rev. at 2341 (cited in note 13) (suggesting that the reverse engineering of computer programs is currently a "manual and very tedious process involving considerable effort to learn anything of value").

computer-enhanced photography and a high-quality color printer to copy a *Superman* comic book, such copying is likely to provide the competitor a significant copying advantage.⁴⁰² While the competitor would still have to incur printing and distribution expenses for her competing version of the comic book, such copying is likely to save the competitor substantial time and money and is likely to yield a more perfect substitute for the original, when compared to producing a competing comic book without reference to the original *Superman*. In contrast, if a competitor copied the *Superman* comic book by looking at the *Superman* comic book and drawing her own comic book that mimicked the characters and story lines of the *Superman* comic book, her copying would presumably save her some time, require somewhat less skill, and result in a competing comic book that consumers would consider a somewhat more perfect substitute for the original, than would creating a similar work without copying. Nevertheless, despite her copying, this competitor would incur not only printing and distribution expenses, but also substantial expenses in creating and marketing her work.⁴⁰³ Moreover, because comic books tell a sequential story, a consumer of *Superman* comic books would not consider a competitor's comic book a reasonable substitute for the original unless it picked up and continued the story using the same characters and plot at the point where each previous issue of *Superman* left off. In other words, only literal or near-literal duplication of each issue would enable a competitor to produce a perfect or near-perfect substitute for the original *Superman* comic book as a series of sequential works. As a result, even literal copying done by hand would provide far less of an advantage in terms of the time and expense saved in producing a competing work, and in terms of the perceived substitutability of the competing work for the original, than mechanical copying would provide. Indeed, the copying advantage that literal, but non-mechanical, copying would provide might prove so slight as to be equal to, or only insignificantly greater

402. See Breyer, 84 Harv. L. Rev. at 294-99 (cited in note 5) (detailing a copier's cost advantage for books). See also Part VI.C.1.b.

403. See *Bleistein*, 188 U.S. at 250. In discussing whether a circus advertisement satisfied the originality standard, Justice Holmes remarked:

The amount of training required for humbler efforts than those before us is well indicated by Ruskin. "If any young person, after being taught what is, in polite circles, called 'drawing,' will try to copy the commonest piece of real *work*,—suppose a lithograph on the title page of a new opera air, or a woodcut in the cheapest illustrated newspaper of the day—they will find themselves entirely beaten."

Id.

than, the typical advantage a competitor can obtain when copying a non-work product.⁴⁰⁴

Third, some products may be relatively easy to copy in one form, yet not in another. For example, consider the copying advantages one individual can obtain over another with respect to an original home design. The copying advantages available to one architect in the building plan market are substantial if she can simply copy the original building plans of another using a blueprint machine.⁴⁰⁵ The copying advantages become far less substantial, however, if she must attempt to re-create the building plans by examining and measuring a home built to the original plan's specifications. Even using the best available techniques to copy the plans in this manner, measuring and converting the dimensions of the completed home back into architectural plans will require more time and skill and will likely yield a somewhat less-exact copy of the original building plans than would photographic reproduction of the original plans. Moreover, if we consider the plan cost as simply one part of the ultimate cost of a home, the copying advantages available to a competitor who builds homes that imitate those of another builder are likely to be trivial. Such a competing builder might save some time and expense on the plans by examining the original builder's completed homes. But by the time the competing builder has purchased the land on which to construct her competing copy and has paid for the supplies and materials necessary to construct the home, the copying advantages available to such a competing builder are likely to amount to no more than a negligible part of the total home cost.⁴⁰⁶

404. See text accompanying notes 460-65.

405. Compare *Donald Frederick Evans & Assocs., Inc. v. Continental Homes, Inc.*, 785 F.2d 897, 901 n.2 (11th Cir. 1986) (holding that copying architectural plans themselves constitutes infringement, while building a home using the plans does not); *Scholz Homes*, 379 F.2d at 86 (suggesting that unauthorized copying of plans is an infringement even if a building constructed using copied plans should not be considered a copy); *Imperial Homes Corp. v. Lamont*, 458 F.2d 895, 899 (5th Cir. 1972) (same); *Demetriades v. Kaufman*, 680 F. Supp. 658, 665 (S.D.N.Y. 1988) (same).

406. For example, my wife and I recently built a home, and the home plans amounted to less than two percent of the final home cost. Architects' fees for homes typically run somewhat higher, between seven and fifteen percent of the home cost. See, for example, Erica Wheeler, *Hiring the Right Architect*, Santa Fe New Mexican G1 (April 30, 1995). For a "signature" building, or for governmental projects, the architectural and engineering fees can run even higher, but should still amount to less than twenty percent of the total project cost. See, for example, Leah Beth Ward, *\$36 million and Rising: UC Building Soars \$ 16 million over Plan*, Cincinnati Enquirer A1 (July 23, 1995) (reporting that architectural fees ended up constituting 21.67% of a building's cost).

b. Empirical Evidence

Ultimately, whether and how much protection against copying copyright should provide to promote allocative efficiency is an empirical matter on which there is very little available evidence. Yet, what empirical evidence there is suggests that copyright should prohibit only exact or near-exact duplication in the competitive copying context. Consider the empirical data Justice, then Professor, Steven Breyer gathered and reported concerning the cost advantage a competitor can obtain by copying.⁴⁰⁷ While Justice Breyer's cost figures are somewhat outdated,⁴⁰⁸ they provide some of the only empirical data available on the extent of the cost advantage copying can provide a competitor. In his work, Justice Breyer presented the following table which detailed the cost savings that copying would provide a competitor with respect to the average college text.⁴⁰⁹

407. Breyer, 84 Harv. L. Rev. at 294-99 (cited in note 5) (detailing a copier's cost advantage for books).

408. Advances in printing technology would materially affect this analysis only if three conditions are satisfied. First, technological advances that reduce the cost and time of printing are material only if they reduce the cost and time of printing disproportionately in favor of a copier. Thus, the speed and cost advantages that desktop publishing achieves over traditional methods of publishing are probably not relevant because the advantages are equally available to both the first publisher and the competitors. Improved scanning technology may, on the other hand, increase the relative advantage of the competitor as compared to older photographic reproduction techniques. Second, to be material, advances in technology must also increase the copying advantages with respect to works of authorship more than technological advances have increased the copying advantages with respect to non-work products. Thus, even scanning technology is material only if it disproportionately increases the copying advantages with respect to the average work of authorship when compared to technological advances such as plug molding, see *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 144-45, 158, 163-64 (1989), that have reduced the cost and time required to copy non-work products. Third, to the extent that copyright prohibits certain forms of copying, only those technological advances that copyright permits a later author to use are relevant. Thus, so long as copyright prohibits exact or near-exact duplication, advances in scanning technology, even if they satisfy the first two conditions, do not justify broadening copyright's protection because a prohibition on near-exact duplication would largely prohibit the use of scanners to reproduce a copyrighted work.

409. See Breyer, 84 Harv. L. Rev. at 295 (cited in note 5).

TABLE 4
TEXTBOOKS: COPIERS' COST ADVANTAGE
LEVEL ONE: NO COPYRIGHT

<i>Fixed Costs</i>	<i>First Publisher</i>	<i>Copiers</i>
Plant	\$ 4,500	\$ 900
Editorial	1,440	500
Other overhead	2,880	2,000
Selling	1,000	1,000
Promotion	<u>700</u>	<u>350</u>
Total Fixed Costs	\$ 10,520	\$ 4,750
 <i>Variable Costs</i>		
Manufacturing	\$ 0.80 per copy	\$ 0.80 per copy
Warehousing and shipping	0.16 " "	0.16 " "
Royalty	0.70 " "	0.00 " "
Selling	0.20 " "	0.20 " "
Promotion	0.14 " "	0.07 " "
Total Variable Costs	<u>\$ 2.00 per copy</u>	<u>\$ 1.23 per copy</u>
Wholesale Price	<u>\$ 4.80 per copy</u>	<u>\$ 4.80 per copy</u>

Using these numbers as an example, we can explore the relationship between copyright's scope and the first publisher's averaged price by considering how three levels of copyright protection would affect the copying advantages available to a competitor. For the first level, we will assume no copyright protection ("Level One" protection). Competitors will be allowed to copy however and whatever they would like. Under this assumption, competitors will presumably be able to produce their competing versions very rapidly, and we will estimate that such competing versions will appear after six months.⁴¹⁰ For the

410. I realize that a competitor may be able to create a copy much faster than six months. See, for example, Barry W. Tyerman, *The Economic Rationale for Copyright Protection for Published Books: A Reply to Professor Breyer*, 18 U.C.L.A. L. Rev. 1100, 1109 (1971) (contending that existing technology would allow a person to produce a quality copy of a book in hours). But creating a competing copy is not simply a matter of running to the nearest photocopying machine. A competitor will also want to wait long enough to ensure that the market will support a competing version. As a result, even if the available copying and distribution technology would enable a competitor to introduce a competing copy within a week, a competitor would rarely do so. See Breyer, 84 Harv. L. Rev. at 297 n.68 (cited in note 5). Moreover, to the

second level, we will assume that copyright prohibits only literal or near-literal paraphrasing ("Level Two" protection). Competitors can copy from the original, but they cannot reproduce it exactly or through near-literal paraphrasing.⁴¹¹ Under this level of protection, the competitors will presumably require somewhat more time to produce their competing versions, and we will estimate that such competing versions will appear after one year. For the third level, we will assume that copyright prohibits any copying of expression to produce a substantially similar work ("Level Three" protection). Competitors may copy a work's ideas, in the ordinary sense of the word, but they cannot reproduce any passage that consumers would recognize as being taken from the original. Under this level of protection, competitors will essentially have to produce their own work, a work that happens to duplicate the subject matter of the original but is otherwise the product of their own skills and labors. Given such copyright protection, we will estimate that competitors will require two years to produce their competing works.

To simplify our discussion, we will assume that the first publisher and the competitors together will sell a total of ten thousand copies of the work⁴¹² and that the sales of the work will be distributed evenly across ten years.⁴¹³ How the total sales will be distributed between the first publisher and the competitors, and how many competitors will enter the market, will depend on the extent of the copying advantages copyright permits a competitor to obtain.⁴¹⁴ We will as-

extent that some of my assumptions seem unrealistically favorable to one side of the copyright issue, some of my other assumptions will tend unrealistically to favor the other. See, for example, text accompanying notes 412-15 (assuming that a work will have ten-year life, and that sales in the post-entry period will be shared evenly between the first publisher and competing entrants). Finally, as I shall eventually propose Level Two as the appropriate standard of protection, erroneous assumptions concerning the effect of Level One protection are ultimately irrelevant. With respect to the assumptions for Level Two, I have used the existing scope of protection, and other methods of estimating a competitor's copying advantages, to confirm that my Level Two assumptions are reasonably accurate. See text accompanying notes 424-31 and note 456.

411. As the Ninth Circuit phrased a similar standard in *Warner Bros.*, a court should find infringement when "it is plain from the study [of the two works] that one of them is not in fact the creation of the putative author, but instead has been copied in substantial part exactly or in transparent re-phrasing." 216 F.2d at 950.

412. In a more detailed analysis, we would recognize that the amount of copying that copyright permits would shift the total number of copies of the work that would be sold because, by allowing additional copying, copyright would reduce the equilibrium price of copies of the work, and thereby increase the quantity sold, if we assume a downward sloping demand curve.

413. This assumption is not critical. We need only assume that the rate of price and cost inflation, and the distribution of sales and expenses over time, are roughly even for the average work and the average non-work product for the analysis to be accurate.

414. As copyright permits a competitor to obtain a larger and larger copying advantage, the number of copies a competitor will need to sell to break even will fall. In order to reach equilib-

sume, however, that the sales during the post-entry period will be evenly distributed among the first publisher and any market entrants.⁴¹⁵

At Level One, the competitors would be able to obtain the full cost savings available to a copier, as reflected in Table 4. Given our lead-time and cost assumptions, the first publisher would sell a total of 1,831 copies of the work over the ten-year life of the work.⁴¹⁶ If we assume that the price and expense of copies of the work remain constant in terms of present value over the ten-year period,⁴¹⁷ then the first publisher would lose approximately \$5,395 on her investment in the work; or, in terms of the averaged price model, the first publisher would receive \$0.62 on every unit⁴¹⁸ of resources she expended to produce the work.⁴¹⁹

rium, each competitor must sell exactly enough copies to break even. (In using a break-even number, I have assumed that the costs in Tables 4 and 5 already include a reasonable return on the investment. A different assumption on that issue would not affect the analysis.) If they sell fewer than necessary to break even, then some will exit the market to avoid the expected loss. If they sell more than necessary to break even, additional competitors will enter the market to capture the supra-normal return available in the market. As a result, at equilibrium, sufficient competitors will have entered the market so that each competitor will exactly break even.

415. By assuming that the equilibrium sales are evenly distributed between the first publisher and the competitors, we have not weighted the equilibrium sales to reflect the first publisher's ability to develop consumer loyalty to her work in the lead-time period, or otherwise to differentiate her version of the work in the post-entry period. The ability to develop such loyalty during the lead-time period would likely enable the first publisher to capture a larger share of the equilibrium sales and to improve her private return on her investment. See Richard Schmalensee, *Product Differentiation Advantages of Pioneering Brands*, 72 Am. Econ. Rev. 349 (1982).

416. The first publisher will sell five hundred copies during the lead-time period. With Level One protection, competitors need to sell 1330.5 copies of the work to break even. Given that the competitors will receive a net cash flow of \$3.57 per copy, which equals the gross income to the competing publisher of \$4.80, less her variable costs of \$1.23 per copy, a competitor at this level of copyright protection would need to sell approximately 1,331 copies of the work to break even. Given that 9,500 total copies of the work will be sold, and assuming that the first publisher will remain in the market, 6.14 competitors can enter the market and sell a sufficient number of copies to break even. (In order to improve the accuracy of the calculations, I have used the exact number of entrants necessary for the market to reach equilibrium. In this case, that number is 6.14 entrants. For a single work or market, imagining 6.14 entrants is difficult, but if we assume that a similar process takes place for one hundred, or one thousand works, then imagining 614 entrants in the one hundred new markets, or 6,140 entrants in the one thousand new markets is relatively easy.) Moreover, I have assumed that the first publisher will share equally in the sales made during the post-entry period. She will therefore sell approximately 1,331 copies during the post-entry period. Together with the 500 copies she sold in the lead-time period, this means she will sell a total of 1,831 copies of her work. Her competitors will sell the remaining 8,169 copies.

417. This assumption is not critical. See note 413.

418. Because we have assumed a constant wholesale price, we cannot calculate the first publisher's averaged price in terms of the numbers of copies sold. An attempt to do so would simply yield the wholesale price. As an alternative to that approach, I have calculated the

In order to determine the averaged price the first publisher can expect to earn under Level Two, we must first estimate the cost savings available to the competitors given the copying that remains permissible. As a starting point, the prohibition on literal copying means that much of the cost savings identified in Table 4 for a copier would no longer be available. Such protection would prohibit essentially all forms of mechanical copying, and would, as a result, prevent the competitors from simply photographing the typeset text of the original publisher. Providing such protection would require the competitor to perform the editing and typesetting of its competing version of the work on her own, and would require the competitor to spend a substantial portion of the plant and editorial expenses that photographic reproduction could otherwise have saved. Similarly, because the competitors' versions will now differ somewhat from the original, the competitors would presumably need to spend more to promote their respective versions of the work than they would need to spend if their versions were more exact copies of the original. Moreover, even if a somewhat less skilled author could more quickly produce a version of the textbook by copying the original textbook to the full extent that this level of protection permits, some time and skill would nevertheless be required to rewrite the original without losing its substance or coherence. While the competitors might not have to pay a royalty of seventy cents per copy, they would have to pay some royalty, which we will estimate at thirty-five cents per copy or half the royalty the first publisher pays. Finally, the competitors will also end up spending somewhat more on overhead, both to manage the editors and authors and to obtain the necessary legal advice.

A prohibition on literal or near-literal copying would, therefore, significantly increase the competitor's costs as compared to its costs in the absence of any copyright protection. Based upon our analysis of how Level Two would affect the cost savings available to a competitor, Table 5 presents an estimate of the costs a competitor

averaged price by dividing the first publisher's gross income by her total costs. As a result, each unit of resources expended refers to each dollar of resources invested. This approach creates some problems, see text accompanying notes 424-27, 441-46, but after correcting for those problems, the approach yields a number that provides a reasonable indication of the extent to which the copying advantages available to competitors reduce the profitability of the first publisher's investment.

