Authors, Publishers, and Public Goods: Trading Gold for Dross

Wendy J. Gordon

9-1-2002

Recommended Citation
Available at: https://digitalcommons.lmu.edu/lr/vol36/iss1/5
AUTHORS, PUBLISHERS, AND PUBLIC GOODS: TRADING GOLD FOR DROSS

Wendy J. Gordon*

I. INTRODUCTION

Western law has historically granted more limited rights to the owners of intangible works of authorship and invention than it has granted to the owners of tangible objects. This makes functional sense. Exclusion rights over intangibles can impose more costs on the public than can exclusion rights over tangibles. Works of

* Copyright 2002 by Wendy J. Gordon. Thanks to Camila Alarcon, Jean Camp, John Cioffi, Tyler Cowen, Tim Cullen, Robert Denicola, Andrew Dougherty, Scott Keiff, Gary Lawson, Doug Lichtman, Joe Liu, Mike Meurer, Fred Moses, Ray Patterson, Malla Pollack, Richard Posner, Mark Rose, Alicia Ryan, Art Spitzer, David Vaver, Larry Yackle, Fred Yen, and especially Jane Ginsburg and Stan Liebowitz for helpful suggestions and critique. Thanks also to Tamar Frankel and Larry Lessig for the discussions that first prompted me to make some of the points presented here.

Needless to say, not all these friends and colleagues would agree with what I say here. I am solely responsible for the views presented.

1. Inventions and works of authorship are "intangible" in the sense that they can be recreated even if they have no existence except in the mind. Thus, in Ray Bradbury’s classic, FAHRENHEIT 451 (40th anniversary ed. 1993), book-lovers in a book-burning society could survive by memorizing the intangible arrangement of words that made up a given text.

Federal copyright applies only when an intangible is "fixed in any tangible medium of expression" (that is, when the intangible arrangement is written down, filmed, recorded, painted, or otherwise embodied in a physical object). 17 U.S.C. § 102(a) (2000). The fixation requirement provides boundaries, adheres to the constitutional grant that limits Congress’s copyright powers to "Writings," see U.S. CONST. art. I, § 8, cl. 8, and serves evidentiary purposes. See Douglas Lichtman, Copyright as a Rule of Evidence, Duke L.J. (forthcoming, 2003). Nevertheless, copyright law recognizes a continuing distinction between the intangible work of authorship, and the copy or phonorecord in which the work of authorship is embodied. See, e.g., 17 U.S.C. § 202 (ownership of copyright as distinct from ownership of material object.)

2. Tangible items can, at least in theory, be produced via perfect competition, where price can equal marginal cost, marginal cost can equal average cost, and a hefty consumer surplus results. By contrast, intangibles that
authorship and invention are capable of giving benefits inexhaustibly when shared, and in a world filled with transaction costs, exclusion involve a high initial investment might not be produced if price equaled marginal cost, because for a copyist the marginal cost includes only the cost of physically duplicating and distributing an additional embodiment. Exclusivity allows the proprietor to charge a price above marginal cost, and thus potentially cover her average cost including the initial cost of creation. Unfortunately, another result of exclusivity is that fewer copies are made available, and consumer surplus is reduced, as compared with what would have occurred if incentives were not a problem or were provided by other means. See Harold Demsetz, The Private Production of Public Goods, J.L. & Econ., Apr. 1970, at 302 (discussing the economics of private and public goods); William M. Landes & Richard A. Posner, An Economic Analysis of Copyright Law, 18 J. Legal Stud. 325, 328 (1989) (without copyright protection the market price of a book might be bid down to the marginal cost of copying, resulting in the author and publisher failing to recover their costs of creating the work).

Under copyright, many consumers who value the work above its marginal cost, and who are able and willing to pay a price at or above marginal cost, will be unable to purchase copies. See id. Similarly, many artists who value adapting and interpreting a prior work at or above the marginal cost of such adaptation, and who are able and willing to pay a price at or above its marginal cost, will be unable to purchase the licenses that copyright requires.

This reduced ability to consume or adapt is not necessarily a social loss: if the initial intangible could not have been created but for the lure of monopoly pricing, then the potential consumers and adapters are not necessarily worse off in a world with copyright than they would have been in a world lacking both copyright and the works it calls forth. See discussion infra Part IV. But if copyright is longer or broader than it needs to be in order to induce a work, then the deadweight loss is clear. (In addition, even as to works called forth by the incentive of copyright, copyright can cause harm: there are many ways in which intellectual property can make some consumers and second-generation artists worse off than they would have been in a world where neither copyright nor the desired work existed. See the examples collected in Wendy J. Gordon, A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property, 102 YALE L.J. 1533, 1555-59, 1567-70, 1583-1605 (1993) [hereinafter Gordon, A Property Right in Self-Expression].)

3. Compare, for example, the familiar image of a “tragic common”: when every family in a village can graze its cows on the same field, but can individually keep the profits from the resulting milk and meat, they may put so many cows on the common that the cows trample the grass to mud. See Thomas Schelling, Micromotives and Macrobehavior 110-15, 216-17, 231 (1978); Garrett Hardin, The Tragedy of the Commons, SCIENCE, Dec. 13, 1968, at 1244-45. For an intangible like a song, by contrast, even the worst set of off-key singers cannot destroy the song.

Admittedly, even for intangibles there might be some problems of congestion. However, for intangibles, the far worse dangers are those that proprietization poses: in particular, the possibility that too many claimants will exist, inhibiting each other’s ability to use the resource. This has become known as the
rights hamper sharing. The Constitution’s Copyright and Patent Clause is explicit both in recognizing that copyrights and patents must serve the public benefit, and in articulating a primary tool needed to serve that goal: limits on duration.\textsuperscript{4} When an intellectual property term expires, the competition that results reduces the price of copying and adaptation, and expands both the purchase of copies and creative use of the work.\textsuperscript{5} The durational limit lies at the center of \textit{Eldred v. Ashcroft} and the instant Symposium.\textsuperscript{6}