419. Given that she sold approximately 1,831 copies of her work at a wholesale price of \$4.80 per copy, the first publisher will receive \$8,786.54 in gross revenue. After deducting her fixed costs of \$10,520 and her variable costs of \$3,661, the first publisher experiences a real loss of \$5,394.52. Moreover, given gross revenue of \$8,786.54 and total expenditures of \$14,181.06, the first publisher earns an averaged price of \$0.62 per unit of resources invested.

would likely incur to produce a competing version of a work if copyright prohibited exact or near-exact copying.

TABLE 5
TEXTBOOKS: COPIERS' COST ADVANTAGE
LEVEL TWO: PROHIBITION ON NEAR-LITERAL REPRODUCTION

<i>Fixed Costs</i>	<i>First Publisher</i>	<i>Copiers</i>
Plant	\$ 4,500	\$ 4,000
Editorial	1,440	1,000
Other overhead	2,880	2,600
Selling	1,000	1,000
Promotion	<u>700</u>	<u>550</u>
Total Fixed Costs	\$ 10,520	\$ 9,150
 <i>Variable Costs</i>		
Manufacturing	\$ 0.80 per copy	\$ 0.80 per copy
• Warehousing and shipping	0.16 " "	0.16 " "
Royalty	0.70 " "	0.35 " "
Selling	0.20 " "	0.20 " "
Promotion	0.14 " "	0.11 " "
Total Variable Costs	<u>\$ 2.00 per copy</u>	<u>\$ 1.62 per copy</u>
Wholesale Price	<u>\$ 4.80 per copy</u>	<u>\$ 4.80 per copy</u>

Given our lead-time assumption and these cost estimates, the first publisher in a world where copyright prohibited literal or near-literal copying would sell a total of 3,877 copies of the work.⁴²⁰ She would earn a real profit (above the normal profit already included in her cost

420. The first publisher will sell one thousand copies in the first year. Given that the competitors will receive a net cash flow of \$3.18 per copy, which equals the gross income to the competing publisher of \$4.80, less her variable costs of \$1.62 per copy, a competitor at this level of copyright protection would need to sell approximately 2,877 copies of the work to break even. Given that 9,000 total copies of the work remain to be sold, and assuming that the first publisher will remain in the market, 2.13 competitors can enter the market. Assuming the sales are evenly divided among the entering competitors and the first publisher, the competitors will sell a sufficient number of copies to break even. We have assumed that the first publisher will share equally in the sales made during the post-entry period. She will therefore sell 2,877 copies during the post-entry period. Together with the one thousand copies she sold in the lead-time period, this means she will sell a total of 3,877 copies of her work. Her competitors will sell the remaining 6,123 copies.

figures) of \$337 on her investment in the work, and would receive an averaged price per unit of \$1.02.⁴²¹

At Level Three, copyright prohibits copying to such an extent that a competitor would obtain essentially no advantage by copying in order to produce a competing version of the original work. While the competitor may obtain some cost savings in the form of reduced risk, given that the competitor can wait and judge the success of the original before committing her resources,⁴²² that risk reduction is offset substantially by the heightened risk of a copyright infringement suit. As a result, we will estimate that Level Three will require the competitor to bear essentially the same costs to produce a competing work as the first publisher bore. Given these assumptions and cost estimates, the first publisher would sell 5,757 copies of the work.⁴²³ She would earn a real profit of \$5,600 on her investment in the work, and receive an averaged price per unit of \$1.25.⁴²⁴

Having estimated the copying advantage given these three possible levels of copyright protection, we should next determine which level would render the typical textbook as difficult for a competitor to copy as, but no more so than, the average non-work product. I should first note, however, that the presence or absence of a profit for our

421. Given that she sold approximately 3,877 copies of her work at a wholesale price of \$4.80 per copy, the first publisher will receive \$18,611.32 in gross revenue. After deducting her fixed costs of \$10,520 and her variable costs of \$7,754.72, the first publisher earns a real profit (over and above the normal profit built into her cost figures) of \$336.60. Moreover, given gross revenue of \$18,611.32 and total expenditures of \$18,274.72, the first publisher earns an averaged price of \$1.018 per unit of resources invested.

422. A competitor cannot wait too long before she commits her resources, or else she will not be able to break even on her competing version because other competitors or the first publisher will have taken the sales she would need to break even. See Breyer, 84 Harv. L. Rev. at 297 n.68 (cited in note 5). This problem will be particularly acute for works whose sales are front-loaded. *Id.*

423. The first publisher will sell two thousand copies of the work during the lead-time period. Given that the competitors will receive a net cash flow of \$2.80 per copy, which equals the gross income to the competing publisher of \$4.80, less her variable costs of \$2.00 per copy, a competitor at this level of copyright protection would need to sell approximately 3,757 copies of her work to break even. Given that 8,000 total copies of the work remain to be sold, and assuming that the first publisher will remain in the market, 1.40 competitors can enter the market. Assuming the sales are evenly divided among the entering competitors and the first publisher, the competitors will sell a sufficient number of copies to break even. We have assumed that the first publisher will share equally in the sales made during the post-entry period. She will therefore sell 3,757 copies during the post-entry period. Together with the 2,000 copies she sold in the lead-time period, this means she will sell a total of 5,757 copies of her work. Her competitors will sell the remaining 4,243 copies.

424. Given that she sold approximately 5,757 copies of her work at a wholesale price of \$4.80 per copy, the first publisher will receive \$27,634.29, in gross revenue. After deducting her fixed costs of \$10,520 and her variable costs of \$11,514.29, the first publisher earns a real profit of \$5,600.00. Moreover, given gross revenue of \$27,634.29 and total expenditures of \$22,034.29, the first publisher earns an averaged price of \$1.25 per unit of resources invested.

first producer at any given level of protection does not establish the optimal level of protection. To the extent copyright has provided a given level of protection for some time, sufficient entry will likely have occurred to place the market in equilibrium. If the market is at equilibrium, the average work of authorship will earn no more than a normal return on investment.⁴²⁵ Because copyright provided a relatively constant level of protection for textbooks in the years preceding 1968, the year from which Justice Breyer took his data, the market for such works should have reached equilibrium. Moreover, because copyright has almost invariably provided college textbooks, and other non-entertainment works, with fairly narrow protection, similar to Level Two,⁴²⁶ we should expect that the first publisher will

425. See, for example, Mackaay, 94 Colum. L. Rev. at 2635, 2638 (cited in note 22). See also Kay, 13 Intl. Rev. L. & Econ. at 344 (cited in note 320). If the average work was earning more, or less, than a normal return, we would expect to see further entry into, or exit from, the market in order to reach equilibrium. Thus, the arguments that publishing houses do not earn an unreasonable return on their investment, or that only one in five works produces a profit, do not justify the existing level of copyright protection, nor do they justify broadening that protection. See Plant, 1 *Economica* at 185 (cited in note 12) ("It is not, however, to be expected that many people would support the principle of indiscriminate encouragement of all books which publishers regard as unlikely to sell in sufficient volume to cover their cost"). These arguments merely establish, first, that copyright protection has remained sufficiently constant for a sufficient period of time to induce additional investment, and second, that the existing scope of copyright protection enables a publisher to earn a profit on the one profitable work sufficient to support the four unprofitable works. If we broaden copyright protection, we should expect the equilibrium success rate to drop even further, to one in six, or one in eight, or one in ten. We can see this tendency in the historical evidence, which demonstrates a consistent drop in the success rate as copyright has broadened its protection. Compare Arber, ed., 2 *Transcript of the Registers* at 587 (cited in note 23) (asserting, in a 1643 petition on behalf of the Stationers' Company, that "scarce one book of three sells well or proves gainfull to the publisher"); Plant, 1 *Economica* at 183 (cited in note 12) (citing an 1878 article for the proposition that "four books out of five which are published do not pay their expenses"), Hearings at 29 (cited in note 324) ("[S]ix out of ten films never recoup their total investment"); *id.* at 547 ("Eighty-four percent of all [sound recording] industry releases fail to recover their costs. Six percent of classical records make it into the black") (statement of Jerry Moss, chairman of A&M Records); Digital Audio Recording: Hearing Before the Subcommittee on Commerce, Consumer Protection, and Competitiveness of the House Committee on Energy and Commerce, 102d Cong., 2d Sess. 88 (1992) ("[O]nly 15 percent of all recordings released recoup their costs") (statement of Jason S. Bearman, president, Recording Industry Association of America). As a result, if a low success rate justified broader copyright protection, we would have to expand such protection continuously. Broader protection would lower the success rate, which would in turn justify even broader protection.

426. See, for example, *Eisenschiml v. Fawcett Pub., Inc.*, 246 F.2d 593, 604 (7th Cir. 1957) (recognizing both that any two treatments of the same historical subject will be similar because the facts limit the author's freedom, and that a scholar is entitled to use a predecessor's work); *Morrison v. Solomons*, 494 F. Supp. 218, 225-26 (S.D.N.Y. 1980) (same); *McMahon v. Prentice-Hall, Inc.*, 486 F. Supp. 1296, 1302-04 (E.D. Mo. 1980) (same); *Kepner-Tregoe*, 203 U.S.P.Q. at 131-32; *McGraw-Hill, Inc. v. Worth Publishers, Inc.*, 335 F. Supp. 415, 421 (S.D.N.Y. 1971). See also text accompanying notes 160-73.

just break even on the typical textbook at Level Two, if our assumptions and cost estimates are reasonably accurate. As a result, that our example produces a near-break-even result for the first publisher at Level Two does not establish that Level Two is the appropriate level of protection; rather, it merely establishes that our estimates of the likely copying advantages to a competitor are reasonably accurate.

In order to determine which level of protection copyright should provide, we must compare the copying advantages to a competitor at each level of protection with the advantages to a competitor for other types of works and non-work products. In addition to the averaged price figure, two other values provide useful indicators of the advantage copying provides a competitor. First, Justice Breyer used a ratio of the number of copies the competitor must sell to break even to the number of copies the first publisher must sell as an indicator of the competitor's copying advantages.⁴²⁷ Second, in their study of imitation costs and patents, Edwin Mansfield, Mark Schwartz, and Samuel Wagner used a ratio that compared the cost for a competitor to develop and introduce an imitative product to the cost for the original innovator to develop and introduce the product as an indicator of the competitor's copying advantages.⁴²⁸ While each of these two approaches has certain strengths and weaknesses when compared to the averaged price method,⁴²⁹ the scarcity of the empirical evidence available requires that we use all three methods if we want to generate some conclusions concerning copyright's proper scope.

427. See Breyer, 84 Harv. L. Rev. at 294-97 (cited in note 5).

428. See Edwin Mansfield, Mark Schwartz, and Samuel Wagner, *Imitation Costs and Patents: An Empirical Study*, 91 Econ. J. 907, 907-10 (1981).

429. The use of Justice Breyer's ratio will tend to overstate the competitor's copying advantage because it fails to consider the lead-time period of the first publisher. Professors Mansfield, Schwartz, and Wagner's approach may similarly overstate the competitor's copying advantage because it fails to consider the lead-time advantage enjoyed by the first publisher. (In their work, Professors Mansfield, Schwartz, and Wagner accounted for the lead-time advantage by using a second ratio that compared the time it takes a competitor to market the imitation to the time it took the original producer to innovate the new product. *Id.* at 909-13.) The fixed cost ratio may also understate the competitor's copying advantage because it fails to consider any advantage an imitating competitor might obtain in the marginal cost of producing and marketing her product. None of these weaknesses are critical, however, because the issue is one of the relative copying advantage available to a competitor with respect to a work of authorship as compared to a non-work product. So long as each approach over- or understates the copying advantage available to the same extent with respect to a work of authorship and a non-work product, either approach will provide an acceptable means of determining copyright's appropriate scope. The principal weakness of the averaged price method is that it requires some assurance that two investments, which earn the same averaged price, generate products of equivalent social value. See text accompanying notes 443-48. Such data may be more difficult to obtain than the data necessary to calculate the fixed cost and payout ratios.

If we examine Tables 4 and 5, we can calculate the payout ratios and the fixed cost⁴³⁰ ratios for each level of protection. For example, at Level One, the competitor has fixed costs of \$4,750 and a net cash flow on each copy she sells of \$3.57 per copy.⁴³¹ In order to break even on a competing version of the textbook, a competitor must sell 1,331 copies. In contrast, the first publisher has fixed costs of \$10,520 and a net cash flow of only \$2.80 per copy, and therefore, must sell 3,757 copies in order to break even. By dividing the competitor's number of break-even copies by the first publisher's break-even number, we can calculate a payout ratio of 0.354 at Level One. Similarly, if we divide the competitor's fixed costs of \$4,750 by the first publisher's fixed costs of \$10,520, we find that the fixed cost ratio at Level One protection is 0.4515.

We can perform similar calculations for the payout and fixed cost ratios at protection Levels Two and Three. Table 6 presents these results.

TABLE 6
INDICATORS OF COPYING ADVANTAGE
FOR A TEXTBOOK

Copyright's Scope	Averaged Price (\$ per unit)	Payout Ratio	Fixed Cost Ratio
Level 1	\$ 0.62	0.354	0.4515
Level 2	1.02	0.766	0.8698
Level 3	1.25	1.0	1.0

As discussed, each of these indicators provides one measure of the competitor's copying advantage at each level of copyright protection. For each indicator, the lower the value, the greater the degree of copying advantage available to the competitors. As copyright broadens its protection, it renders works of authorship more difficult to copy and decreases a competitor's copying advantage. The indicators illustrate

430. While Professor Mansfield and his colleagues used the costs of "developing and introducing the imitative product," rather than the fixed costs associated with producing the product, the division of costs between fixed and variable that Justice Breyer made permits us to substitute fixed costs for the costs of developing and introducing the product in calculating comparable ratios because the fixed costs should essentially represent the costs of developing and introducing a work. Mansfield, Schwartz, and Wager, 91 *Econ. J.* at 907 (cited in note 428).

431. Her net cash flow equals the wholesale price that she receives for the work, \$4.80 per copy, less her variable costs of \$1.23 per copy.

this relation by increasing steadily as copyright increases its protection from Level One to Level Three.

Having defined the copying advantages each level of copyright protection gives a competitor, we need only compare them to the copying advantages a competitor can obtain with respect to non-work products to determine the proper scope of copyright. Before we make that comparison, however, let us revisit the dichotomy of fact versus fiction, or entertaining versus other-than-entertaining works, which we have previously discussed⁴³² to see whether retaining this dichotomy promotes allocative efficiency.

Under this dichotomy, copyright has historically provided a greater scope of protection for fictional works than it has for factual or useful works.⁴³³ Given our analysis, such a dichotomy promotes allocative efficiency only if such broader protection is needed for fictional works in order to make them as difficult, on average, for a competitor to copy as the more narrowly protected factual works. Yet, the evidence Justice Breyer has collected tends to establish that both factual works, such as textbooks, and fictional works, such as novels, deserve the same level of protection.

In his article, Justice Breyer presented the following table, which details the costs of producing a typical four hundred-page hardbound novel for the first publisher and a copier:⁴³⁴

432. See text accompanying notes 302-03.

433. See, for example, *Harper & Row Publishers*, 471 U.S. at 563 ("The law generally recognizes a greater need to disseminate factual works than works of fiction or fantasy"). See also text accompanying notes 125-29 and 160-73.

434. See Breyer, 84 Harv. L. Rev. at 297 n.68 (cited in note 5).

TABLE 7
NOVEL: COPIERS' COST ADVANTAGE
NO COPYRIGHT

<i>Fixed Costs</i>	<i>First Publisher</i>	<i>Copiers</i>
Plant	\$3,900	\$725
Editorial	1,300	450
Other overhead	2,800	2,000
Selling	650	650
Promotion	<u>1,350</u>	<u>675</u>
Total Fixed Costs	\$10,000	\$4,500
 <i>Variable Costs</i>		
Manufacturing	\$0.70 per copy	\$0.70 per copy
Warehousing and shipping	0.20 " "	0.20 " "
Royalty	0.70 " "	0.00 " "
Selling	0.13 " "	0.13 " "
Promotion	0.27 " "	0.14 " "
Total Variable Costs	<u>\$2.00 per copy</u>	<u>\$1.17 per copy</u>
 Wholesale Price	 <u>\$4.00 per copy</u>	 <u>\$4.00 per copy</u>

In applying the averaged price model to this data, we will assume as we assumed with respect to the typical textbook, that the cost savings in Table 7 will be available to a competitor who copies to produce a competing version of the copyrighted work in a world with no copyright protection. To determine the cost savings available to a competitor in a world with Level Two copyright protection, we need to estimate the savings that nonliteral copying would provide such a competitor. Because our estimates of the cost savings in such a Level Two world were apparently accurate for the textbook (given that they suggested equilibrium at Level Two protection) and because the techniques for copying either form of literary work appear to be similar, we will use similar estimates for the copying advantages available with respect to a novel. Table 8 summarizes the estimated cost savings available to a competitor copying a novel under Level Two.