\begin{itemize}
  \item \textbf{4.} “The Congress shall have Power To... promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” U.S. CONST. art. I, § 8, cl. 8. For further explanation, see the immediately following note, and discussion \textit{infra} Part IV.
  \item As mentioned, exclusive rights are an awkward mode of inducing the creative persons to produce intangibles. That is because intangibles are inexhaustible, and exclusivity artificially limits sharing. Even in the abstract, there is no way to both provide an inexhaustible intangible and simultaneously produce a quantity of copies that is equal to what would be available under perfect competition—except (1) by using perfect price discrimination, see Demsetz, \textit{supra} note 2, or (2) under circumstances where incentives are otherwise available from the start, or (3) when, under the protection of a intellectual-property monopoly, the revenues so exceed initial startup costs that, at some point, profit covers the startup cost (even multiplied by risk taken), and the special monopoly can cease.
  \begin{itemize}
    \item The first option, perfect price discrimination, would indeed disseminate a copy, or a permission, to everyone who values the copy or permission at or above marginal cost. However, perfect price discrimination accomplishes this trick by eliminating consumer surplus. \textit{See} Demsetz, \textit{supra} note 2 at 306. So even if the option were available—which in practice it is not—we might doubt its desirability.
    \item The second option rests on the possibility that for some works, copyright is unnecessary. For example, an author’s internal drive to express herself or an inventor’s scientific curiosity may bring some works forth. Similarly, the goal of achieving academic tenure may call some writings and inventions into being. As another example, a patron or governmental agency might subsidize creativity and inventive activity. When such conditions are present, perfect
The plaintiffs in *Eldred* attack Congress's most recent extension of the copyright term—the Sonny Bono Copyright Term Extension Act of 1998 (CTEA). In particular, plaintiffs question Congress's decision to add an extra twenty years to the already long copyright terms possessed by works already in existence when the CTEA was passed. This Article makes three contributions to the debate on the retrospectively applied term extension.

First, the Article clarifies the issue of the CTEA’s retrospective application. As the Article makes clear, to declare the CTEA invalid would not call into question all previous legislation in which Congress extended existing works' copyright terms. Extending copyright in existing works is not in itself constitutionally infirm. The Constitution would seem to be satisfied so long as the retrospective portion of the law provides some real assistance to creativity. The problem is that the CTEA provides none.

By way of contrast, consider copyright law as it existed prior to 1978. The writings of authors were protected by state copyright so competition may produce the optimal number of copies and adaptations without loss of incentive.

(The reader may wonder why I have omitted important factors such as lead-time advantage from this second category. Devices such as lead time, reputation, or a superior distributional system may indeed be sufficient to deter copying and generate high revenues. However, these devices provide incentives by creating temporary monopolies, and with them deadweight loss. They therefore are not examples of perfect competition, but rather of monopolies produced by self-help. They may pose different administrative costs than copyright law does, but they are not free of deadweight loss.)

The third option, ending the monopoly when most of its incentive benefits have been given, is the one the Constitution most explicitly adopts. It limits duration. See U.S. Const. art. I, § 8, cl. 8; see also discussion infra Part IV.


7. See Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, 112 Stat. 2827 (1998) (codified as amended at 17 U.S.C. §§ 108, 203(a)(2), 301(c), 302, 303, 304 (2000)). Before the CTEA, the copyright in ordinary works lasted through the life of the author and beyond it for another fifty years, and the copyright in published "works for hire" lasted for seventy-five years after publication. Under the CTEA, copyright in ordinary works lasts for seventy years after the author's death, and copyright in published "works for hire" have a duration of ninety-five years after publication.

8. The instant Article argues that not all retrospective grants of copyright are invalid. Some are justifiable, for example, as a mode of promise-keeping that increases incentives to creative activity. My contention is that the CTEA is not justifiable in this way. See discussion infra Part III.A. Nor does it seem justifiable in any other way.
long as they were unpublished, and federal law attached only when these pre-existing works were published with proper federal copyright notice. That was a form of retrospective grant: already-existing works received federal copyright. But there was nothing unconstitutional about it. For Congress to promise that federal copyright would attach at the moment when state copyright would be lost gave authors a safeguard that encouraged them to create in the first instance. That federal grant was a form of promise-keeping to authors: create your work and when it is published, federal law will protect it. Incentives for creativity were thereby provided.

Similarly, there would be no constitutional defect in extending the copyright of existing works in circumstances that provide significant encouragement to authorial activity. For example, authors may need assurance that the United States will remain sufficiently consistent with its trading partners that our authors can anticipate receiving recognition of their rights abroad.

However, the CTEA’s retrospective extension does none of these things. It does not preserve authorial expectations. It does not encourage creativity. And neither the retrospective nor

9. The rule that allowed federal copyright to attach at publication assured authors that when they circulated their work to the public—when it would be the most vulnerable to copying by strangers—federal law would prevent the free riding.


Even prior to the 1976 Act, some unpublished works could be federally protected, so that the distinction between unpublished and published works was not always crucial. Nevertheless, in 1978 the line between unpublished and published works became immensely less important than it had been.

10. See discussion infra Part III.A.

11. See discussion infra Part III.A-B. This Article defines “creative” activity as the kind of activity that gives rise to its own copyright. It can include selection, arrangement, the use of aesthetic judgment, and so on. Creativity in copyright is not a high standard, but some threshold test of creativity is inherent in the constitutional term, “Authors,” U.S. CONST. art I, § 8, cl. 8, and in the statutory term, “original work of authorship.” 17 U.S.C. § 102(a). See, e.g., Feist Publ’ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 345-46 (1991). Conversely, this Article defines “uncreative” or “noncreative” activity as effort that would not itself support a copyright.

Someone pursuing a creative activity—for example, someone who restores an old film and adds something creative to it—has legal protection from
prospective term extensions make our law consistent with that of other nations. At most, the retrospective extension may respond to a "public goods" characteristic in certain non-creative activities like film restoration. But not all "public goods" are the proper province of copyright.

A "public good" is a good that can be shared non-rivalrously by many, and from whose use non-payors are not easily physically excluded. Goods with these characteristics are susceptible to free riding, and thus difficult to produce in a normal competitive market. Inventions and works of authorship are "public goods" whose creation is stimulated by the limited private exclusion rights known as patent and copyright. Lighthouses and public defense are "public goods" for which governments usually provide direct support.

Recent copying technology has brought something of a "public goods" character to many products that result from merely physical and non-creative effort. For example, it is now possible for a stranger to copy (and free ride on) film stock that has been restored, or books that have been digitized and posted on a Web site. However, the appearance of a "public good" does not mean that granting or extending federal copyright is the appropriate response, copying without any need for the CTEA retrospective grant: the moment the creative restoration is fixed in tangible media, a new federal copyright arises. It is someone pursuing a "noncreative" activity—for example, a noncreative restorer—who can profit from the CTEA's retrospective grant: only by piggybacking on the original copyright can he obtain legal protection from copying. See discussion infra Part III.D.

12. See Brief of Intellectual Property Law Professors as Amici Curiae Supporting Petitioners, Eldred v. Ashcroft, No. 01-618, at 16-19 (the CTEA does not harmonize our law with Europe's, and in some ways increases discrepancies between United States' and foreign regimes).

13. This is discussed further infra Part II. Intellectual property law can be seen as an effort to cure a form of market failure stemming from the fact that intangibles, once circulated, are hard to fence off from nonpurchasers. Such third parties can copy the intangible, and resell it in competition with the originator. "Public goods" like military defense similarly cannot easily be withheld from non-payers, and they too are inexhaustible over a large range of use. Intangibles are therefore said to have "public goods" characteristics. See 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, 1610-11 (1982) [hereinafter Gordon, Fair Use as Market Failure] and sources cited therein.
any more than the presence of a “public good” makes appropriate the kind of federal subsidy that the nation’s army receives.\textsuperscript{14}

The Article contends that encouraging noncreative activity such as restoration and digital dissemination is not among the purposes that the Framers would have envisaged when they adopted the Copyright Clause.\textsuperscript{15} Undoubtedly, the Framers valued dissemination. However, so long as creative persons and their assignees were protected from copying, in the eighteenth century the physical aspect of publishing could take care of itself.\textsuperscript{16}

This distinction is important. The District of Columbia Circuit Court of Appeals apparently placed significant weight on the possibility that the CTEA would encourage noncreative physical activity including film preservation.\textsuperscript{17}

Many amici and scholars have argued that activities such as film restoration and preservation are more likely to be hurt than helped by the CTEA.\textsuperscript{18} I agree. Nevertheless, the burden of my argument here

\textsuperscript{14} Most important here is the limited nature of federal powers. The Constitution allows Congress to provide for the national defense, but not to provide any and all public goods at federal expense. Some such goods fall outside congressional mandate, and can only be provided by state and local governments. Similarly, the federal copyright power is limited. Congress can provide limited-time rights to authors and inventors, but not to any and all persons who may have produced something with “public goods” characteristics. See discussion infra Part II.

\textsuperscript{15} See discussion infra Part II.

\textsuperscript{16} See discussion infra Part II, notes 35-39, 46-50 and accompanying text.

\textsuperscript{17} The Circuit Court of Appeals wrote:

The Congress found that extending the duration of copyrights on existing works would, among other things, give copyright holders an incentive to preserve older works, particularly motion pictures in need of restoration. If called upon to do so, therefore, we might well hold that the application of the CTEA to subsisting copyrights is “plainly adapted” and “appropriate” to “promot[ing] progress.”


All this talk of film restoration should not obscure the likely real beneficiaries of the CTEA: owners of copyright in works whose investments have long been repaid, whom the CTEA will not encourage to engage in significant new work of restoration, and who will use the CTEA to seize what would otherwise have been consumer surplus for themselves.

\textsuperscript{18} See, e.g., Brief of Hal Roach Studios & Michael Agee as Amici Curiae Supporting Petitioners at 2-3, 14, Eldred v. Ashcroft, No. 01-618 [hereinafter Hal Roach Brief]. The problems here involve, e.g., transaction costs (locating the owner of copyright in a long-ago created work can be difficult if not impossible), strategic behavior, and “anticommons” difficulties (when many
is different. I here suggest that (a) even if the retrospective portion of the CTEA contributes to solving a public goods problem faced by some persons interested in doing noncreative film restoration and dissemination (b) more than it adds to the transaction cost and anti-commons problems faced by other film restorers and disseminators,\(^9\) (c) the CTEA provision nevertheless can be invalidated because the Constitution permits a strong distinction to be made between uncreative physical activity and creative mental activity.\(^{20}\)

Because the instant retrospective term extension has only negative effects on creativity, the distinction between creative mental activity and uncreative physical activity helps clarify the constitutional defects of this particular retrospective term extension. For prospective term extension as well, the distinction may relieve the Court of the need to parse certain empirical claims.

Second, this Article stresses that the CTEA’s negative effects on creativity are not just a matter of authors having to pay more when they want to adapt prior generations’ copyrighted materials. The more pernicious evil is that term extension may prevent “diverse and antagonistic”\(^{21}\) voices from creating exactly the works we most need

---

19. See the immediately preceding note.

20. See discussion infra notes 59-61 and accompanying text. In addition to the distinction between physical and mental labor, well captured in the term “intellectual property,” the United States Supreme Court has also made a sharp distinction between creative and noncreative mental labor. The products of the former are protectable by federal copyright, while the products of the latter are not. See Feist Publ’ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340 (1991).

them to create. The Article borrows from literature on the creative process to argue that copyright extension could erode the creative community's ability to renew itself.\footnote{22}

Third, the Article tries to make vivid some familiar economic arguments. After some point in duration, copyright suppresses more communicative activity than it calls forth\footnote{23}—and an extension such as the CTEA is likely to suppress speech without calling forth any new speech at all.\footnote{24} The Article also reminds the reader that the dry language of economics is talking about more than impact on Gross National Product: when an economist talks of "higher costs and lower production of new creative works,"\footnote{25} he is necessarily addressing not only a loss of dollars and cents, but also a diminution of human abilities to process their experience through art.

This Article does not argue for a particular level of scrutiny. Rather, it assumes that the Court will find the First Amendment applicable, and that some level of significant scrutiny will be applied. The goal of this Article is simply to offer a set of observations that may be useful to the Court at whatever analytic level it chooses to employ.

This Introduction ends with a quotation from Samuel Johnson, who succinctly sounds the basic themes:

\footnote{(1972) (plurality opinion), (quoting from Associated Press v. United States, 326 U.S. 1, 20 (1945)).
22. See discussion infra Part III.C.
23. This raises an argument analogous to that of Ian Ayres & Paul Klemperer, Limiting Patentees' Market Power Without Reducing Innovation Incentives: The Perverse Benefits Of Uncertainty And Non-Injunctive Remedies, 97 MICH. L. REV. 985 (1999). They write:
Legal scholars have failed to appreciate that unconstrained monopoly pricing is not a cost-justified means of rewarding patentees. The last bit of monopoly pricing produces large amounts of dead-weight loss for a relatively small amount of patentee profit. If society wants to use patent profits to induce innovation, it should choose the method of producing a particular level of profit that produces the least cost to society. But allowing patentees to raise price all the way to the monopoly level is a little like giving them a license to steal car radios—it produces a social cost (to car owners) far greater than the private benefit.
Id. at 987 (emphasis added).
24. See discussion infra Parts III.C–D., IV, and Conclusion.
25. Brief of George A. Akerlof et al. as Amici Curiae in support of Petitioners at 12, Eldred v. Ashcroft, No. 01-618 [hereinafter Economists' Brief].}
[A] certain degree of reputation is acquired merely by approving the works of genius, and testifying a regard to the memory of authors... and therefore to ensure a participation of fame with a celebrated poet, many, who would, perhaps, have contributed to starve him when alive, have heaped expensive pageants upon his grave.26

Johnson’s purpose in penning these words was ostensibly not to condemn those who would “starve” authors (although Johnson undoubtedly did condemn them),27 but rather to call attention to a theatrical benefit for John Milton’s granddaughter.28 The quoted language contains two features well worth noting in the context of Eldred.