TABLE 8
NOVELS: COPIERS' COST ADVANTAGE
PROHIBITION ON NEAR-LITERAL REPRODUCTION

<i>Fixed Costs</i>	<i>First Publisher</i>	<i>Copiers</i>
Plant	\$3,900	\$3,500
Editorial	1,300	900
Other overhead	2,800	2,600
Selling	650	50
Promotion	<u>1,350</u>	<u>1,100</u>
Total Fixed Costs	\$10,000	\$8,750
 <i>Variable Costs</i>		
Manufacturing	\$0.70 per copy	\$0.70 per copy
Warehousing and shipping	0.20 " "	0.20 " "
Royalty	0.70 " "	0.35 " "
Selling	0.13 " "	0.13 " "
Promotion	0.27 " "	0.24 " "
Total Variable Costs	<u>\$2.00 per copy</u>	<u>\$1.62 per copy</u>
Wholesale Price	<u>\$4.00 per copy</u>	<u>\$4.00 per copy</u>

Similarly, we will continue to assume that a copying competitor will obtain no net cost savings by copying under Level Three.

According to Justice Breyer, these cost estimates are for a novel expected to sell five thousand copies. We will assume that the sales of these copies are distributed evenly over five years⁴³⁵ and that the first publisher has a six month, one year, and two year lead-time period in the Level One, Level Two, and Level Three protection worlds, respectively. As before, the distribution of the total sales between the first publisher and the competitors and the number of competitors who will enter the market will depend on the extent of the copying advantages copyright provides to a competitor. We will also retain our assumption that sales during the post-entry period

435. To the extent that sales are not distributed evenly over the five year period, but are more likely to occur disproportionately in the first months after publication, such front-loading of the sales of the work would increase the number of sales made by the first publisher and reduce the number of sales made by competitors. As a result, the assumption in the text will generate an averaged price that suggests a greater need for copyright protection than is likely to exist in the real world.

will be distributed evenly between the first publisher and any market entrants.

With Level One protection, the first publisher will sell a total of 2,490 copies of the work,⁴³⁶ will lose approximately \$5,820 on her investment in the work, and will receive an averaged price of \$0.59 on every unit of resources expended.⁴³⁷ With Level Two protection, the first publisher will sell a total of 4,676 copies of the work,⁴³⁸ will lose approximately \$647 on her investment in the work, and will receive an averaged price per unit of \$0.97.⁴³⁹ With Level Three protection, the first publisher will sell all 5,000 copies of the work,⁴⁴⁰ will exactly

436. The first publisher will sell 500 copies of the work during the lead-time period. Given that the competitors will receive a net cash flow of \$2.83 per copy, which equals the gross income to the competing publisher of \$4.00, less her variable costs of \$1.17 per copy, a competitor at this level of copyright protection would need to sell approximately 1,590.1 copies of her work to break even. Given that 4,500 total copies of the work remain to be sold after the lead-time period, and assuming that the first publisher will remain in the market, 1.83 competitors can enter the market. Assuming the sales are evenly divided among the entering competitors and the first publisher, the competitors will sell a sufficient number of copies to break even. We have assumed that the first publisher will share equally in the sales made during the post-entry period. Given this degree of entry, the first publisher will sell an additional 1,590.1 copies during the post-entry period. Together with the 500 copies she sold in the lead-time period, the first publisher will sell a total of 2,090 copies of her work. Her competitors will sell the remaining 2,910 copies.

437. Given that she sold approximately 2,090 copies of her work at a wholesale price of \$4.00 per copy, she will receive \$8,360.42 in gross revenue. After deducting her fixed costs of \$10,000 and her variable costs of \$4,180.21, the first publisher experiences a real loss of \$5,819.79. Moreover, given gross revenue of \$8,360.42 and total expenditures of \$14,180.21, the first publisher earns an averaged price of \$0.590 per unit of resources invested.

438. The first publisher will sell 1,000 copies of the work during the lead-time period. Given that the competitors will receive a net cash flow of \$2.38 per copy, which equals the gross income to the competing publisher of \$4.00, less her variable costs of \$1.62 per copy, a competitor at this level of copyright protection would need to sell approximately 3,676.5 copies of her work to break even. Given that 4,500 total copies of the work remain to be sold after the lead-time period, and assuming that the first publisher will remain in the market, 0.088 competitors can enter the market. Assuming the sales are evenly divided among the entering competitors and the first publisher, the competitors will sell a sufficient number of copies to break even. We have assumed that the first publisher will share equally in the sales made during the post-entry period. She will therefore sell 3,676.5 copies during the post-entry period. Together with the 1,000 copies she sold in the lead-time period, this means she will sell a total of 4,676.5 copies of her work. Her competitors will sell the remaining 323.5 copies.

439. Given that she sold approximately 3,676.5 copies of her work at a wholesale price of \$4.00 per copy, the first publisher will receive \$18,705.88 in gross revenue. After deducting her fixed costs of \$10,000 and her variable costs of \$9,352.94, the first publisher experiences a real loss of \$647.06. Moreover, given gross revenue of \$18,705.88 and total expenditures of \$19,352.94, the first publisher earns an averaged price of \$0.967 per unit of resources invested.

440. The first publisher will sell 2,000 copies of the work during the lead-time period. Given that the competitors will receive a net cash flow of \$2.00 per copy, which equals the gross income to the competing publisher of \$4.00, less her variable costs of \$2.00 per copy, a competitor at this level of copyright protection would need to sell 5,000 copies of her work to break even. Given that only 3,000 copies remain to be sold, a competitor could not expect to en-

break even on her investment, and will receive an averaged price per unit of \$1.00.⁴⁴¹

Again the presence or absence of profit at any given level of protection does not establish which level is most desirable. As was the case for the textbook market, we should expect the market for fictional novels to be at equilibrium given the reasonably predictable level of copyright protection such works received in the years preceding 1968. As a result, we should expect to find, if our cost estimates and assumptions are accurate, that the first publisher will roughly break even at the level of protection copyright has traditionally afforded fictional literary works. That the first publisher breaks even at Level Three, therefore, merely confirms the accuracy of our cost estimates and assumptions given that our Level Three most closely matches the scope of protection copyright provided fictional literary works in the 1960s.⁴⁴²

In order to determine whether Level Three should be the level of protection for fictional works, we must determine that (1) an individual would expect to receive a roughly equal price for her resources when invested in a fictional work for which copyright provides Level Three protection, as she would if she invested them in a factual literary work for which copyright provides Level Two protection, and (2) the two works are otherwise comparable or of roughly equal social value. Further examination of Justice Breyer's data establishes that his typical novel has substantially less social value than his typical textbook. For a similar expenditure of society's resources,⁴⁴³ investing in the novel produces a work that sells five thousand copies at a wholesale price of \$4.00. Investing in the textbook, on the other hand, produces a work that sells ten thousand copies at a wholesale price of \$4.80. To the extent that market value fairly represents a work's social value, that the typical textbook sells a greater volume at a higher price than the typical novel strongly suggests that the typical textbook has a greater social value than the typical novel. Indeed, so long as the two works create proportional de-

ter the market and break even, even if the competitor could sell every one of the remaining copies. As a result, no competitors would enter the market.

441. Given that she sold 5,000 copies of her work at a wholesale price of \$4.00 per copy, the first publisher will receive \$20,000 in gross revenue. After deducting her fixed costs of \$10,000 and her variable costs of \$10,000, the first publisher will exactly break even. Moreover, given gross revenue of \$20,000 and total expenditures of \$20,000, the first publisher will earn an averaged price of \$1.00 per unit of resources invested.

442. See text accompanying notes 197-201.

443. The two works require similar fixed expenditures and similar per-copy expenditures, although slightly fewer resources are expended for the novel across its entire production run, because it sells only 5,000 copies.

gresses of positive and negative externalities, the greater demand for the typical textbook establishes its greater social value.⁴⁴⁴

From this, we must conclude that copyright's current practice of providing different levels of protection for factual and fictional works has led to allocative inefficiency. By providing increased protection for fictional works, copyright ensures individuals a higher price for resources invested in additional fictional works, even when society would value additional factual works more highly. Copyright thereby encourages individuals to create additional fictional works of lesser value rather than additional factual works of greater value. If individuals devote their available resources to the uses for which they receive the highest price, such protection will lead, and indeed has led, the market to overproduce fictional works and to underproduce factual works. As a result, the typical or break-even fictional literary work in Justice Breyer's data has substantially less social value than the typical or break-even factual literary work.⁴⁴⁵ In addition, because this disparate protection has led the market, at equilibrium, to produce a typical novel of less social value than a textbook, we cannot compare the averaged price earned on these two investments because the two investments do not produce works that are of equivalent social value.

In order to use Justice Breyer's data and the averaged price model to suggest how much protection copyright should provide, we must examine the averaged price received for resources invested in two works of similar social value. In other words, we must consider the copying advantages and the averaged price returned to an investor who, for a similar investment of resources, can produce two works, one fictional and one factual, of similar value to society. This

444. The consumer surplus associated with each work will satisfy this condition so long as the demand curves for the two works exhibit similar slope, or elasticity. To the extent that courts are correct in assuming that the slope of the demand curve is steeper, or that the demand is less elastic, for factual works than for fictional works, the social value of the textbook will be that much greater than the social value of the novel.

445. As copyright broadens its protection, it increases the profitability of any given work. As a result, works that would have been marginally profitable or even unprofitable under a more narrow scope of protection may become substantially profitable with broader protection. To the extent that at any given level of copyright protection a given work will be more profitable, increasing the scope of copyright protection tends to make it possible for an author to break even on a less valuable work. In other words, if copyright provides broader protection, then we should expect that the break-even work will have less social value than the break-even work under a more narrow standard of protection. Thus, to the extent that copyright provides broader protection to fictional works than it does to factual works, we should expect that the break-even fictional work will have less social value than the break-even factual work.

hypothetical will necessarily be counterfactual, as the actual level of copyright protection available has already caused individuals to over- or underinvest in the relevant markets. Such over- or underinvestment has, in turn, skewed the actual costs and sales figures associated with the typical work.⁴⁴⁶

To construct a hypothetical that will enable us to compare the averaged price received for two otherwise comparable literary works, one fictional and one factual, we will retain the cost figures Justice Breyer reported for the typical novel and simply assume a greater demand for our hypothetical fictional work.⁴⁴⁷ In fact, we will assume that our hypothetical fictional work has a demand comparable, on a price-adjusted basis, to the typical textbook. By making the price-adjusted demand for our hypothetical novel and the typical textbook comparable, we ensure that the two works would have roughly equal social value.⁴⁴⁸ Thus, we will assume that for the costs Table 7 reflects, the first publisher of our hypothetical novel can produce a novel that sells a total of twelve thousand copies,⁴⁴⁹ with sales evenly distributed across a ten-year life. If we retain our assumptions with respect to the first publisher's lead-time and a competitor's cost savings under each level of protection, then we can calculate the averaged

446. If copyright were to narrow its protection of fictional works by prohibiting, for example, only literal and near-literal copying of such works, then it would reduce the profitability of any given fictional work. As copyright narrows its protection, works that would have been very profitable under a broader protection scheme might become only somewhat profitable, somewhat profitable works might only break even, break-even works would become unprofitable, and so on. Such a narrowing in the protection would necessarily change the cost or demand characteristics of the break-even fictional work. In order to break even under a narrow protection standard, a work would need, as compared to the break-even work under a broader protection standard, either to sell more copies at a given price for the same production cost, or to sell the same number of copies, but cost less to produce. As a result, the break-even work under a narrow protection standard would have a higher social value than the break-even work under a broader protection standard.

447. In the alternative, we could construct two comparable works, one fictional and one factual, by (a) decreasing the cost of the novel, while retaining its reported sales volume of 5,000 copies, (b) increasing the costs of the textbook, while retaining its reported sales volume of 10,000, or (c) decreasing the sales volume of the textbook, while retaining its reported costs. Any of these alternatives would generate the same result and suggest that for two comparable works, one fictional and one factual, copyright would need to provide comparable levels of copyright protection for the two works in order for an investor to receive a comparable private return from investing in either work.

448. Because the two works would cost essentially the same and generate the same price-adjusted demand, the two works will have similar social value to the extent the two works have similarly sloped demand curves and similar degrees of positive and negative externalities. While neither assumption will be true in every case, they will probably be accurate often enough to rely upon.

449. Twelve thousand multiplied by a wholesale price of \$4.00 per copy equals 10,000 multiplied by a wholesale price of \$4.80 (the sales volume and wholesale price of the textbook).

price an individual can expect to receive for investing in such a literary work.

With Level One protection, our investor will sell 2,190 copies of the work,⁴⁵⁰ will lose approximately \$5,620 on her investment in the work, and will receive an averaged price of \$0.61 for every unit of resources she expended to produce the work.⁴⁵¹ With Level Two protection, the first publisher will sell 4,876 copies of the work,⁴⁵² will lose approximately \$247 on her investment in the work, and will receive an averaged price of \$0.99.⁴⁵³ With Level Three protection, the first publisher will sell 7,400 copies of the work,⁴⁵⁴ will earn a real profit of \$4,800 on her work, and will receive an averaged price of \$1.19.⁴⁵⁵

450. The first publisher will sell 600 copies of the work during the lead-time period. Given that the competitors will receive a net cash flow of \$2.83 per copy, which equals the gross income to the competing publisher of \$4.00, less her variable costs of \$1.17 per copy, a competitor at this level of copyright protection would need to sell approximately 1,590.1 copies of her work to break even. Given that 11,400 total copies remain to be sold after the lead-time period, and assuming that the first publisher will remain in the market, 6.169 competitors can enter the market. Assuming the sales are evenly divided among the entering competitors and the first publisher, the competitors will sell a sufficient number of copies to break even. We have assumed that the first publisher will share equally in the sales made during the post-entry period. She will therefore sell 1,590.1 copies during the post-entry period. Together with the 600 copies she sold in the lead-time period, this means she will sell a total of approximately 2,190 copies of her work. Her competitors will sell the remaining 9,810 copies.

451. Given that she sold approximately 2,190 copies of her work at a wholesale price of \$4.00 per copy, the first publisher will receive \$8,760.42 in gross revenue. After deducting her fixed costs of \$10,000 and her variable costs of \$4,380.21, the first publisher experiences a real loss of \$5,619.79. Moreover, given gross revenue of \$8,760.42 and total expenditures of \$14,380.21, the first publisher earns an averaged price of \$0.609 per unit of resources invested.

452. The first publisher will sell 1,200 copies of the work during the lead-time period. Given that the competitors will receive a net cash flow of \$2.38 per copy, which equals the gross income to the competing publisher of \$4.00, less her variable costs of \$1.62 per copy, a competitor at this level of copyright protection would need to sell approximately 3,676.47 copies of her work to break even. Given that 10,800 copies of the work remain to be sold after the lead-time period, and assuming that the first publisher will remain in the market, 1.94 competitors can enter the market. Assuming the sales are evenly divided among the entering competitors and the first publisher, the competitors will sell a sufficient number of copies to break even. We have assumed that the first publisher will share equally in the sales made during the post-entry period. She will therefore sell 3,676.47 copies during the post-entry period. Together with the 1,200 copies she sold in the lead-time period, this means she will sell a total of 4,876 copies of her work. Her competitors will sell the remaining 7,124 copies.

453. Given that she sold approximately 4,876 copies of her work at a wholesale price of \$4.00 per copy, the first publisher will receive \$19,505.88 in gross revenue. After deducting her fixed costs of \$10,000 and her variable costs of \$9,752.94, the first publisher experiences a real loss of \$247.06. Moreover, given gross revenue of \$19,505.88 and total expenditures of \$19,752.94, the first publisher earns an averaged price of \$0.987 per unit of resources invested.

454. The first publisher will sell 2,400 copies of the work during the lead-time period. Given that the competitors will receive a net cash flow of \$2.00 per copy, which equals the gross income to the competing publisher of \$4.00, less her variable costs of \$2.00 per copy, a competitor at this level of copyright protection would need to sell approximately 5,000 copies of her work to break even. Given that 9,600 total copies of the work will be sold, and assuming

Taking this averaged price data and calculating the payout and fixed cost ratios for each level of protection,⁴⁵⁶ we can generate the following table which details the copying advantage for our hypothetical novel.