First, the passage suggests that posthumous honors may be too easy. The “illustrious dead”29 would have benefited more from support while they were alive and struggling. In our own era, federal and local governments have many options for providing aid to authors that would be more effective than copyright term extensions—but intellectual property legislation has almost a life of its own.30

---


27. See id. Johnson initially became a writer by necessity, not by choice, and in early days often found himself in poverty despite writing as much as he could.

28. Johnson’s primary purpose in writing this passage was to encourage attendance at the benefit performance at Drury Lane Theater for which he had written a prologue. The benefit aimed to provide money for the apparently impoverished and elderly granddaughter of poet John Milton. See id. Incidentally, retrospective term extension would not have helped the granddaughter: Milton had already sold his copyright, and English law apparently had no provision that allowed for a copyright’s recapture by heirs. See Macaulay Speech of 1841, supra note 4, at 203-04.

   That Johnson, in the process of encouraging attendance, poked a bit of nasty fun at those who sought to polish their own reputations by attending is (I think) a characteristic Johnsonian touch.

29. See id.

Second, please note the source from which the passage from Johnson was obtained: a free Web site.\textsuperscript{31} Anyone who wants to check the full context of the words quoted can easily do so. The easy access to Johnson’s words arises because of—not despite—their public domain status. Admittedly, public domain status does not inevitably encourage dissemination. Just as some works will be disseminated more easily if they are in the public domain,\textsuperscript{32} it is conceivable that other works will be disseminated more easily if the publisher or restorer can purchase an exclusive license.\textsuperscript{33} My estimate is that an overly broad tool such as copyright extension will result in more negative effects than positive effects on noncreative dissemination activity.\textsuperscript{34} However, even if a term extension were to generate more noncreative dissemination than would a shorter term, that increase would be outweighed by loss to creativity.

\textsuperscript{31} http://newark.rutgers.edu/~jlynch/Texts/BLJ/blj50.html.
\textsuperscript{32} Boswell’s Life of Johnson is an example. \textit{See supra} note 26.
\textsuperscript{33} For examples of the different situations that can be faced by persons desiring to disseminate old works, compare, e.g., Brief for the Respondent at 34, \textit{Eldred} v. Ashcroft, No. 01-618 [hereinafter Brief for Respondent], with, e.g., Brief for Petitioners at 18-23, \textit{Eldred} v. Ashcroft, No. 01-618, and Hal Roach Brief, \textit{supra} note 18, at 1-3.
\textsuperscript{34} Where the copyright owner cannot be located, or where many copyright owners’ consent would be necessary, the high transaction costs may prevent dissemination. In such a case, public domain status eliminates transaction costs and makes dissemination more likely. Since digitization is often an inexpensive proposition, eliminating transaction costs and license fees will often be sufficient to allow persons such as plaintiffs to anticipate a net benefit from engaging in dissemination. In other situations, it may be easy to find and obtain a license from the copyright holder, but expensive to restore or digitize the work. In such a case, where transaction costs are low but production costs are high, dissemination may happen anyway, since there are many ways to take advantage of one’s effort without copyright, such as lead time. \textit{See}, e.g., Stephen Breyer, \textit{The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs}, 84 \textit{Harv. L. Rev.} 281, 299 (1970). Nevertheless, it is conceivable that in some subgroup of the latter class of cases, dissemination would be furthered by having a long copyright term, so that the restorer or digitizer can purchase an exclusive license. To determine what kinds of situations are more likely to occur, and what kinds of works and modes of dissemination are differentially affected, is an empirical question. More importantly, given the very different nature of the problems faced by the two classes of cases, the broad brush of copyright extension—which gives roughly a century of exclusivity to all works—is a particularly inappropriate tool.
II. PUBLIC GOODS: THE FRAMERS PERCEIVED AUTHORIAL ACTIVITY AS DIFFERENT

At the time of the Framers, publishers and restorers of old works were engaged in an enterprise whose costs followed the usual patterns of tangible manufacturing. Each company had to bear its own manufacturing costs. If a Pennsylvania newspaper set the day’s stories in type, a New York newspaper could not copy without incurring its own costs to set the same stories in its own type. The typesetting was not a “public good.” There was no way for the second newspaper to free ride on the physical labor of the first typesetter to print the document.

Admittedly, some non-authorial activity in the eighteenth century did produce things that were both related to the growth of knowledge and susceptible to copying. The primary example is the non-creative directory. However, the existence of such directories is hardly authority for the proposition that the Framers may have wanted to use the Copyright Clause to assist all culturally relevant “public goods.” To the contrary, the Supreme Court has held that non-creative directories, despite their “public goods” character, lie outside the borders of the Clause.

The primary economic goal of copyright is to provide incentives that would otherwise be lacking. For physical goods, ordinary, non-monopolistic competition provides adequate incentives for production. Ordinary competition also provides a low price to consumers. For the physical aspects of typesetting, then, a monopoly would have raised costs without providing any societal benefit. Encouraging the physical aspects of typesetting was in no way part of the Framers’ goals. It is only when publishers stood in authors’

35. See Edward Samuels, The Illustrated Story of Copyright 17 (2000) (describing how early printing presses were laborious to use and showing the requirement of typesetting).
36. Id.
38. See Demsetz, supra note 2 and accompanying text. Some commentators argue that intellectual property also serves to centralize control in a useful way. See Edmund W. Kitch, Nature and Function of the Patent System, 20 J.L. & Econ. 265 (1977). However, I do not see evidence of this concern in the Framers’ debates. Moreover, the centralization argument has little force when applied to copyright, a field whose merit is diversity rather than centralization. See Economists’ Brief, supra note 25 at 12-15.
shoes (as licensees and assignees of authors, or as authors themselves when they made creative compilations) that publishers bore costs for something that could be copied. Only then—having obligations to pay independent authors or creative employees—would publishers have an investment that might raise their costs higher than a copier's, and only then did they have a conceivable need for copyright protection.