TABLE 9
INDICATORS OF COPYING ADVANTAGE
FOR AN OTHERWISE COMPARABLE NOVEL

Copyright's Scope	Averaged Price (\$ per unit)	Payout Ratio	Fixed Cost Ratio
Level 1	\$0.61	0.318	0.45
Level 2	0.99	0.735	0.875
Level 3	1.19	1.0	1.0

Moreover, because our hypothetical novel has a social value roughly equivalent to that of the typical textbook, we can compare the averaged price figures to those in Table 6 to determine whether copyright should continue to provide disparate protection for factual and fictional literary works.⁴⁵⁷ A brief comparison of the values of each indicator in Tables 6 and 9 reveals that the copying advantages available to a competitor copying a textbook are nearly identical to the copying advantages available to a competitor copying an otherwise comparable novel at each level of copyright protection.⁴⁵⁸ This suggests that copyright should provide a similar level of protection for

that the first publisher will remain in the market, 0.92 competitors can enter the market. Assuming the sales are evenly divided among the entering competitors and the first publisher, the competitors will sell a sufficient number of copies to break even. We have assumed that the first publisher will share equally in the sales made during the post-entry period. She will therefore sell 5,000 copies during the post-entry period. Together with the 2,400 copies she sold in the lead-time period, this means she will sell a total of 7,400 copies of her work. Her competitors will sell the remaining 4,600 copies.

455. Given that she sold approximately 7,400 copies of her work at a wholesale price of \$4.00 per copy, she will receive \$29,600 in gross revenue. After deducting her fixed costs of \$10,000 and her variable costs of \$14,800, the first publisher experiences a real profit of \$4,800. Moreover, given gross revenue of \$29,600 and total expenditures of \$24,800, the first publisher earns an averaged price of \$1.194 per unit of resources invested.

456. Because they do not depend on the number of copies sold, or on the social value of the work, the payout and fixed cost ratios are identical for both Justice Breyer's reported novel and for our hypothetical novel.

457. This assumption of roughly equivalent social value is not required in order to use the payout and fixed cost ratios since these numbers are the same for Justice Breyer's typical novel and for our hypothetical novel. To the extent these ratios confirm the extent of the copying advantages available to a competitor at each level of protection, they provide assurance that our assumptions with respect to the hypothetical novel have not generated an unrealistic averaged price for such novel.

458. See text accompanying notes 431-32.

both factual and fictional literary works. The data further suggests that if copyright were to provide Level Three protection for the otherwise comparable novel, while only providing Level Two protection for the textbook, it would render the novel more difficult to copy than the textbook. By making the novel more difficult to copy than the textbook, copyright would lead an individual to expect a higher averaged price for her resources when invested in a novel than she would expect from investing her resources in an otherwise comparable textbook. Such disparity in the scope of protection and the corresponding disparity in averaged price received would, at the margins, lead individuals to invest in additional novels even though society would place greater value on additional textbooks. This would generate the sorts of allocative inefficiency that Justice Breyer's actual data reflect.⁴⁵⁹

The available empirical evidence thus indicates that copyright should provide a similar level of protection for factual and fictional literary works, but raises the further question whether copyright should equalize protection between these two types of works, either (a) by extending the broader protection now given fictional literary works to factual works, or (b) by limiting the protection of fictional literary works to the narrower protection copyright presently accords factual literary works. To answer this question, we must turn to the empirical evidence on the copying advantage available to competitors with respect to non-work products.

In 1981, Professors Mansfield, Schwartz, and Wagner published their study detailing the extent of the copying advantage available for non-work products.⁴⁶⁰ Based upon their study of forty-eight new products in the chemical, pharmaceutical, electronics, and machinery industries, Mansfield and his colleagues calculated an average ratio of imitation cost to innovation cost of "about 0.65."⁴⁶¹ To

459. Thus, at Level One protection, the averaged price received for the resources invested is \$0.62 for the textbook, and \$0.61 for an otherwise comparable novel. At Level Two, the averaged price received for the resources invested is \$1.02 for the textbook and \$0.99 for an otherwise comparable novel. At Level Three, the averaged price received for the resources invested is \$1.25 for the textbook and \$1.19 for an otherwise comparable novel. See also text accompanying notes 442-46.

460. See Mansfield, Schwartz, and Wagner, 91 *Econ. J.* at 907 (cited in note 428). See also Edwin Mansfield, et al., *Technology Transfer, Productivity, and Economic Policy* 132-53 (W. W. Norton, 1982) (providing empirical data on the effects that patents have on imitation costs and on the "rate of innovation"). As far as I am aware, their work represents the only systematic attempt to determine a competitor's copying advantages for non-work products generally.

461. Mansfield, Schwartz, and Wagner, 91 *Econ. J.* at 909 (cited in note 428). The Mansfield study examined the copying advantages available to competitors for five products

the extent this ratio represents the copying advantages available to competitors with respect to non-work products generally, we can identify the appropriate scope of copyright protection by determining which level of protection ensures a similar fixed-cost ratio for competitors with respect to works of authorship. Returning to Tables 6 and 9 and examining the ratio of fixed costs presented therein reveals that providing Level Two protection may render works of authorship more difficult to copy than the average non-work product.⁴⁶² We can, however, read Tables 6 and 9 to establish that less allocative inefficiency would result from providing literary works Level Two protection than from providing such works no protection at all.⁴⁶³

To the extent the relative copying advantages depicted in Tables 6 and 9 represent the relative copying advantages available to authors generally, the empirical evidence tends to establish that copyright should protect literary works only against exact or near-exact duplication. Such a prohibition would reduce the copying advantages a competitor could obtain with respect to a literary work to a level where they are comparable to, or perhaps even less than, the copying advantages a competitor can obtain with respect to non-work products generally. Such a prohibition would eliminate the quickest, least expensive, and most exact forms of copying, and would on average reduce a competitor's copying advantages to a level where an author would have a reasonable opportunity to earn a fair return

introduced before 1960, for fifteen products introduced in the 1960s, and for twenty-eight products introduced during the period from 1970-1976. See *id.* at 908 n.1.

462. The fixed cost ratios for the textbook and the novel were: 0.4515 and 0.45 respectively with Level One protection; 0.8698 and 0.875 respectively with Level Two protection; and 1.0 and 1.0 respectively with Level Three protection. See text accompanying notes 431, 456, 467-68.

463. Assuming the fixed cost ratios are an accurate measure of a competitor's copying advantage, providing Level Two protection will result in less allocative inefficiency than providing Level One (or no) protection, if the fixed cost ratio associated with Level Two protection is closer to the non-work product ratio of 0.65 than it is at Level One protection. Arithmetically, the Level One ratios in Tables 6 and 9 are closer to the 0.65 ratio for non-work products than the Level Two ratios— $0.872-0.65 = 0.222$ versus $0.65-0.45 = 0.20$. However, if a change in the fixed cost ratio creates a proportional change in private return, as one might expect, then the Level Two ratios are proportionally closer to the 0.65 ratio than the Level One ratios— $0.65/0.872 = 74.5\%$ versus $0.45/0.65 = 69.2\%$. To the extent that the fixed-cost ratios indicate that even Level Two protection makes works of authorship more difficult to copy than non-work products, this suggests that copyright should limit its term of protection. By limiting the term of protection to fourteen years, copyright would leave works of authorship with Level One protection after that period. We would then want to average, in some sense, the competitor's copying advantage for the post-copyright years with the advantage during copyright. Because the competitors could copy more easily after copyright ended, the difficulty of copying works of authorship would tend to be more in line with the difficulty for non-work products.

on her investment.⁴⁶⁴ While allowing a competitor to copy at higher levels of abstraction would still give the competitor some, perhaps substantial, advantages over the original author of the work, those copying advantages would appear to be somewhat less than the advantages a competitor can obtain when copying one of the broad range of consumer and industrial products that fall outside the scope of copyright's protection.⁴⁶⁵

c. Conclusion

While we must be careful about drawing any definite conclusions given the limited empirical evidence available, both the available empirical evidence and common sense strongly suggest that copyright should significantly narrow its protection for entertaining literary works. While I have not seen any empirical evidence on the copying advantages available with respect to sound recordings, musical works, dramatic works, audio-visual works, or the other types of copyrighted works, this analysis also tends to suggest that these works merit protection only against exact or near-exact reproduction.⁴⁶⁶ In the usual case, manual reproduction and marketing of an imitation of such works would simply not provide a competitor a significantly greater copying advantage in producing a competing work than a competitor could obtain by copying to produce an imitation of a non-work product.⁴⁶⁷ A prohibition on exact and near-exact duplication would

464. We have defined a fair return to be one that promotes allocative efficiency, or one that, in practical terms, provides for a work of a given social value a return comparable to those found in the many other productive endeavors competing for the investor's dollar. See note 396.

465. Note that the Mansfield, Schwartz, and Wagner study was based on real world data and incorporated the effects patents have on competitors' copying advantages. See Mansfield, Schwartz, and Wagner, 91 *Econ. J.* at 907 (cited in note 428). As a result, the availability of patent protection for certain new products does not change this conclusion.

466. Under present law, sound recordings receive protection only against exact duplication. See 17 U.S.C. § 114(b).

467. For example, in *Daly*, 6 F. Cases at 1132, the court found copyright infringement where a defendant produced his own play that copied a scene depicting a last-second rescue of an individual bound to railroad tracks by the hero from the plaintiff's work. *Id.* at 1138. It is extremely unlikely that this copying would give the defendant any significant savings in the total cost of creating and performing her play. Such a defendant would still have to pay the actors, obtain a hall, furnish the sets, and create the remainder of the play. She would as a result not be able to underprice *Daly's* ticket prices to any significant extent. Similarly, in *MacDonald*, 144 F.2d at 701, the court remanded for trial based upon similarities, such as the common "reference to trees looking like sentinels." Such similarities, even if the result of copying, would not give the defendant any significant cost advantage in producing a competing novel, and should not therefore suffice to establish infringement. See *id.* at 702 (Clark, J., dissenting) ("Confining myself, therefore, to this issue, for my part I must consider it as

therefore likely eliminate the disproportionate copying advantages competitors would otherwise have with respect to works of authorship and would thereby ensure that the market would not underproduce works of authorship.⁴⁶⁸

Moreover, if copyright provided more extensive protection, it would likely render works of authorship more difficult to copy than the average non-work product. Such overbroad protection would lead, and indeed already has led,⁴⁶⁹ to allocative inefficiency in the form of too much investment in additional works of authorship and too little investment in non-work products. As a result, while we may need to expand copyright's protection beyond exact duplication in order to capture the plagiarist who would otherwise "escape by immaterial variations," as Judge Hand suggested,⁴⁷⁰ we should not expand copyright's protection beyond a near-exact duplication standard if we want to ensure the optimal production of such works.

2. Noncompetitive Uses: Derivative Works, Public Performance, and Public Display

In addition to prohibiting the reproduction of a copyrighted work, the Copyright Act also prohibits particular uses of a copyrighted work. Specifically, the Copyright Act forbids someone who has purchased or otherwise legitimately obtained a copy of a work from using that copy to create a derivative work, from performing the work publicly, or from displaying the work publicly, unless the purchaser pays an additional fee⁴⁷¹ acceptable to the author to license such derivative use.⁴⁷² In most cases, a derivative use will

bordering rather on the fantastic, as implying callousness towards, if not derision of, real literary talent and skill, to suggest that such trifling and coincidental similarities as a microscopic examination of the two books is thought to bring out here be considered to weigh at all against the sharp differences between them in all matters which really should count").

468. Limiting reproduction to cases of exact and near-exact duplication is also more consonant with the ordinary meaning of reproduction. See Leslie Brown, ed., 2 *New Shorter Oxford English Dictionary* 2554 (Clarendon, 1993) ("reproduce: . . . 3b. Repeat in a more or less exact copy; produce a copy or representation of (a work of art, picture, drawing, etc.)"); *Webster's New Collegiate Dictionary* 982 (Merriam, 1974) ("reproduce: . . . c. to imitate closely").

469. See Plant, 1 *Economica* at 183-84 (cited in note 12). See also text accompanying notes 442-46.

470. *Nichols*, 45 F.2d at 121.

471. Whether we are dealing with the making of a film out of a book or the playing of a song on the radio, in almost all cases the user will already have paid the market price to obtain a copy of the work. Thus these rights require an additional licensing fee over and above the market price for a copy in order to make one of the proscribed uses of the work.

472. See 17 U.S.C.A. §§ 106(2), (4), (5).

not substitute for the original work in its original form,⁴⁷³ and such derivative uses are therefore properly considered noncompetitive uses. While these uses do not compete with or reduce demand for the work in its original form, a failure to require derivative users to pay an additional fee for such uses may nevertheless reduce the price an individual would expect to receive for the resources she devotes to creating any given work.⁴⁷⁴ From the perspective of allocative efficiency, however, the relevant question is not whether requiring a license for these uses would increase the averaged price an individual would receive for investing in a work of authorship, but whether requiring such licenses will promote the allocation of society's resources to their highest-valued use.⁴⁷⁵ And on this issue, while the existence of the author's right to control these uses is reasonably plain given the express language of the Copyright Act,⁴⁷⁶ the desirability of granting authors such control is far from clear.⁴⁷⁷

473. See Landes and Posner, 18 J. Legal Stud. at 354 (cited in note 5). For example, a movie version of a novel does not generally substitute for or displace sales of the novel itself. See, for example, *Abend*, 863 F.2d at 1481-82 (noting that a motion picture version of a novel is not likely to decrease sales of a novel); Nimmer and Nimmer, 3 *Nimmer on Copyright* § 13.05[B], at 13-199 to 13-200 (cited in note 57) (same). Similarly, the playing of a musical work on a radio does not usually decrease demand for recordings of the musical work. Indeed, in most cases, both the movie and the playing of the work on the radio will increase demand for the underlying work in its original form, which goes a long way towards explaining the "payola" scandals that have repeatedly cropped up in the music industry. See, for example, Chuck Philips, *Record Industry Nervous over New Payola Prosecution*, L.A. Times D-1, D-5 (Jan. 17, 1995) (discussing the practice of record promoters paying radio stations to increase air-play of their songs).

474. See text accompanying notes 231-48.

475. See, for example, Mackaay, 94 Colum. L. Rev. at 2635-36 (cited in note 22).

476. In dealing with the Copyright Act, we should bear in mind that it directly benefits a well-organized special interest group, authors and publishers, at the expense of a more dispersed group, the public. Given a statute with such a distribution of benefits and burdens, public choice theory predicts that over time the statute will inevitably come to favor more and more the desires of the special interest group at the expense of the more dispersed group. See generally Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Harvard U., 1965); Gordon Tullock, *The Political Economy of Rent-Seeking* (Kluwer, 1988). See also Stewart E. Sterk, *Rhetoric and Reality in Copyright Law*, 94 Mich. L. Rev. 1197, 1244-46 (1996). When combined with some superficially plausible rationale that can serve to screen the legislator's motivations, the concentrated group's disproportionate ability to raise money that can be used—whether in the form of campaign contributions, bribes, or for expert opinions that back the group's position—to convince legislators to favor the concentrated group's position, has proven unfortunately persuasive in convincing our elected representatives to serve the special interest at the expense of the general public. That our elected representatives have therefore broadened copyright's protection to include these additional rights provides no assurance that there is adequate justification for these rights. Awarding authors these rights will often be the result of interest group pressure, combined with a superficially plausible explanation to cover the legislators' actions. See Kay, 13 Intl. J. L. & Econ. at 347 (cited in note 320) ("To put it bluntly, copyright law has evolved for the systematic purpose of securing rents for certain

a. Introduction to Derivative Rights

In addressing derivative rights, I begin with the basic point that by granting the author the exclusive right to perform a copyrighted work publicly, to display a copyrighted work publicly, or to create a derivative work based upon a copyrighted work, we are essentially granting the author the right to engage in price discrimination. By enabling authors to prohibit certain uses unless the user pays a separate and additional fee, we give authors the ability to charge more for certain uses of their respective works. If an individual wants to purchase a musical work recorded on a compact disc and perform the work for her own private enjoyment, she need only pay the market price for the compact disc. If an individual wants to perform the work publicly, for example by broadcasting the work through a radio transmitter, she must pay both the market price to obtain a copy of the work and a fee that the author of the work will accept to license the public performance of the work.⁴⁷⁸ To the extent a derivative user would be "willing"⁴⁷⁹ to pay more for her planned use than the ordinary user is willing to pay for her planned use,⁴⁸⁰ providing an author a separate right to control derivative uses grants the author some ability to charge a correspondingly higher price to those consumers who are likely to value the work more highly.⁴⁸¹

organized producer groups, primarily publishers, record companies, and in the last decade, software houses").

477. See Landes and Posner, 18 J. Legal Stud. at 354-57 (cited in note 5) (discussing the argument for giving the original author or owner control over derivative works).

478. See 17 U.S.C.A. § 101 (defining public performance to include radio transmissions); *id.* § 106(4) (granting the author an exclusive right to perform the musical work publicly).

479. For a discussion of reservation price, see note 15.

480. The price a derivative user would be willing to pay for her planned use will depend on the extent to which the market for selling derivative uses is perfectly competitive and the extent to which the market for purchasing the right to make a derivative use is perfectly competitive. If either the derivative selling or purchasing market is perfectly competitive, then a derivative user would be willing to pay no more than the ordinary use price to obtain a copy of the underlying work. See Robinson, *Imperfect Competition* at 103, 110 (cited in note 11). If the derivative selling market is perfectly competitive, then the derivative users will earn no real profit and hence could not afford more than the ordinary use price for the work. If the derivative purchasing market is perfectly competitive, then the author of the underlying work could obtain no more than the marginal cost of her work from a derivative user.

481. The reproduction right alone gives authors some ability to price discriminate among ordinary use consumers. Thus, an author will often publish her new literary work only in hardback form for a year, before offering a lower-priced paperback form, in an attempt to price discriminate among her readers. See, for example, Fisher, 101 Harv. L. Rev. at 1709 (cited in note 5); Landes and Posner, 18 J. Legal Stud. at 328 (cited in note 5). But see Tyerman, 18 U.C.L.A. L. Rev. at 1110 (cited in note 410) (suggesting that hardback and paperback forms of a work are not substitutes for one another in the minds of "many individuals"). Similarly, an author of an audio-visual work may present her work initially only in full-price theaters, then in dollar theaters, then on cable and videotape, and finally on television, in an attempt to price dis-

While these derivative rights do not enable an author to price discriminate perfectly,⁴⁸² these rights do provide the author a substantial ability to price discriminate among a work's various consumers.⁴⁸³ Once we recognize that these rights essentially grant the author an increased ability to price discriminate, the question of whether these rights are desirable turns on whether, and under what circumstances, such an increased ability to price discriminate would promote allocative efficiency.⁴⁸⁴

As a starting point, we can quickly dispense with the so-called natural rights⁴⁸⁵ basis that proponents have usually advanced for

criminate among those who wish to see her work. See, for example, Hearings at 30 (cited in note 324) (report of Media Statistics, Inc.); John Cirace, *When Does Complete Copying of Copyrighted Works for Purposes Other than For Profit or Sale Constitute Fair Use? An Economic Analysis of the Sony Betamax and Williams & Wilkins Cases*, 28 St. Louis U. L. J. 647, 680 (1984); Landes and Posner, 18 J. Legal Stud. at 328 (cited in note 5).

482. These rights do not enable an author to charge each consumer's full reservation price because an author must still set a specific price for each of the various uses. Ordinary users, for example, need only pay \$24.95 for a hardback copy of their favorite author's latest novel, even if they have a reservation price significantly in excess of that price. As a result, we should consider Professor Goldstein's assertion that the "copyright law in the United States entitles copyright owners to capture the full value that consumers attach to their works," Goldstein, 1 *Copyright* § 1.1, at 7 (cited in note 5), as an expression more of wishful thinking than an accurate summary of copyright law.

483. Some may argue that because the author is selling different products to each of these users—to one the right to enjoy the work privately, to another the right to perform the work publicly—the author is not engaging in price discrimination. A proper definition of price discrimination, however, incorporates not only instances where an individual sells the same product at different prices to different consumers, but it also includes those instances where "two varieties of a commodity are sold (by the same seller) to two different buyers at different net prices, the net price being the price (paid by the buyer) corrected for the cost associated with the product differentiation." Philips, *Price Discrimination* at 6 (cited in note 379). See also Melvin L. Greenhut, George Norman, and Chou-Shun Hong, *The Economics of Imperfect Competition: A Spatial Approach* 4, 102 (Cambridge U., 1987); Scherer, *Industrial Market Structure* at 316-19 (cited in note 140); Paul Milgram, *An Essay on Price Discrimination*, in Feiwel, ed., *The Economics of Imperfect Competition* at 365 (cited in note 372) ("To identify price discrimination . . . modern economists emphasize the motives of the price-setter to create a situation in which the price charged to a customer can be based partly on the value of the good to the customer, rather than just on the cost of producing the good"). As a result, even if we consider a copy of a work for ordinary use and one for derivative use to be different, an author who priced those two products differently would still be engaging in price discrimination unless the difference in price was justified by a corresponding difference in the marginal costs of the two products. See Philips, *Price Discrimination* at 5-7. Given that the only difference in the marginal cost of these two products is the additional transaction costs associated with negotiating the license for the derivative use, any price that would increase the author's net price received (after paying such transaction costs) for a derivative use copy of her work would constitute price discrimination.

484. While the Clayton Act formally forbids price discrimination, see 15 U.S.C. § 13(a) (1994 ed.), the practice remains ubiquitous. See Philips, *Price Discrimination* at 7 (cited in note 379).

485. Given the decisive rejection of natural-rights-based arguments for real property at the end of the *Lochner* era, the continuing viability of natural-rights-based arguments in the

these derivative rights. Given the joint nature of the value associated with every product in our market economy,⁴⁸⁶ the argument that the author of the underlying work should receive a direct share of the value of the derivative uses through a licensing right because the author made the derivative use possible is unpersuasive. Any number of people labor to produce products which then become inputs for someone else's labor. If we believed that it was appropriate, on that basis alone, to assign a direct share of an end product's value by granting a licensing right to everyone whose labor helped create the end product, then clearly authors are not the only ones who would be entitled to such a right. Indeed, if we want to get right down to it, those who provide the essentials of life make possible every other form of labor, including the labor that creates works of authorship and their derivatives. Perhaps we should therefore award these providers separate and additional licensing fees for all the products that their labors make possible.

Yet, we do not. In a reasonably competitive market, providing such rights with respect to non-work products is neither necessary to, nor would it, promote allocative efficiency.⁴⁸⁷ The question is whether

intellectual property realm is puzzling. Even though the basic criticisms the Realists leveled at natural-rights-based real property arguments apply with equal force against natural-rights-based intellectual property arguments, some commentators who would reject out of hand natural-rights arguments for real property nevertheless accept them for intellectual property. As a general matter, I see three reasons why commentators continue to rely on natural-rights arguments in intellectual property today. First, some commentators use it to cover flawed economic analysis, or to substitute idiosyncratic value judgments for reasoned analysis. Second, some commentators like to label themselves as proponents of natural rights in order to preference their positions as advocates. See Plant, 1 *Economica* at 182 (cited in note 12) ("[Proponents of a perpetual common law copyright] did better when they emphasized in those days the interests of authors, just as a century and a half before they found it more profitable to profess anxiety for the safety of the realm"). These commentators seem to believe that by labeling their arguments "natural," people who oppose them must favor unnatural positions. Compare Machlup, *Economic Review* at 23 (cited in note 11) ("Some of the [early] French lawyers conceded that they preferred to speak of 'natural property rights' chiefly for propaganda purposes, especially because some of the alternative concepts, such as 'monopoly right' or 'privilege,' were so unpopular"). Third, some commentators invoke the names of well-known natural rights advocates in order to make a repetitive and unoriginal work seem like something more.

486. See text accompanying notes 338-48.

487. In a perfectly competitive market, products would be priced at marginal cost regardless of the presence or absence of such licensing rights.

Under conditions of perfect competition price discrimination could not exist even if the market could be easily divided into separate parts. In each section of the market the demand would be perfectly elastic, and every seller would prefer to sell his whole output in that section of the market in which he could obtain the highest price. The attempt to do so, of course, would drive the price down to the competitive level, and there would be only one price throughout the whole market.

Robinson, *Imperfect Competition* at 179 (cited in note 11). See also Scherer, *Industrial Market Structure* at 12-13 (cited in note 140) (defining a perfectly competitive market). As a result,

works of authorship differ from non-work products in a way that justifies giving authors such rights when we do not give them to those who produce non-work products. Or to put it another way, is there a difference between works of authorship and non-work products that justifies granting authors a greater ability to price discriminate than we provide those who create non-work products? If we cannot identify such a difference, then we must conclude that granting authors the right to control derivative uses would be undesirable. Specifically, if a property system granted individuals a greater ability to price discriminate in one class of products than it did in another, then individuals would expect a higher price for their resources when invested in a product with respect to which the individual is more able to price discriminate than when invested in an otherwise comparable product with respect to which the individual is less able to engage in price discrimination.⁴⁸⁸ This disparity in price would lead rational individuals to overinvest in, and overproduce, the product that carries a greater price discrimination ability while underproducing the products that carry less such ability. As a result, granting authors more extensive control over derivative uses, with a correspondingly greater ability to price discriminate, would lead the market to overproduce works of authorship and to underproduce non-work products. This remains true unless there is some difference between the respective derivative uses that would mitigate the allocative inefficiency created by granting authors a greater ability to price discriminate.⁴⁸⁹

providing such licensing rights for every conceivable end use of a product would not enable a producer to charge anyone more than marginal cost for the licensing, and would merely increase the transaction costs required to distribute the product to everyone who wanted it.

488. If a work of authorship and a non-work product are comparable in cost and value, except that the work may be copied more easily, prohibiting reproduction will ensure an investor an equivalent private return from investing in either product. If copyright were also to grant the individual the right to pick out and charge certain consumers an additional fee for their use of the work, then the individual could charge the same averaged price for the work as she would charge for the non-work product, but she could also charge certain users an additional fee. See Philips, *Price Discrimination* at 18-19 (cited in note 379). When added to the comparable averaged price the individual would already have received for the work generally, this additional sum would ensure the individual a higher price for resources invested in the otherwise comparable work of authorship. See *id.*

489. Traditional economists assume that the only potential harm from monopoly is the reduced supply of the monopolized product. See, for example, Bork, *Antitrust Paradox* at 107-12 (cited in note 47). As a result, they judge the potential harm of a price-discrimination scheme in terms of its tendency to reduce or increase the supply of the monopolized product, as compared to the product's supply in the absence of price discrimination. See, for example, Scherer, *Industrial Market Structure* at 258-59 (cited in note 140); Fisher, 101 *Harv. L. Rev.* at 1709-10, 1742 (cited in note 5); Louis Kaplow, *The Patent-Antitrust Intersection: A Reappraisal*, 97 *Harv.*

In terms of promoting allocative efficiency, the relevant difference between the derivative use of works and non-work products that may justify granting authors these derivative rights turns on the connection, or the lack thereof, between the number of copies of the underlying work the derivative user must purchase in order to satisfy a given number of derivative consumers. With a work of authorship, an individual need only purchase one copy in order to create a derivative work that will satisfy thousands, and in some cases millions, of derivative consumers. The ability to replicate the attraction of the underlying work from a single copy, whether by using the single copy to create a derivative work and multiplying this copy or by using the single copy to broadcast the underlying work over the public airways, allows the derivative user to satisfy many derivative consumers with only one copy of the underlying work. In contrast, derivative uses of non-work products do not usually share this public good aspect typically associated with the derivative use of a work of authorship. With non-work products, the derivative user must usually purchase a quantity of the underlying non-work product that bears a reasonably direct relationship to the number of derivative consumers the individual intends to satisfy.⁴⁹⁰

That we have identified a difference between the derivative uses of works of authorship and those of non-work products and applied the label public good to it, does not, however, end our analysis. It remains to be seen how and in what circumstances refusing to address this public good aspect of the derivative use of works of authorship might lead to allocative inefficiency and to the

L. Rev. 1813, 1873-76 (1984). Because the ability to price discriminate could increase or decrease the supply of the monopolized product, traditional economists believe that the effects of price discrimination are indeterminate. See, for example, Scherer, *Industrial Market Structure* at 258-59. Once we recognize, however, that it is a question not only of how much of each product, but of which additional products should be produced, the traditional approach no longer adequately defines the problem. We must examine not only how much output price discrimination can ensure, but also of what product.

490. In economic terms, consumption of such non-work products is "rivalrous." See, for example, Paul A. Samuelson, *The Pure Theory of Public Expenditures*, 36 Rev. Econ. & Stat. 387 (1974); Alfred C. Yen, *The Legacy of Feist: Consequences of the Weak Connection Between Copyright and the Economics of Public Goods*, 52 Ohio St. L. J. 1343, 1365 (1991). See also Thomas E. Borcharding, *Competition, Exclusion, and the Optimal Supply of Public Goods*, 21 J. L. & Econ. 111, 111-12 (1978); R.H. Coase, *The Lighthouse in Economics*, 17 J. L. & Econ. 357, 357-59 (1978). Thus, if an individual plans to build several homes, or to serve tomato soup to a large number of customers, she cannot simply purchase one nail, one two-by-four, or three tomatoes, and magically multiply them so that they satisfy all of her derivative consumers. See, for example, Cirace, 28 St. Louis U. L. J. at 657 (cited in note 481) ("Private goods are such that when consumed by A cannot be consumed by B, C, or D. An apple is an example"); Yen, 52 Ohio St. L. J. at 1365 ("If someone eats an apple, no one else may do so. . . . One generally does not obtain an apple to eat unless one purchases it from a willing seller").

underproduction of works of authorship. As the following analysis indicates, the relationship between this public good aspect of works of authorship and allocative inefficiency is not as clear as the talismanic public good label might suggest.

b. Justifying Derivative Rights

To understand how this public good aspect might lead to a misallocation of resources, consider again a situation in which a rational individual seeking the highest return for her resources is facing a decision between two investments. One investment leads to the creation of a new work of authorship, and the other leads to the creation of a new non-work product. Both investments require similar expenditure streams, with a high initial or fixed cost and a constant, relatively low marginal cost, and each leads to a product or work with identical social value. In addition, we will assume that both the product and the work have value for an ordinary and several derivative uses and that the reservation prices of the ordinary and derivative users fairly reflect the ordinary and derivative use value, respectively, for either of the resulting goods.⁴⁹¹ We will further assume that our investor will receive no specific protection against unauthorized derivative uses for either good.

As discussed, if a derivative user can make her planned derivative use simply by obtaining a copy of the underlying work, a derivative user may have a higher reservation price with respect to a work than an ordinary user.⁴⁹² This may also be true for a derivative user of a non-work product.⁴⁹³ The public good aspect associated with the typical derivative use of a work of authorship, however, is likely to create a far more substantial difference between the derivative and ordinary use price for a work of authorship than that for a non-work product.⁴⁹⁴ Specifically, because a derivative user of a work of author-

491. As we shall see, the relation between the derivative users' reservation prices and the derivative use value is somewhat more complicated and will depend on the degree of competition present in the derivative use markets. See Part VI.C.2.c.

492. See text accompanying notes 478-81.

493. The extent of the difference between the ordinary use price and the derivative use price will depend on the degree to which the derivative use market is competitive and the degree to which the derivative user considers other products perfect substitutes for the desired product. See also Part VI.C.2.c.

494. Thus, film producers are willing to pay more than a thousand times the ordinary use price for a copy of a literary work that they can turn into a film. See, for example, Arlene Vigoda, *Crichton's Dino-Size Deal*, USA Today 1D (June 17, 1993) (noting that Michael Crichton sold the film rights to his unpublished work on sexual harassment for \$3.5 million and that

ship will often need to purchase only one copy of the underlying work to satisfy any number of derivative consumers, she will have a reservation price for that one copy that reflects the full real profit she expects to receive for her derivative use of the work. In contrast, because a derivative user of a non-work product must usually purchase a number of units of the underlying non-work product, she cannot concentrate her full real profit into her reservation price for one unit of the underlying product. Instead, she must spread her real profit across the number of units of the underlying product she will need to purchase given the number of derivative consumers she intends to satisfy. As a result, her reservation price for each unit of the underlying product will reflect only a fraction of the total real profit that she expects to earn from her derivative use.