In the Statute of Anne, England abandoned the pre-copyright practice of giving monopolies to publishers as publishers, and our Constitution and statutes followed suit. In giving copyright only to "authors," the implicit plan was this: To encourage the writers by a monopoly and to encourage the publishers by the ordinary economic system operating through the legal regime of tangible property and contract. Once copyright helped the writers, at least in the eighteenth century, the disseminators could take care of themselves.

This is in fact how the legal system operated. When copyright was given to authors rather than publishers in England’s Statute of Anne and in our own country’s initial copyright statute, it came with a warning that in future, noncreative disseminators could have a


40. Publishers can still hold copyrights, of course, but they have to do so as authors (if they themselves do creative work), or as assignees or employers of authors. My concern is with publishers who seek to own copyright on account of noncreative activity. On publishers’ role in the early history of copyright, see PAUL GOLDSTEIN, COPYRIGHT’S HIGHWAY: THE LAW AND LORE OF COPYRIGHT FROM GUTENBERG TO THE CELESTIAL JUKEBOX 37-43 (1994); see also BENJAMIN KAPLAN, AN UNHURRIED VIEW OF COPYRIGHT (1967). Admittedly, publishing entities did much of the lobbying that led to copyright, see GOLDSTEIN, supra, and continue to influence legislation. Jessica D. Litman, Copyright, Compromise, and Legislative History, 72 CORNELL L. REV. 857, 870-82 (1987); Jessica Litman, Revising Copyright Law for the Information Age, 75 OR. L. REV. 19 (1996). But the identity of the lobbyists who push for legislation is hardly determinative of how the legislation is to be interpreted. In all legislation, much lobbying is done by people who stand to gain monetarily. Nevertheless, they seek to persuade by pointing to the benefit the public will reap, and it is in terms of public rather than private benefit that the legislation is worded and interpreted.

41. See An Act for the Encouragement of Learning, 1710, 8 Ann., c. 21 (Eng.) ("An Act for the Encouragement of Learning by vesting the Copies of printed Books in the Authors or Purchasers of such Copies during the Times therein mentioned.").

42. Act of May 31, 1790, ch. 15, § 1, 1 Stat. 124 (repealed 1802).
right to exclude only by purchasing or licensing an author's copyright.\textsuperscript{43} It was that payment to the author—the investment in creativity—that copyright law sheltered. The copyright law shielded the publisher who had paid something to the author, from competition by the publisher who had paid nothing to the author.\textsuperscript{44} It did not aim to protect one publisher's physical investment from competition by another publisher who made a similar physical investment of his own.\textsuperscript{45}

In fact, the Framers were quite worried that a monopoly unrelated to creativity would result from the Copyright and Patent Clause. They deliberately drafted the Clause to avoid this and related dangers.\textsuperscript{46}

While a monopoly over physical processes was unnecessary in the Framers’ day, changing technology has now made it possible for copiers to take a free ride on some products of physical effort. The newspaper that puts words in print can be photocopied. An old movie broadcast on television can be duplicated at less cost than the film stock may have taken to restore. Similarly, someone who spends great sums compiling data that he sells in CD-ROM form can find his data copied and resold.\textsuperscript{47} As a result, modern publishers

\textsuperscript{43. See id.}
\textsuperscript{44. See id.}
\textsuperscript{45. See id.} The distinction I am drawing is between noncreative physical activity and creative mental activity, not between publishers and authors per se. Admittedly, the line can blur between mental and physical activity, because virtually all physical activity by humans is organized by some kind of mental conception or intent. Regardless of the existence of activities on the boundary between the two, it is clear that the Framers were concerned with activity safely on the “mental” end of the continuum—authoring and inventing.

A word should also be addressed to a class of activities that rest on the edge between physical and mental, namely, noncreative mental activities such as tabulating and compiling lists. Such activities involve relatively little muscle, yet the worker spends more time moving fingers on pen or keyboard than she does thinking. These are known as “sweat of the brow” activities, a metaphor that inadvertently captures both the physical (“sweat”) and mental (“brow”). As noted, the Supreme Court in \textit{Feist} decided that such products are not protectable under the Constitution’s Copyright Clause. See \textit{Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.}, 499 U.S. 340 (1991).

\textsuperscript{46. See SunTrust Bank v. Houghton Mifflin Co., 268 F.3d 1257, 1260 (11th Cir. 2001) (describing how the Framers were guided by the Statute of Anne, which was designed to destroy the booksellers’ monopoly of the booktrade).}

\textsuperscript{47. The example is drawn from \textit{Pro-CD v Zeidenberg}, 86 F.3d 1447 (7th Cir. 1996) (upholding shrinkwrap license prohibiting the copying of noncopyrightable database). Unfortunately, that case dangerously and improperly
might claim that they, like authors, face a situation where their investments are open to dangerous free riding because their products are "public goods": inexhaustible, and sometimes hard to fence off from users who have not paid for the privilege of use. Modern publishers thus might argue that without some form of copyright protection, they will not optimally invest in collecting, typesetting, or film restoration, which may be easily and cheaply duplicated. Such an argument was apparently made on behalf of the CTEA.

The argument has many theoretical and empirical flaws from an economic perspective. Before returning to the historical question of the Framers' perspective, let me discuss some of those economic arguments.

The producer of a "public good" has the best claim to need legal protection from copying when certain conditions appear. These conditions—what one might call prisoner's dilemma

suggests that mass-market shrinkwrap and click-through contracts should be enforceable to restrain copying. Such contracts—including their ability to foster price discrimination—are the functional equivalents to copyright. See Wendy J. Gordon, Intellectual Property as Price Discrimination: Implications for Contract, 73 CHI.-KENT L. REV. 1367 (1998). Congress, rather than private dictate, should adjust the applicable policies, and mass market contracts restraining the copying of non-creative literary works should be pre-empted. Id.


For a further definition of public goods, see supra, note 13 and accompanying text.

In the early stages of writing on the economics of copyright, it was easy to overstate the dangers of underproduction supposedly faced by public goods. For an example of my own possible over-enthusiasm, see Gordon, Fair Use as Market Failure supra note 13 at 1610-11; see also Demsetz, supra note 2, at 306 (suggesting that when nonpurchasers cannot be excluded from using a public good at a reasonable cost, a system of private production "does not seem to be practical").