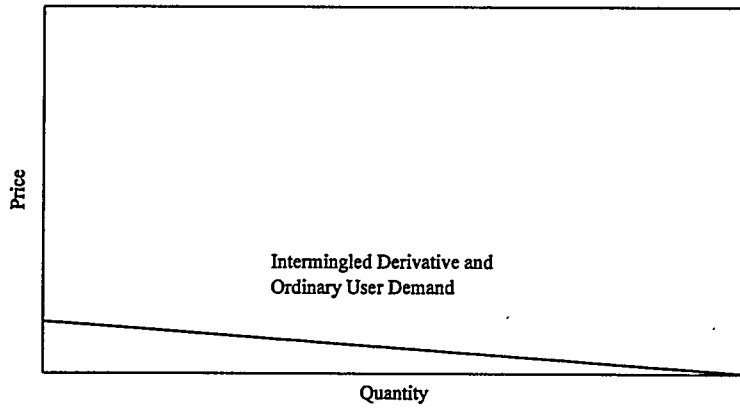
Because of the public good aspect associated with the typical derivative use of a work of authorship, a derivative user is likely to be willing to pay far more for one copy of the work⁴⁹⁵ than a derivative user would be willing to pay for one unit of the non-work product, even where the two derivative uses otherwise earn a comparable real profit, serve a comparable number of derivative consumers, and create comparable social value. This public good aspect is also likely to create a far greater difference between the price the typical derivative user is willing to pay and the price an ordinary user is willing to pay for a copy of the work, than the difference between the ordinary and derivative use reservation price for a unit of the non-work product.⁴⁹⁶ As a result, the demand curve facing our investor for units of the non-work product is more likely to be relatively continuous, as reflected in Figure 7(a).

John Grisham sold the film rights for his novel *The Client* for \$2.5 million). Yet a restaurant owner is not likely to be willing to pay much more than the ordinary use price for the ingredients she needs to create meals for her customers. To some extent, this difference may be due to reduced competition in the derivative use market associated with works of authorship caused by copyright's present scope of protection. See Part VI.C.2.c.

495. Again, we are assuming that her purchase of the copy legally and practically enables her to make her planned derivative use.

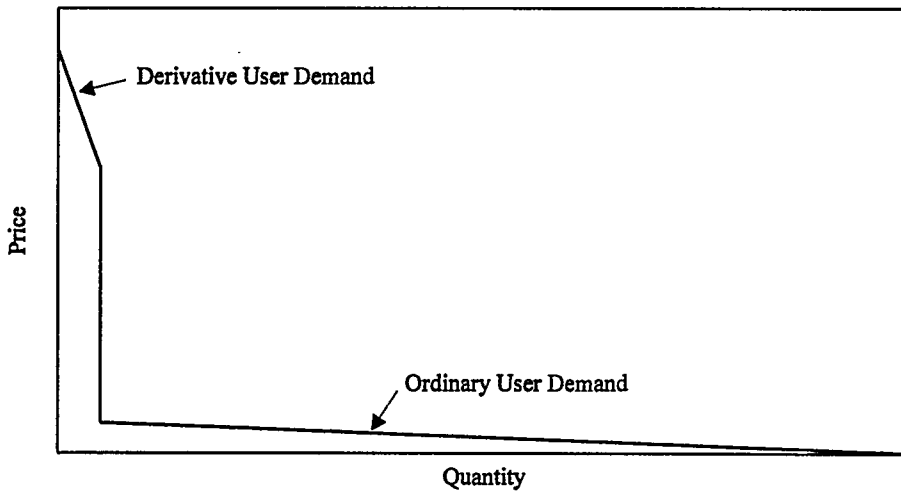
496. In the absence of perfect competition, there is likely to be some, perhaps considerable, degree of variation in the reservation price of various ordinary users. As a result, in some cases the difference between the ordinary and derivative use price for units of a non-work product may be sufficiently small that ordinary variations among the reservation prices of ordinary and derivative users would make it difficult to tell, on the basis of a consumer's reservation price alone, whether that consumer planned an ordinary or a derivative use of the product.

Figure 7(a). Continuous Demand Curve



The demand curve for our investor for copies of the work of authorship, on the other hand, is more likely to be relatively discontinuous, as reflected in Figure 7(b).

Figure 7(b). Discontinuous Demand Curve



If our investor is unable to separate derivative and ordinary users into separate markets and price discriminate between them,⁴⁹⁷ she

497. Our investor would of course prefer to price discriminate between the two groups, and even in the absence of a separate derivative use right has some ability to price discriminate by offering special services of one sort or another along with the copies or units she sells to the derivative users, or by selling to derivative and ordinary users at different time periods. Yet in many cases, such approaches, as with price discrimination more generally, may prove difficult to implement and enforce. See, for example, Lardner, *Fast Forward* at 192-202 (cited in note

will attempt to capture some share of the derivative users' higher reservation prices through her ability to set the price at which she will sell copies of the work or units of the product. In setting such a profit-maximizing price, our investor will face, to the extent that the derivative users have a reservation price higher than the ordinary users, a choice between selling to derivative users at a higher price but foregoing sales to ordinary users,⁴⁹⁸ or selling to ordinary users but foregoing the higher priced sales to derivative users.⁴⁹⁹ While our investor will face this trade-off for either investment, she will face this trade-off more sharply with respect to the work of authorship because the difference between the typical ordinary and derivative use reservation prices is likely to be greater for the work. Given a relatively continuous demand curve, such as the one shown in Figure 7(a), our investor would likely be able to set a price for units of the product that will enable her to capture a considerable part of both the ordinary and the derivative users' demand for her product. In essence, by carefully setting her price our investor could capture some portion of the higher derivative use value without foregoing an undue number of ordinary use sales. Such a balancing act would enable the creator of a non-work product to capture a certain share of both the ordinary and derivative use value of the product.

For the work of authorship, on the other hand, the sharper and often vast difference between the derivative and ordinary use reservation prices, such as the difference reflected in Figure 7(b), will usually render such a trade-off impracticable. If our investor were to attempt to find some middle pricing ground, so that she could obtain some part of the derivative users' higher reservation price and also sell to ordinary users, she would likely reduce her income from her derivative user sales without seeing any offsetting increase in the sales of the work for ordinary use.⁵⁰⁰

336) (recounting movie companies' unsuccessful attempts to separate the rental and home-ownership markets for video cassettes). Nevertheless, the analysis in the text remains accurate so long as our investor's ability to price discriminate, other than through a separate right to control derivative uses, is roughly the same for either the work or the non-work product.

498. In the absence of a legal prohibition on derivative uses, a derivative user could make her planned use simply by purchasing one of the copies that the author marketed for ordinary use.

499. In some cases, such as literary works that appear from the outset destined for a film version, the author can arrange the derivative use first and provide a substantial headstart for the authorized derivative user. See Landes and Posner, 18 J. Legal Stud. at 354-55 (cited in note 5). In other cases, however, such an approach is not practicable either because the derivative use does not become apparent until after the work has been released generally, or because the derivative and general uses ordinarily occur over the same time period.

500. See S.J. Liebowitz, *Copying and Indirect Appropriability: Photocopying of Journals*, 93 J. Pol. Econ. 945, 948 (1985). As a result, her profit-maximizing price will, depending on the

In many cases the public good aspect associated with the typical derivative use would force our investor to choose between setting the price of copies of the work for one market or the other—either setting a price that will maximize her profit from derivative use sales or a price that will maximize her profit from ordinary use sales. For an investment characterized by high fixed and low marginal costs, either pricing decision will reduce the price our investor would receive for the resources she invested in a work of authorship that has value for both ordinary and derivative uses. If she chooses the first pricing alternative, she will necessarily price copies of her work beyond the reach of all but perhaps a very few ordinary users, and will therefore forego obtaining a share of the ordinary use value of her work. If she chooses the second, she will forego her opportunity to obtain an increased price for, and an increased share of, her work's derivative use value. As a result, if the public good aspect of the typical derivative use of a work of authorship forces our investor to choose between pricing for either the derivative use market or the ordinary use market, she would receive a price for her resources that reflects either the ordinary or derivative use value of her work, but not both. In contrast, if our investor devoted her resources to an otherwise comparable non-work product, she would more often be able to set a price for units of the product that reflects some combination of the ordinary and derivative use value of the product. As a result, price setting alone would often enable our investor to capture a greater share of the product's combined derivative and ordinary use value than that associated with an otherwise comparable work.⁵⁰¹

Because of this difference, we can certainly imagine a case where the combined ordinary and derivative use value of a work of authorship is comparable to the combined ordinary and derivative use value of a non-work product; yet an individual, absent a prohibition on unlicensed derivative uses, would expect a lower price for her re-

relative demand curves for the two groups, either fall at a point where only derivative users will purchase the work or at a point where both ordinary and derivative users will purchase the work. If the profit-maximizing point falls at the ordinary use level, the author will receive nothing extra for the higher reservation prices held by the derivative users. If the profit-maximizing point falls at the derivative use level, then the author will make no sales to general consumers at all, and thereby destroy a substantial part of the social value of her work as well as forego any income from such sales. We could avoid the potential loss from such derivative use pricing by allowing others to prepare and sell unauthorized copies for ordinary use.

501. See Liebowitz, 93 *J. Pol. Econ.* at 948-49 (cited in note 500).

sources when invested in the work.⁵⁰² As we saw before, when a property system generates a lower price for resources when invested in an otherwise comparable work, such a property system can lead to allocative inefficiency.⁵⁰³ Allowing unlicensed derivative uses may, therefore, lead the market to underproduce works of authorship. Copyright can address this risk of underproduction by prohibiting unlicensed derivative uses. Such a prohibition would allow authors to price access for derivative uses separately from access for ordinary uses. It would, thereby, increase the averaged price an individual would expect for investing in the work, and make investing in works of authorship relatively more attractive.

Such a prohibition may, however, also contribute to allocative inefficiency. Specifically, by allowing the author to price for ordinary and derivative uses separately, a prohibition on unlicensed derivative uses may enable an individual to recover a share of the work's combined derivative and ordinary use value greater than the share she could recover for an otherwise comparable non-work product. As a result, we can certainly imagine a case where a work and a non-work product are of equal social value; yet, an individual, *because of* a prohibition on unlicensed derivative uses of the work, would expect a

502. For example, consider a case where there is a work, one copy of which is sought by 40 individuals for different derivative uses, each of whom has a reservation price of \$1,000, and by 10,000 individuals for ordinary use, each of whom has a reservation price of \$10.00. If the marginal cost of each copy of the work for either use is \$5.00, then the work's author would maximize her profit by selling to all users at a price of \$10.00 a copy. She would, therefore, sell 10,040 copies at \$10.00 a piece. Given the reservation prices and quantity demanded, such a work has a value of \$40,000 for derivative uses, and \$100,000 for ordinary uses. As a result, for a work with a combined derivative and ordinary use value of \$140,000, the individual would receive an averaged price of \$2.00 for every unit of resources invested to create the work and its copies. In contrast, consider a case where there is a non-work product, 204 units of which are sought by each of 10 derivative users, at a reservation price of \$19.61 per unit, and one unit of which is sought by 8,000 ordinary users, at a reservation price of \$12.50. If the marginal cost of the product is \$5.00, then the product's creator would maximize her profit by selling to all users at a price of \$12.50 per unit. She would, therefore, sell a total of 10,040 units of her work at \$12.50 each, and would receive an averaged price of \$2.50 for every unit of resources invested. Given the reservation prices and the quantity demanded, the value of her product for derivative use would be roughly \$40,000, and \$100,000 for ordinary use. As a result, for a product with roughly the same social value as the work, requiring a similar investment of resources, an individual would receive a higher averaged price for her resources by investing in the otherwise comparable non-work product. Of course, we could simply reverse the sales figures and generate the opposite result. Such an example, however, would not as accurately reflect our expectations of how the public good aspect associated with the derivative use of a work will likely affect the variation in the ordinary and derivative use reservation prices. In creating this example, I have assumed that the derivative reservation price reflects the full value of each possible derivative use. The relation between reservation price and derivative use value is not, however, that straightforward. See Part VI.C.2.c. Nevertheless, we can rely on the reservation price of the derivative users as a reflection of the derivative use value so long as the derivative use markets experience similar degrees of monopolization.

503. See text accompanying notes 381-90.

higher price for resources invested in the work.⁵⁰⁴ At the margins, such disparity between the price received and the value created would lead individuals to overinvest in and overproduce works of authorship, at the expense of more valuable, non-work products.

To reconcile the respective risks to allocative efficiency that either allowing or prohibiting unlicensed derivative uses will create requires an empirical consideration of the relative risks to allocative efficiency involved,⁵⁰⁵ of the marginal administrative expense that protection would entail, and of whether, if forced to choose, underprotection or overprotection comes closer to ensuring that an individual would expect roughly the same price for her resources whether invested in a work or a non-work product of roughly equal social value. In the absence of such empirical evidence, this analysis nevertheless suggests that copyright will promote allocative efficiency by prohibiting only those derivative uses that satisfy, at a minimum, the following three criteria.

First, copyright should protect works of authorship against only those derivative uses that exploit a work's public good aspect. If a derivative use of a work of authorship does not allow the derivative user to satisfy any number of consumers from only one or a very few copies of the underlying work, then such derivative use is not materially different from the typical derivative use of a non-work product. So long as the derivative use retains a reasonably direct connection between the number of copies of the underlying work that must be purchased and the number of derivative consumers who can be satisfied, we are unlikely to find an unusually sharp difference between the reservation prices of the ordinary and derivative uses of the work. The difference between the ordinary and derivative use reservation price is, in this case, unlikely to be significantly greater than the difference between the ordinary and derivative use reservation prices typically associated with non-work products generally.⁵⁰⁶

504. For example, if copyright prohibited the 40 derivative consumers of the work in note 502 from making their derivative use without a license, such a prohibition would enable the individual to charge an ordinary use price of \$10.00, and a derivative use price of \$1,000 for copies of the work. Given such pricing, she would receive an averaged price of \$2.79 per unit of resources invested in the work, higher than the \$2.50 per unit she would receive for investing in the otherwise comparable non-work product.

505. This analysis should also consider the relative ability of an individual to control derivative uses through contract and other means. See, for example, Landes and Posner, 18 *J. Legal Stud.* at 326 (cited in note 5).

506. A derivative user should be free, for example, to cut out pages of a work and market those separately, just as a restaurant owner is free to chop a tomato into pieces and market

Second, copyright should protect works of authorship against derivative uses that exploit a public good aspect of the underlying work only in circumstances where the public good aspect exploited is unique to works of authorship. Because each and every product conveys information of one sort or another about itself, its composition, or its nature, non-work products have a public good aspect as well.⁵⁰⁷ Those who know how to read the information conveyed can take that information and publish a work based on it, usually without being required to obtain the permission of the creator of the non-work product. Thus, a chemist could purchase a bottle of Coca-Cola, analyze the product to discover its composition, and publish the resulting information without incurring any liability to the creator of Coca-Cola.⁵⁰⁸ Similarly, an individual can purchase one unit of a non-work product, and then proceed to produce a work based on the product, its identity, or its characteristics, which reviews the product,

those pieces separately. In terms of the statutory definition of "derivative work," such action does not produce a work that is "based upon one or more preexisting works," 17 U.S.C. § 101 (defining a derivative work), rather the resulting product is (a piece of) the preexisting work, see *C.M. Paula Co. v. Logan*, 355 F. Supp. 189, 192 (N.D. Tex. 1973) (so concluding). But see *Mirage Editions, Inc. v. Albuquerque A.R.T. Co.*, 856 F.2d 1341, 1343 (9th Cir. 1988) (reaching the opposite conclusion); *National Geographic Soc. v. Classified Geographic*, 27 F. Supp. 655, 660 (D. Mass. 1939) (same). Similarly, once a copy is sold, the resale of that copy will not usually enable the reseller to satisfy any number of "derivative" consumers with only one copy of the underlying work. As a result, copyright should not and does not allow an author to control the resale of a copy of a work. See 17 U.S.C. §§ 109(a), (c) (codifying the first sale doctrine). Short-term leasing, or lending, of a copy may, however, enable the lender to satisfy any number of derivative consumers with only one copy of the underlying work, particularly with respect to the most easily copied works such as computer programs and sound recordings. For these works, the borrowing (or derivative) consumer can simply take the copy home, make her own copy, and then return it to the lender, who can in turn lend it out to another derivative consumer. For that reason, copyright should and does more carefully control the lending of the works susceptible to such derivative "copying." *Id.* § 109(b).

507. See Adelstein and Peretz, 5 *Intl. Rev. L. & Econ.* at 217-20 (cited in note 257) (noting that intellectual property can exist in a more or less "pure" form depending on the ease with which it may be extracted from the physical object in which it is reflected, carried, or contained).

508. While the Coca-Cola formula may be protected by trade secret law, trade secret law does not prohibit legitimate reverse engineering. See, for example, Restatement of Torts § 757, comments a, g & illustration 2 (1939) ("One who discovers another's trade secret properly, as, for example, by inspection or analysis of the commercial product embodying the secret . . . is free to disclose it or use it in his own business without liability to the owner"); Restatement (Third) of Unfair Competition § 43 (1995); *Chicago Lock Co. v. Fanberg*, 676 F.2d 400, 405 (9th Cir. 1982). Of course, even if the formula became public knowledge, that would not likely undermine Coca-Cola's market position which depends principally on Coke's well-known trademark and advertising expenditures, rather than on the "secrecy" surrounding its precise formulation. See *Warner-Lambert Pharmaceutical Co. v. John J. Reynolds, Inc.*, 178 F. Supp. 655, 657 (S.D.N.Y. 1959) (noting that Warner-Lambert was still earning sufficient funds from production of Listerine mouthwash to cover its annual royalty payment of \$1.5 million in the late 1950s, even though the formula for Listerine mouthwash became public knowledge before 1949).

parodies it, criticizes it, or otherwise takes advantage of the public good implicit in the product's identity and public persona.⁵⁰⁹

While tort law's doctrines of product or trade disparagement place some limits on the factual assertions an individual can make regarding another's product,⁵¹⁰ the law does not directly or indirectly prohibit another from making money by exploiting these public good aspects of non-work products. Nor do these doctrines provide the creator of such non-work products the right to control and license these derivative uses. Because these derivative uses exploit a public good aspect when done with respect to non-work products, that such derivative uses would also exploit a public good aspect if done with respect to a work of authorship would not justify granting authors the right to control such derivative uses.⁵¹¹ As a result, even if the

509. Courts have begun to interpret trademark law in a manner that limits to some extent the ability of others to use another's trademark in the context of making fun of another's non-work product. See *Mutual of Omaha Ins. Co. v. Novak*, 836 F.2d 397, 398-402 (8th Cir. 1987) (finding infringement of Mutual of Omaha's trademark by the phrase "Mutant of Omaha"); *Coca-Cola Co. v. Gemini Rising, Inc.*, 346 F. Supp. 1183, 1193 (E.D.N.Y. 1972) (granting a preliminary injunction against the "ENJOY COCAINE" slogan as likely to infringe the "ENJOY COCA-COLA" trademark). While I believe these efforts are misguided, they remain the exception, not the rule. See *Nike, Inc. v. "Just Did It" Enterprises*, 6 F.3d 1225, 1231-32 (7th Cir. 1993) (reversing the grant of summary judgment finding trademark infringement and noting that "[a]n intent to parody, however, raises the opposite inference" that consumers are not likely to be confused); *Anheuser-Busch, Inc. v. L&L Wings, Inc.*, 962 F.2d 316, 318-19 (4th Cir. 1992) (holding that a T-shirt that presented an ad for Myrtle Beach that mimicked many aspects of Anheuser-Busch's Budweiser trademark, trade dress, and advertising slogans did not infringe Anheuser-Busch's marks); *Cliffs Notes, Inc. v. Bantam Doubleday Dell Pub. Group, Inc.*, 886 F.2d 490, 496-97 (2d Cir. 1989) (holding that a parody that mimicked some aspects of the plaintiffs' trade dress and trademarks was not infringing); *Jordache Enterprises, Inc. v. Hogg Wyld, Ltd.*, 828 F.2d 1482, 1486 (10th Cir. 1987) (holding that a successful parody is unlikely to cause actionable trademark confusion); *L.L. Bean, Inc. v. Drake Publishers, Inc.*, 811 F.2d 26, 33-34 (1st Cir. 1987) (holding that a parody of another's trademark is protected by the First Amendment).

510. See, for example, *Paramount Pictures, Inc. v. Leader Press*, 106 F.2d 229, 231 (10th Cir. 1939) ("One without privilege . . . has no right to issue and publish an untrue or deceptive statement of fact which has a disparaging effect [when] . . . a reasonable person [would] foresee that it will have such effect"); 15 U.S.C. § 1125(a)(1)(B) (1994 ed.); Restatement (Third) of Unfair Competition §§ 2, 3.

511. We could equalize our treatment of works and non-work products with respect to such derivative uses by allowing the creator of either sort of product to control such derivative uses. Such control, however, would grant creators far too much power to limit the ability of others to discuss their work or product freely and would be inconsistent with the notions of free speech reflected in the First Amendment. See, for example, Gordon, 82 Colum. L. Rev. at 1635-37 (cited in note 41). See also Rebert C. Denicola, *Copyright and Free Speech: Constitutional Limitations on the Protection of Expression*, 67 Cal. L. Rev. 283 (1979); Rochelle C. Dreyfuss, *Expressive Genericity: Trademarks as Language in the Pepsi Generation*, 65 Notre Dame L. Rev. 397 (1990); Paul Goldstein, *Copyright and the First Amendment*, 70 Colum. L. Rev. 983 (1970); Pierre N. Leval, *Toward a Fair Use Standard*, 103 Harv. L. Rev. 1105 (1990); L. Ray Patterson, *Free Speech, Copyright, and Fair Use*, 40 Vand. L. Rev. 1 (1987); Diane L.

difference between the reservation prices for the ordinary use and such derivative uses was substantial for works of authorship, it would presumably be equally substantial for non-work products because the derivative use exploits a public good aspect of the underlying work or product in either case.⁵¹²

Third, in some cases, simply because of the nature or character of the derivative use at issue, a derivative user, even though she takes advantage of a public good aspect uniquely associated with a work of authorship, will not have a reservation price significantly greater than that of the typical ordinary user. To promote allocative efficiency, copyright should not prohibit such derivative uses.⁵¹³ Instead, even for those derivative uses that take advantage of a public good aspect uniquely associated with a work of authorship, copyright should prohibit only those derivative uses which, by their very nature, are likely to have a reservation price substantially greater than the ordinary use price.

Zimmerman, *Information as Speech, Information as Goods: Some Thoughts on Marketplaces and the Bill of Rights*, 33 Wm. & Mary L. Rev. 665 (1992).

512. Examples of this approach might include works about other products or works. For example, we allow anyone to write a repair manual for particular cars, or magazine articles that describe a piece of real property. As a result, copyright should allow similar leeway for individuals who would like to write about other copyrighted works. Compare *Twin Peaks Prods.*, 996 F.2d at 1371-1373 (finding that a book about a television series infringed the copyrights in the audio-visual works that constituted the television series); *Horgan*, 789 F.2d at 162-63 (suggesting that still photographs of a ballet could infringe a copyright in the ballet's choreography); *Addison-Wesley Pub. Co. v. Brown*, 223 F. Supp. 219 (E.D.N.Y. 1963) (finding that a book that provided the answers to problems in a math textbook was an infringing derivative work), with *Amsinck v. Columbia Pictures Industries, Inc.*, 33 U.S.P.Q.2d 1131, 1133-34 (S.D.N.Y. 1994) (finding that a mobile that included images of the plaintiff's copyrighted movie was not an infringing copy of the plaintiff's work); *Haberman v. Hustler Magazine, Inc.*, 626 F. Supp. 201, 208-14 (D. Mass. 1986) (finding that a reproduction of the plaintiff's artwork in a magazine was a fair use when done as part of a review of the work); *Mura v. Columbia Broadcasting System, Inc.*, 245 F. Supp. 587, 590 (S.D.N.Y. 1965) (holding that a broadcast that contained images of copyrighted puppets was not an infringement of the puppets' copyrights). It might also include works intended to operate or work with another's product. Compare *Lewis Galoob Toys, Inc. v. Nintendo of America, Inc.*, 964 F.2d 965, 967-69 (9th Cir. 1992) (finding that a game genie designed to work with Nintendo's game system was not a derivative work), with *Worlds of Wonder, Inc. v. Vector Intercontinental, Inc.*, 653 F. Supp. 135, 138-40 (N.D. Ohio 1986) (finding that tapes prepared to work with one of Worlds of Wonder's toys amounted to infringing works).

513. Examples might include using a radio to perform musical works to provide a pleasant shopping background or mood in a retail clothing store, see 17 U.S.C. § 110(5), the performance of a nondramatic literary or musical work in certain non-profit settings, see id. §§ 110(3), (4), (6), (8), (10), or the public display of a purchased copy of a work to "viewers present at the place where the copy is located" because that is the ordinary use of many such works, see id. § 109(c). To the extent these exceptions identify instances where the derivative user is not likely to have a reservation price significantly greater than that of ordinary users, these exceptions promote allocative efficiency and cannot be written off as "[a] kind of copyright pork-barrel . . . with exemptions from liability being granted to favored constituents." Ralph S. Brown, *Eligibility for Copyright Protection: A Search for Principled Standards*, 70 Minn. L. Rev. 579, 593 (1985).

If a derivative use does not satisfy each of these three criteria, then the difference between the ordinary and derivative use reservation prices for a work of authorship will not differ significantly from those for non-work products. As a result, an author will not face, or not face more sharply than the creator of a non-work product, the choice between selling to these derivative users at a higher price but foregoing sales to ordinary users, or selling to ordinary users generally but foregoing higher priced sales to these derivative users. In such cases an author's ability to set the price at which she will sell copies of her work should enable her to capture a share of her work's value for these derivative uses that is comparable to the share the creator of a non-work product can capture with respect to the derivative uses of her product. As a result, copyright should leave authors to recover what they can of the higher reservation prices associated with these derivative uses through the ability to balance higher price against greater sales volume in setting the price at which they will sell copies of their respective works. While using the price mechanism to capture that share, rather than relying on a separate licensing right, would force an author to choose between a higher sales price and greater sales volume, the creators of non-work products routinely face that trade-off. Moreover, to do otherwise by providing an author with the right to control such derivative uses would itself create allocative efficiency by giving authors a disproportionate ability to capture the derivative use value associated with their works. As a result, when the derivative use of a work of authorship does not create a difference between the ordinary and derivative use reservation prices substantially greater than the difference between such prices typical for non-work products, copyright should not protect the author against such derivative uses.

Having identified the three criteria that define where there is at least a plausible efficiency justification for granting authors the right to control the unlicensed derivative use of their respective works, we can turn to the question of how broadly copyright should protect an author against such a derivative use, assuming that the empirical evidence would establish that such protection is appropriate. In approaching this issue we must keep in mind that allocative efficiency cuts both ways. It can justify granting authors the right to control unlicensed derivative uses in circumstances where such use would lead an individual to expect a price for resources invested in a work of authorship lower than the price she would expect for investing in an otherwise comparable non-work product.

But it also requires a limit to those derivative rights to prevent copyright from leading an individual to expect a price for resources invested in a work that is higher than the price she would expect for investing in an otherwise comparable non-work product. In order to promote allocative efficiency, we must therefore ensure that copyright not define an author's derivative rights so broadly that an individual can recover a share of the derivative use value of a work greater than the share that she can recover with respect to an otherwise comparable non-work product.

c. Scope of the Right

To understand when an author's derivative rights become overbroad, we must return to the relationship between derivative use value, the derivative user's real profit, and the derivative user's reservation price. In analyzing an investment choice between a work and a non-work product, where both have ordinary and derivative use value, I assumed that the reservation price associated with a derivative use was a fair reflection of the value of the work or product for that derivative use.⁵¹⁴ Yet such an assumption is valid only to the extent that two derivative use markets experience similar degrees of competition. If two derivative uses are otherwise comparable, yet one derivative use market is less competitive than another, then an individual will earn a more substantial real profit by being the first to enter the less competitive derivative use market than she could earn by being the first to enter the more competitive derivative use market. As we saw in our discussion of competitive copying more generally, the longer it takes others to enter a market, and the less cost advantage she can obtain by imitating earlier market entrants, the higher the price the first individual into a market will receive for the resources she invested to enter such a market.⁵¹⁵ For derivative use markets, this higher price reflects the first entrant's ability to capture, in the form of rent or real profit, a greater share of the derivative use's value in a less competitive derivative use market.⁵¹⁶

514. See text accompanying note 491.

515. See text accompanying notes 375-78.

516. The proof is straightforward that an individual will capture a greater share of the value of a product in her averaged price when a market is more monopolistic. First, the value of a product is less in a more monopolistic market than in a less monopolistic market, because the price will be higher in the more monopolistic market and fewer units of the product will therefore be sold. Second, the averaged price received will be higher in a more monopolistic market than in a less monopolistic market. Because the averaged price will be higher and the

To the extent that an individual faces a choice between investing in one of two goods, the first with derivative use markets that are less competitive, and the second with derivative use markets that are more competitive, she will likely receive a somewhat higher price for resources invested in creating the good with the less competitive derivative use market, even if the two goods are otherwise comparable. To illustrate, assume that two goods each have a single derivative use, and that each derivative use generates identical social value. In such a case the first entrant into the less competitive derivative use market will earn a somewhat higher real profit than the first entrant in the more competitive derivative use market. The first entrant into the less competitive derivative use market will, therefore, have a correspondingly higher reservation price for the underlying good than will the first entrant into the more competitive derivative use market. Thus, the derivative use reservation price associated with the first good will likely be higher than that of the second. To the extent that our investor can capture a comparable share of the derivative use reservation price for either product, she will receive a somewhat higher price for the derivative use of the first product than she will receive for the second. If her costs incurred and price received from ordinary users is otherwise the same for the two goods, the somewhat higher price she receives from the first product's derivative use will ensure our investor a higher total return, and a somewhat higher price, for resources invested in the first good than she would receive by investing in the second, even though the two goods are otherwise comparable.

The higher price received for resources invested in one of two otherwise comparable goods will lead to allocative inefficiency as individuals will invest their resources in creating additional goods that have less competitive derivative use markets, when the resources could more valuably have been used to create additional goods that have more competitive derivative use markets. As a result, if copyright were to grant an author a derivative use right that effectively enabled an author, through careful exercise of her derivative use right, to reduce the degree of competition in the derivative use markets for her work below that typically found in the derivative use markets for non-work products, copyright would likely award authors a greater share of the derivative use value associated with their re-

value of the work lower in a more monopolistic market, an individual will capture a greater share of a product's value in a more monopolistic market.

spective works than we enable the creators of non-work products to capture with respect to their products. Such a use would lead to allocative inefficiency in the form of too many additional works at the expense of more valuable non-work products.

To determine how broadly copyright should protect authors against unlicensed derivative uses, assuming that some such protection is appropriate, we must resolve two issues: (1) what degree of competition is appropriate in derivative use markets for works of authorship? and (2) how do we define an author's derivative use rights to ensure such a degree of competition? To answer the first question, we begin with the general standard that the degree of competition in the derivative use markets for works of authorship should be roughly equal to that found in the derivative use markets for non-work products. Such a standard will tend to ensure that the real profit associated with a derivative use and the corresponding derivative use reservation price provide a reasonably consistent reflection of the social value associated with that derivative use (in that a higher derivative use reservation price indicates a higher derivative use value and vice versa). The degree of competition likely in a derivative market will turn on the ease with which competitors can produce competing versions of an authorized derivative work and the extent to which consumers will perceive such competing versions to be perfect substitutes for the authorized derivative work. To ensure a comparable degree of competition in the derivative markets for works of authorship as there is in the derivative markets for non-work products, we must make it as easy, but no more so, for a competitor to produce a competing version of an authorized derivative work as it is for a competitor to enter the derivative markets for non-work products. We have already identified near-exact duplication as the level of protection copyright should provide to ensure that competitors face as difficult, but no more so, a task in producing a competing version of a work of authorship as competitors face in producing a competing version of a non-work product.⁵¹⁷ To the extent that similar forms of copying would produce comparable copying advantages with respect to an authorized derivative work as they would with respect to an original work, a proposition which seems likely,⁵¹⁸ a prohibition on exact or near-exact duplication will likely

517. See text accompanying notes 463-68.

518. For example, there is no reason, *ex ante*, to believe that two audio-visual works, one based upon a literary work and one from scratch, which are otherwise comparable, would present materially different challenges to copying competitors. Whether the authorship costs of the work are entirely in the form of script-writing expenses or are split between script-writing

make an authorized derivative work as difficult for a competitor to copy as the typical non-work product.⁵¹⁹ By making an authorized derivative work as difficult, but no more so, for a competitor to copy as a non-work product, such a standard should ensure an appropriate degree of competition in the derivative markets associated with a work.⁵²⁰

expenses and a licensing fee, the various copying techniques should provide comparable advantages to competitors in producing competing versions of either audio-visual work. Moreover, to the extent that the two audio-visual works are otherwise comparable—that they have a similar social value—the author(s) of each audio-visual work should receive comparable private returns to ensure the optimal allocation of society's resources. See *id.* Having to split the authorship fee between a derivative author and an underlying work author would not justify increasing copyright protection with respect to the ultimate product any more than the joint authoring of an original work would. In either case, the total private return on the authorship investment should remain comparable to that available on an otherwise comparable work with a single author. Once copyright ensures an appropriate total return, it can leave the two authors to their own devices to determine a fair split of the authorship return depending on their relative contributions or other relevant factors, but in neither case should the mere fact that two authors were involved persuade us to provide more extensive protection, and hence ensure a higher (total) private return, for either sort of joint work than we provide for a solo work. To do otherwise would lead to allocative inefficiency. At the margins, individuals would invest together in less valuable, but more broadly protected, jointly authored works, than in more valuable solo works and non-work products.