See supra note 17 (quoting from Eldred v. Reno, 239 F.3d 372, 379 (D.C. Cir. 2001)).
conditions—include the simultaneous occurrence of high initial investment, lack of lead-time advantage, cheap and quick copying, absence of nonmonetary rewards, and perfect substitutability between the original product and the copy. When one or more of the conditions are absent, creative or industrious effort can earn significant revenues even without a legal prohibition on copying. For all of these to appear simultaneously—or even for a significant number of

51. A “prisoner’s dilemma” is a situation where parties seeking their own self-interest will probably be unable to achieve the desired benefits for themselves without some mode of coordination. A mode of coordination, such as contract, morality, or copyright law, changes the payoffs to non-cooperative behavior and generates higher results for the group. See Gordon, Asymmetric Market Failure, supra note 48, at 859-68.

52. Only if seven core conditions are present would a prisoner’s dilemma exist whose payoff structure actively discourages independent creation. These conditions are:

(1) The cost of independent creation or production is very high.

(2) A second party is able to copy the creation/production from its originator at a cost lower than the cost of independent creation, and no other restraint (e.g., a sense of fair play) adds significantly to the copier’s reasons for refraining from making copies.

(3) These copies are perfect substitutes for the originator’s product, being identical to the originator’s product in regard to all characteristics that affect consumer preferences. Such characteristics include, inter alia: quality, reliability, number and quality of distribution networks, authenticity and associational value, and support services provided in connection with the product.

(4) Consumers perceive the two products to be perfect substitutes. (Arguably, if this condition is met, it does not matter if the copies indeed are perfect substitutes.) The originator cannot rely on lead-time advantage, willingness to provide support services, or brand loyalty to distinguish his goods from the imitators’ goods.

(5) The difference between the cost of copying and the cost of independent creation is high enough that the price the copyist charges will be significantly less than the price the originator would have to charge in order to recoup his costs of independent creation.

(6) In the absence of an opportunity to recoup the costs of independent creation, no one will invest in creative activity. That is, nonmonetary remuneration (such as prestige or the desire for artistic satisfaction) plays no role in inducing the originator’s creation or production.

(7) The independent creator or producer can recoup her costs only by means of selling or licensing copies, and in doing so, she has no effective recourse to price discrimination.

The above list closely follows that in Gordon & Bone, supra note 48, at 199-200, where a fuller discussion of prisoner’s dilemma can be found.
them to appear at the same time—is fairly rare. To grant a monopoly where a monopoly is unnecessary simply raises prices, and reduces access. By definition, free riding is beneficial; it is only in special circumstances that it can impose costs as well.

Aside from the constitutional text, then, there can be significant reasons to avoid giving publishers legal protection against free riding unless the protection is sufficiently narrowly drawn. Public goods are everywhere, and the inexhaustibility they promise is something to be savored. The inexhaustible benefits from public goods should be made scarce if that is the only way incentives can be provided—and often there exists a wealth of other institutional alternatives for providing incentives. The very fact that public goods are everywhere is testament to the fact that explicit legal protection is not always required for them to come into being.

To this should be added the way that the CTEA will aggravate many transaction cost and anticommons problems. This has been well addressed by others.

Although the overall effect that the CTEA would have on even noncreative activity is highly likely to be negative, from a legal
perspective the most interesting question arises by assuming the opposite for the sake of argument: that the CTEA might have a net beneficial effect on noncreative restoration and publication. So let us assume \textit{arguendo} that a significant number of restorers and publishers would need the CTEA’s extra twenty years of protection against copying if they are to have incentive to engage in an optimal amount of noncreative activity.\footnote{57} Let us also assume \textit{arguendo} that the CTEA could improve the incentives for this noncreative activity more than it would impair the noncreative activities of other potential restorers and publishers. Finally, let us also assume \textit{arguendo} that American institutions could tolerate giving a property-right form of monopoly to resolve this assumed paucity of incentives.\footnote{58} If this were the state of the world, could Congress constitutionally use copyright to provide noncreative laborers protection against those who would free ride on their physical effort?

This is similar to the very question faced in \textit{Feist}, and the Court answered “No.”\footnote{59} An entity that had collected a series of names and telephone numbers sought to use copyright to prevent the data from being copied.\footnote{60} The Supreme Court struck down the plaintiff’s copyright on the ground that no creative selection or arrangement had gone into the compilation—and that both the statute and the Constitution required such creativity as a precondition for protection.\footnote{61}

Conceivably, the Court in deciding \textit{Eldred} could turn away from the direction indicated by \textit{Feist} and could decide that the Copyright

\footnotesize

\footnote{57. That means we are assuming \textit{arguendo} that many persons in their role as noncreative disseminators and restorers own copyrights or could obtain licenses on copyrighted material, and that extending the term on those copyrights will enable the disseminators and restorers to avoid a prisoner’s dilemma.}

\footnote{58. Copyright gives a set of entitlements that is much broader than the protections against free riding that our common-law traditions would otherwise justify. \textit{See} Gordon, \textit{On Owning Information}, \textit{supra} note 48, at 159-197 (arguing, \textit{inter alia}, that nothing broader than a fact-sensitive unfair competition tort, and not a property right, should be allowed for noncreative works).}


\footnote{60. \textit{See id.} at 341.}

\footnote{61. \textit{See id.} at 346. In \textit{Feist} the noncreative laborer sought a copyright for its own work product, \textit{see id.} at 373, while under the CTEA, Congress protects the noncreative laborer by means of extending the copyright in someone else’s creative product. In \textit{Eldred}, the proponents of the CTEA have made much of the fact that \textit{Feist} is distinguishable. \textit{See} Brief for the Respondent, \textit{supra} note 33, at 21-23. The distinction is there, but it is more formal than substantive.}
Clause is a warrant for protecting any industry that both furthers the "Progress of Science" and faces a public goods and prisoner's dilemma problem. Such an odd and dangerous result is conceivable because the Framers, not having faced the issue of physical effort that was susceptible to free riding, left no black letter dictate one way or the other. My point, therefore, is not that the Constitution explicitly prohibits Congress from "promot[ing] Progress" by fostering monopolies on physical processes. Rather, I suggest that for the Court to find that Congress could promote "Progress" in this way, the Court would be taking a step away from its previous understandings and from the Framers' own conceptions of the Clause.

Further, should the Court take such a step, it would be allowing Congress to manipulate copyright and patent for the purpose of aiding any industry that has a plausible claim to promoting Progress. Few industries cannot make such a claim. A host of new special interests would enter the lobbying fray as against the interests of the creative and of the public.

Where does this leave us? If the Court wishes to hold steady in the direction chosen by Feist, and avoid opening the copyright and patent laws to further distortion, the Court should either hold that weight should be placed only on the statute's effects on creativity, or it should hold that under the Copyright Clause the legislation's effects on creativity should be weighed more strongly than the legislation's effects on noncreative dissemination—much as a given ingot of gold far outweighs a silver ingot of equal volume.