519. One relevant difference between the competitor's advantage in producing a competing version of an original work is that a competitor might be able to anticipate an original derivative work and use the underlying work to produce an unauthorized derivative work before the authorized derivative work is published. This would reduce and in some cases eliminate the lead-time period the authorized derivative work would enjoy if competitors were required to wait until the derivative work was published before they began work on their competing versions. Moreover, because prohibiting those forms of copying that unduly reduced the lead-time period was an important part of rendering works of authorship as difficult to copy as non-work products, allowing competitors to produce competing versions of a derivative work in ways that would eliminate this lead-time period may render an authorized derivative work more easily "copied" than original works or non-work products. Such a result would reduce the private return an individual would expect on an authorized derivative work. This would in turn reduce the reservation price of derivative users for the derivative work right and would therefore reduce the price the author of the underlying work could extract as a licensing fee for the derivative work right. In some cases, allowing competitors to begin producing transformative derivative works before the author of the underlying work can bring a nontransformative derivative to market might force the author to choose between the derivative market and the ordinary use market. Because such a choice might lead to allocative inefficiency, an argument can be made that copyright should prohibit both nontransformative and transformative derivative works until either (1) an authorized derivative work appears, or (2) the author of the underlying work has a reasonable opportunity to bring an authorized derivative work to the market, whichever occurs first.

520. Please recall that the standard was developed based upon somewhat limited empirical evidence. As a result, even though the standard fits the existing evidence and comports with a common sense understanding of how broad copyright's protection should be to render works of authorship as difficult, but no more so, for a competitor to copy as non-work products, further empirical evidence may establish the need for a somewhat broader, or narrower, standard of protection.

Having defined the sorts of copying which we must prohibit and which we must allow to ensure an appropriate degree of competition in a work's derivative markets, we need only define the derivative work right⁵²¹ consistently. Copyright can, as a practical matter, ensure such consistency by granting the author of the underlying work a degree of protection against unauthorized derivative works that corresponds to the degree of protection that the reproduction right provides against competing works.⁵²² In other words, to the extent that copyright should prohibit only exact or nearly exact duplication under the reproduction standard, copyright should apply a similar standard to unauthorized derivative works and prohibit as an infringing derivative work only those instances where an individual has exactly or nearly exactly reproduced a copyrighted work in a new language or medium of distribution.⁵²³ Whether considered under the reproduction standard or the derivative use standard, any significant transformation of or variation from the underlying work should preclude a finding of infringement even if the underlying work remains recognizable.

521. To the extent that copyright limits the reproduction right to prohibit only exact or near-exact reproductions, as the empirical evidence suggests it should, see *id.*, this scope will ensure an appropriate degree of competition in the markets for the underlying works unless the market for assigning public performance or public display rights becomes monopolistic or oligopolistic for reasons unrelated to the precise scope of the protection copyright affords any given work. See, for example, *Alden-Rochelle, Inc. v. ASCAP*, 80 F. Supp. 888, 894 (S.D.N.Y. 1948) (finding that ASCAP was illegally restraining trade and fixing prices in granting public performance licenses); *M. Witmark & Sons v. Jensen*, 80 F. Supp. 843 (D. Minn. 1948) (same). See also *Report of the Register of Copyrights* at 5 (cited in note 3). As a result, so long as the public performance or display right encompasses only the performance or display of a work that constitutes an exact or near-exact duplication of the underlying copyrighted work, the public performance and public display rights should not limit the degree of competition that will be present in the derivative use (public performance or display) market. In those circumstances where the public performance or display of a work would implicate the three criteria that together suggest the likelihood that allowing unlicensed derivative use of a work would lead to allocative efficiency, copyright could properly protect an author against such public performance or display.

522. See, for example, *Litchfield*, 736 F.2d at 1357 (relying on the reproduction standard to determine whether a later work constituted an infringing derivative work); *Twentieth Century-Fox*, 715 F.2d at 1329 n.4 ("Where defendant's work is adapted for use in a medium different than that of plaintiff's, the test for infringement remains the same"); *Nimmer and Nimmer*, 1 *Nimmer on Copyright* § 3.01 (cited in note 57) ("[A] work will be considered a derivative work only if it would be considered an infringing work if the material that it has derived from a pre-existing work had been taken 'without consent'").

523. I realize that in transferring a work into another language or medium, some changes in the underlying work will inevitably occur. See, for example, *Umbreit*, 87 U. Penn. L. Rev. at 947-51 (cited in note 102); *Dam v. Kirk La Shelle Co.*, 175 F. 902, 907 (2d Cir. 1910). Yet, despite this difficulty, I believe the proposed standard is workable if phrased in terms of reproducing the underlying work as nearly as possible given the constraints of the new language or medium of distribution.

While this proposed standard significantly narrows the present scope of the derivative work right, defining the derivative work right more broadly to encompass, for example, any reuse of expression, would enable the author of the underlying work, through licensing and infringement suits, to reduce the degree of competition in her work's derivative markets. Specifically, such a broad derivative work right would enable an author to prohibit potential competitors in the derivative work market from undertaking the nonliteral copying that we have already identified as necessary to ensure an appropriate degree of competition in the derivative work market. By prohibiting such nonliteral copying, the underlying work's author could make the task of imitating an authorized derivative work more difficult than the task facing competitors of non-work products. Such protection would make an authorized derivative work more difficult for competitors to copy than non-work products and would therefore limit the degree of competition present in the derivative use markets associated with works of authorship. By reducing the degree of competition in her work's derivative markets, the author of the underlying work could enable each of her authorized derivative users to capture in the form of rent or real profit a share of the authorized derivative use value which would be greater than the share that derivative users would usually capture with respect to non-work products. The author of the underlying work in turn could, by pricing the derivative right appropriately,⁵²⁴ capture the derivative users' (increased) rents,⁵²⁵ and thereby capture a share of her work's derivative use value greater than that the creator of a non-work product can capture. Providing such protection would therefore enable an author to extract a share of the derivative use value associated with her work greater than the share we permit the creators of non-work products to extract. This would lead an indi-

524. The author can recover that rent simply by setting a profit-maximizing price for the derivative use licenses. Her ability to recover the rent will not ordinarily present a bilateral monopoly negotiating situation, because she can license her work to one of any number of potential derivative users. Compare *Bartsch v. Metro-Goldwyn Mayer, Inc.*, 391 F.2d 150, 155 (2d Cir. 1968) (noting that, once an author has authorized the creation of a derivative work, new technologies or markets may, if unaddressed in the original authorization, create a bilateral monopoly negotiating situation).

525. Of course, once the author of the underlying work has capitalized what would have been rents for the derivative users into the price of the derivative use license, the capitalized rents will be a part of the cost of the derivative use and will no longer be rents. But, as discussed in note 282, whatever label we apply, the additional price received for resources invested represented by such capitalized rents can lead to allocative inefficiency.

vidual to expect a higher price for her resources when invested in a work of authorship than she would expect for investing in an otherwise comparable non-work product.⁵²⁶ By producing such expectations, expansion of the derivative work right to encompass any reuse of expression would lead to allocative inefficiency and to the overproduction of works of authorship⁵²⁷ at the expense of more valuable non-work products.

In order to avoid such allocative inefficiency, copyright should limit an author's derivative work right, even where granting the author such a right is otherwise appropriate, to ensure that the author cannot limit the degree of competition in the derivative markets associated with her work.⁵²⁸ To the extent that an exact or near-exact reproduction standard defines the appropriate degree of competition within each derivative work market, copyright should

526. In the market for the derivative uses of a non-work product, a derivative user's real profit is constrained by the ability of others to enter the derivative use market in competition with the first derivative user. As a result, competition in the market for the derivative use will constrain the derivative users' real profit, and hence their reservation prices for the underlying product. In such a reasonably competitive market, most of the social value of the derivative use will take the form of consumer surplus and will not be reflected in the derivative users' reservation prices for the underlying product. Competition in the derivative market will therefore limit the ability of the creator of the non-work product to recover the full value of the derivative use even if she were able to recover each derivative users' full reservation price.

527. In particular, such protection would lead to the overproduction of derivative-capable works of authorship.

528. One other concern is that the producer of a non-work product must still trade-off higher prices against greater sales volume for the two markets, while an author can treat the ordinary and derivative use markets as entirely separate. See Philips, *Price Discrimination* at 19 (cited in note 379) (arguing that price discrimination may enable an individual to separate a single market into two different markets). This ability raises the possibility that the author may be able, by setting two separate prices, to recover a somewhat greater share of the derivative value associated with her work than an individual could recover with respect to the derivative value of a non-work product, even if the derivative right is limited to controlling nontransformative derivative uses that take advantage of a public good aspect uniquely associated with works of authorship. See *id.* (noting a higher income given the ability to separate a single market into two different markets). See also note 504 and accompanying text. We can address this possibility in part by ensuring that authors hold such a derivative right only in circumstances where the derivative use is likely to create a far more substantial difference between the ordinary and derivative use reservation prices for the work than is typical for a non-work product. In such a case, granting the author a separate derivative right would likely generate a price for resources invested in a work of authorship closer to the price an individual would receive for the resources invested in a non-work product than would relegating the author to her price-setting ability. We can also address this possibility by granting authors the right to group into one market purchasers who are likely to have a reasonably consistent reservation price given their planned use, rather than granting rights that allow authors to charge each member of the group their precise reservation price. See Liebowitz, 93 J. Pol. Econ. at 949-56 (cited in note 500) (establishing that magazine publishers can recover an adequate share of the value of their magazines by charging higher subscription fees to libraries and commercial establishments and need not be able to charge such users an additional fee for every copy made of an article); Stanley M. Besen, *Private Copying, Reproduction Costs, and the Supply of Intellectual Property*, 2 Info. Econ. & Pol. 5, 7, 19 (1986).

define the derivative work right in a manner compatible with the degree of competition such standard would otherwise ensure. As a practical matter, copyright can ensure such compatibility by granting authors the right to control only those derivative works that amount to an exact or near-exact reproduction of their original work in another language or medium of distribution (a "nontransformative derivative use").

d. Conclusion

In order to ensure that an individual receives a fair share of the derivative use value associated with a work of authorship that she helps to create, we must ensure that she has the ability to capture a share of the derivative use reservation prices associated with the work roughly comparable to that the creator of a non-work product can capture. We must also ensure that the relationship between derivative use reservation price and derivative use value remains consistent for works and for non-work products. To ensure the first, copyright must protect authors against those derivative uses, and only those derivative uses, which are likely to create a difference in the derivative use and the ordinary use reservation price for a work significantly greater than the difference between such prices for non-work products generally. To ensure the second, copyright must limit the scope of an author's derivative rights to prevent the author from reducing the degree of competition found in the derivative use markets for works below the degree found in the derivative use markets for non-work products more generally.

D. Summary: Allocative Efficiency and Copyright's Scope

The conclusion is simple. Everything new conveys information and therefore has a public good aspect that others can take advantage of, either through imitating to create a competing good or through use of the original to create some further good. Works of authorship may exhibit this public good aspect to a greater degree than non-work products in that they are more easily copied or are more subject to derivative uses, in the absence of special protection, than the typical non-work product. But these are differences in degree, not in kind. Given that our tangible property system allows competitors to obtain substantial copying advantages by imitating new and creative products, and further allows others freely to make derivative use of non-

work products, copyright's proper role is not to prevent others from obtaining any copying advantage from, or to bar all derivative uses of, a work of authorship. Rather, copyright's proper role is to ensure (1) that works of authorship are neither more nor less easily copied than non-work products, and (2) that an individual has an opportunity to recover a share of the derivative use value associated with a work comparable to that available with respect to non-work products.

This role necessarily means that copyright should not attempt to award an author the full value associated with the resulting work. Given that our tangible property system generally enables an individual to recover something approaching only the cost of creating a new non-work product, allocative efficiency and fairness demand a similar rule for authors. If copyright were to do otherwise by providing an author with such extensive rights that she could recover something approaching the full value associated with her work, we would establish a legal system that enabled an individual to recover the value of the resulting good for investments in one sector of the economy, while it enabled an individual to recover only the cost (more or less) of the resulting good in every other sector. Such a disparate standard would be both inefficient and unfair. It would be inefficient because it would inevitably lead to overinvestment in and overproduction of goods in the value-based sector of the economy. It would be unfair because it would enable those who produced goods in the value-based sector of the economy to recover a disproportionate share of society's wealth.

VII. COPYRIGHT AND ALLOCATIVE EFFICIENCY

The first copyright statute, enacted in 1790, provided the author of any "book, map or chart" protection against unauthorized "printing" of her work for a period of fourteen years with a renewal period of fourteen years.⁵²⁹ Since that time, copyright has vastly expanded its reach in terms of the items that fall within its protection, the scope of its protection, and the duration of its protection. Some part of this expansion may have been justified by changing technology and by the introduction of new forms of authorship. But much of it was not.⁵³⁰

529. See Act of May 31, 1790, ch. 15, § 1, 1 Stat. 124.

530. For example, Congress added the public performance right in the mid-nineteenth century, see the acts cited in note 214, yet I am unaware of any change in public performance technology with respect to dramatic or literary works between 1790 and 1856 or 1870, respec-

The incentives-access paradigm has played a critical role in providing a superficially attractive justification for this expansion. By suggesting that more extensive copyright protection is desirable unless and until broader protection threatens a compelling need for access, the paradigm suggests that copyright not only can, but should, continue to expand until it begins either to interfere with the production of future works or to create a risk of undue monopolization. In combination with the natural rights notion that an author is entitled to the value of a work she creates, the paradigm has played a central role in convincing courts and Congress to expand copyright from a system that ensures an author the sole right of multiplying copies of her work, to a system that seeks to award an author the full value associated with her copyrighted work.

Yet, in a world of finite resources, we cannot accept the paradigm's suggestion that the sole cost of broadening copyright is the risk that such protection may limit access to existing or future works. More variety in works of authorship must mean less of something else. Because the production of additional works of authorship is not inherently more valuable than any other potential use of society's resources, justifying copyright requires some determination that society will benefit more from devoting additional resources to creating works of authorship than from the alternative investments to which the resources would otherwise have been devoted.

The relative ease with which competitors can copy the creativity embodied in, and the public good aspect associated with certain derivative uses of, works of authorship provides some basis to believe that the market will underproduce works of authorship in the absence of some degree of legal protection against copying. Because of this, we can reasonably believe that some degree of legal protection against the copying and unlicensed derivative use of works is desirable. Such protection would attract additional resources into the production of copyrighted works. But, to the extent such protection merely addressed one of the differences between works and non-work products that would lead an individual to expect a lower price for resources invested in an otherwise comparable work, the additional works to which such protection would lead are likely to be of greater

tively, that would justify extending protection to authors against such performances, if such protection was unjustified, as the First Congress apparently concluded, in 1790. Similarly, Congress granted the author the exclusive right to translate her literary work in 1870. See *id.* And yet, I am again unaware of any change in translation or publication technology that would justify such a change in the author's rights.

value to society than the alternative investments to which the resources would otherwise have been devoted. If copyright were to go beyond correcting for such differences, however, as it presently does for entertaining works, such protection would be and is undesirable. It would attract additional resources into the production of copyrighted works, and would likely lead to the creation of additional works. Yet, the very same concerns for allocative efficiency that justify some measure of copyright protection in the first place suggest that the additional works produced thereby would have less value to society than the alternative investments to which the resources would otherwise have been devoted.

Determining copyright's optimal scope therefore requires a determination of how much and what sort of protection copyright needs to provide to address those differences between works and non-work products that would, in the absence of legal protection, likely lead the market to underproduce works of authorship. To address those differences, copyright must provide that degree of protection which will lead an individual to expect roughly the same price for her resources whether invested in a work or a non-work product, when the two investments generate roughly the same social value. While limited, the available empirical evidence, together with a common sense analysis of the relevant differences between works and non-work products, suggests that copyright should prohibit only exact or near-exact duplication and certain nontransformative derivative uses of a copyrighted work to ensure such a fair price. Providing such protection should tend to ensure a consonance between price and marginal social value that will lead individuals to devote their talents and resources to the highest-valued use, whether that be the creation of additional works or additional non-work products. Providing copyrighted works more extensive protection would be undesirable—not because it would limit access to the resulting works, though it may do that as well—but because it would draw resources into the production of additional works when those resources would otherwise have been more valuably used elsewhere in our economy.