In my view, the CTEA does not even provide a significant amount of "silver" (noncreative activity), primarily because term extension makes it harder to disseminate many works. Therefore, what we are really trading for the gold of creativity is not silver but merely dross.

63. See Feist, 499 U.S. at 340.
64. By labeling creativity "gold" and the noncreative dissemination "silver," I do not mean to be claiming that new works are more valuable than old. I am not even making a factual claim as to whether creating new works or restoring the old contributes more to "Progress." Rather, I am suggesting that given the purposes of copyright, when assessing a change in the copyright regime one must give more weight to incentives to be creative than to incentives to preserve, restore, and mechanically disseminate works.
III. Benefits and Costs to the Creative

This Section has several parts. In the first, I will show the negligible positive effect that the retrospective extension is likely to have on creative persons. In the second, I will make vivid some of the nonmonetary burdens that any term extension will impose on the creative. In the third, I will show that the CTEA’s retrospective extension only provides meaningful incentives to the noncreative. If this is so, the nation in adhering to the CTEA is at best giving up new authorship (gold) in order to obtain increased noncreative labor (silver). In adopting the CTEA, Congress intentionally or unintentionally seeks increased dissemination at the cost of a decrease in creativity.

A. Retrospective Term Extension: Positive Effect on Creative Persons?

The defenders of the CTEA have made an argument that extending the copyright term in already-existing works gives incentives to authors to generate new works. The argument depends on the following set of propositions, all of which (except the first) are far-fetched, yet all of which must be true before the term extension of already-existing copyrights could have any impact on the creation of new works. The argument fails. Here are its necessary components:

1. A significant number of authors on a significant number of occasions are encouraged to create new works by the prospect of their heirs receiving royalties, or by the prospect of receiving a current payment that reflects a more than trivially long term of copyright.

2. A significant number of authors will be significantly less encouraged by a term of copyright that extends fifty years after

---

65. See Brief for Respondent, supra note 33, at 31.
66. See id. at 26 n.17. The arguments here can easily be restated in terms of work-for-hire. For works-for-hire, the copyright owner may be a corporation who has no heirs of the body, but if an extended term is likely to be valuable to someone, that value—discounted to the present—could raise the current value of the hiring party's copyright. See the numeric example, infra at Part III.B. The numeric example was crafted to make the term that the non-employee author would expect to receive match the work-for-hire term.
their death than they would be by a copyright that extends seventy years after their death.\textsuperscript{67}

(3) The rewards promised by the life-plus-50-year term, which Congress made effective in 1978, had by the time of the CTEA been eroded by technological or other changes.\textsuperscript{68} Authors today perceive the erosion and believe that such reduction of profit will continue.\textsuperscript{69}

(4) Authors see the CTEA’s grant of an extra twenty years to already-existing copyrights as a compensatory response to the purported decrease in profit stream since 1978.\textsuperscript{70}

(5) The discouragement that a current author would otherwise feel in facing the prospect of a reduction in profit because of technological change could be significantly reduced by a promise of further extending the copyright term.\textsuperscript{71}

(6) In giving an extra twenty years post mortem to works already created, the CTEA will assure current authors that they can put energy into creating new works without fear that the “value” of the term currently granted will be eroded.\textsuperscript{72} This is because:

(7) Authors will interpret the CTEA’s retrospective term extension as a sort of guarantee that Congress will continue to extend copyright retrospectively, to terms beyond life-plus-70, if technology or other factors make copyrights less profitable to exploit.\textsuperscript{73}

(8) Authors will respond to this perceived guarantee by creating more and better works today than they would have created without the perceived guarantee.\textsuperscript{74}

In sum, this set of propositions argues that authors currently exist who would fear to create because they worry that something could happen in, say, year 2030 to make their works less profitable. It

\textsuperscript{67} See Brief for Respondent, supra note 33, at 26-27 & n. 17.
\textsuperscript{68} See id. at 26-27.
\textsuperscript{69} See id. at 25-27.
\textsuperscript{70} See id. at 21.
\textsuperscript{71} See id. at 26-27.
\textsuperscript{72} See id. at 28-32.
\textsuperscript{73} See id. at 22-23.
\textsuperscript{74} See id. at 30-34.
further assumes the CTEA retrospective term extension relieves such authors of fear because it assures the authors that Congress will respond to market changes in, say, year 2030, by retrospectively extending the life-plus-seventy term again, perhaps to life-plus-ninety. Then it argues that the promise of such a further extension suffices to bring otherwise fearful artists back to the drawing-board and writers back to their word processors.

How do the eight propositions comport with the facts? Viewed objectively, only proposition (1) fares well. Even if the facts are viewed most favorably to the position of the CTEA proponents, crucial steps in the argument still fail to achieve plausibility.

Argument (1) is probably true for a significant number of authors. As for argument (2), authors' responsiveness to copyright incentives has its limits. Not only do authors have many sources of incentives other than copyright, 75 but in addition, the bulk of a work's return—if the work is successful—ordinarily comes in the first few years after publication, with a sharp decrease in receipts over time. Copyright in the far-distant future usually will involve a minor or nil amount of money, even if not discounted to present value. Moreover, even if significant revenue were expected to come in the far distant future, its present value is low. 76 Argument (2) is thus not well founded.

Regarding argument (3), it is far from clear that erosion has occurred. Although private copying has increased via the internet, so have opportunities to profit through new media, and so has legal protection. Copyright has steadily grown stronger, both internationally and in the United States. 77 For example, through the Digital Millennium Copyright Act, Congress has given copyright owners immense

75. The classic work on this topic is by Justice Stephen Breyer. See Breyer, The Uneasy Case for Copyright, supra note 34; see also Stephen Breyer, Copyright: A Rejoinder, 20 UCLA L. REV. 75 (1972). See also, e.g., Palmer, supra note 53, and Frank, supra note 53. One of the modes of obtaining revenue without copyright is to price discriminate. Libraries who have been largely freed of the threat of copyright infringement when they make photocopies, pay a sub silentio licensing fee because the journals charge the libraries subscription rates that are much higher than those charged to individuals. S. J. Liebowitz, Copyright Law, Photocopying, and Price Discrimination, 8 RES. L. & ECON. 181 (1986). The article is available at http://wwwpub.utdallas.edu/~liebowit/knowledge_goods/rle/rle1986.html.
76. On discounting to present value, see infra Part III.B.
77. See Vaver, supra note 30, at 624-27.
powers in the form of governmental rights to back up the owners' technologies of self-help. Nevertheless, since some copyright owners may well perceive erosion (whether or not it is present), we should continue through the list.

Regarding argument (4), might some authors perceive the CTEA as a response to private copying? It is possible. Might these authors think they can rely on the CTEA as a guarantee of future Congressional response (argument 7)? This is highly doubtful. No one expects that a current Congress can bind a future one, particularly when no explicit promises are made. Nevertheless, let us resolve argument (7) arguendo in favor of CTEA proponents, and assume that some authors interpret the CTEA's retrospective grant as such a guarantee.

That brings us to the crux: Could such a CTEA "guarantee" give something sufficiently substantial today that potential creators and investors who feel threatened will instead feel safe? Here we are squarely in giggle territory. If an immensely cautious potential author feared a reduction in profit in 2030, it is hard to see that extending the term of something already unprofitable would be a reassuring response. More importantly, if an extension from life-plus-fifty to life-plus-seventy has remarkably little present value, a contingent promise of an extension from life-plus-seventy to life-plus-ninety would have even less.

As will be demonstrated below, it is hard to imagine anyone being affected by the prospect of an income stream being increased or decreased fifty-one years after he or she has died. In the numerical example that follows, I try to make this more concrete. It is harder still to imagine that this ultra-sensitive person who receives a life-plus-seventy-year copyright under the CTEA will be encouraged to work harder because she thinks that her new works may in the future receive a term that is longer yet.


79. See the discussion in the numerical example, infra at Part III.B., for discussion of discounting.

80. In Lord Macaulay's words:
B. Numerical Example: Potential Raw Benefit of Term Extension

To illustrate the small present value of extending life-plus-fifty to life-plus-seventy, let us give the CTEA proponents the benefit of the factual doubt, and do a calculation that is fairly generous to their assumptions. Let us assume, contrary to likely fact, that an authors’ works will bring a constant, rather than decreasing, amount of income every year it is on the market, and examine what the present value of that income stream might be.

What follows is an examination of how an author as a reasonable economic person would perceive such a stream of income potentially available in the future. The process involves mathematically discounting the future benefits to present value.⁸¹ What the

---

We all know how faintly we are affected by the prospect of very distant advantages, even when they are advantages which we may reasonably hope that we shall ourselves enjoy. But an advantage that is to be enjoyed more than half a century after we are dead, by somebody, we know not by whom, perhaps by somebody unborn, by somebody utterly unconnected with us, is really no motive at all to action. Macaulay Speech of 1841, supra note 4, at 200.

⁸¹ The expectation that authors will discount to present value is a common-sense part of the explanation of why copyright terms should be limited rather than perpetual. Interestingly, however, a long copyright term can produce a net loss for society even if authors are indifferent as between immediate and future rewards. Economist Stan Liebowitz has developed a fascinating illustration to this effect. He shows that under some assumptions, copyright could produce a net social loss even if authors did not respond less favorably to distant rewards than to immediate ones. E-mail from Stan Liebowitz, Professor of Managerial Economics, University of Texas at Dallas (Autumn 2002) (on file with author). Incidentally, although I make use of Professor Liebowitz’s illustration with his permission, I subject it to uses of my own, and responsibility for any errors rest with me.

In the illustration, all works are assumed to last for ten years. Without copyright, the value of a work to society is assumed to be $100 per year. Under copyright, since the price is higher and fewer copies are disseminated, the value of the work to society is assumed to be $60 per year. Assume that without copyright 100 copies will be produced. The copyright term can be from zero to ten years long, and for every year of copyright that the law promises, authors are assumed to respond by bringing forth six additional works.

Although the assumptions are quite constraining, most of us will nevertheless be surprised by the result: less value is generated under a nine or ten year copyright term than under no copyright at all. On the following graphs, the duration of the copyright term is measured (in years) on the horizontal axis. The vertical axis measures the monetary value of the works created under each designated copyright term. The first chart measures the gross output of works: the value of works under no copyright, and the value of works under copyright
terms of from one to ten years. The second chart shows how these various copyrights compare with a regime of no copyright at all. In a sense, the second chart measures the monetary value, under the assumed facts, of the various copyright systems.

![Monetary Value of Works Produced Under Differing Durations](image)

![Monetary Value of Copyright System](image)

The following examples will illustrate the method of calculation. Note that discounting plays no role, nor are administrative costs of the copyright system included.

**Under no copyright:** With zero copyright, 100 works are produced which are worth $100 yearly and last ten years. Their value over the ten years (without discounting) is thus $100,000.

**Under a regime giving one year of copyright protection:** With one year of copyright, six more works are produced, totaling 106 works. The first year of these works' existence is under copyright, so each generates $60 in value ($6,360 for all). The next nine years they are in the public domain, so, without discounting, over that period each of the 106 generate $900 ($95,400 for all). Summing the value during the ten years that the works last, the 106 works have
public reaps from copyright is the value of any new work induced into existence by the author’s perception of present value, minus the costs attributable to copyright. The current section addresses only the positive effects that could result from a term extension. It argues they are minor, if any. The net value of this particular copyright law—how any positive effects weigh against the extension’s negative effects—is the subject of later sections.

Let us imagine an author who anticipates that a writing of hers would bring her or her heirs $1,000 every year from the moment of creation until copyright ends. Assume the author is sixty in 2002, and that actuarial tables tell her she can expect to live another twenty-five years, to 2027. If in 2002 she were deciding whether to a value of $101,760. (This appears on the chart above). This is an increase of $1,760 over a system of no copyright. (This figure appears on the chart below.)

Under a regime giving nine years of copyright protection: With nine years of copyright protection promised, authors produce (9 x 6) or fifty-four more works than they would without copyright. Under a nine-year term, therefore, 154 works would be in existence. For each of the nine years under copyright, they generate $60 each, for a total of $83,160. In their last year, the 154 generate $100 of value each, or $15,400 for all. The total value of the works produced under a regime of nine years of copyright protection is $98,560. The copyright system now has produced a loss as compared with a system of no copyright.

With a ten-year term, the loss grows larger. Under a ten-year term, 160 works would be in existence and would yield a total value of $96,000—a loss of $4,000 in comparison with the $100,000 generated with no copyright at all.

What drives the social loss in the illustration is copyright’s unitary term. CTEA proponents are not alone in assuming that extending a copyright term will sometimes bring forth more works. Such an assumption necessarily implies that different works or classes of works (novels versus movies, perhaps) respond to different incentives. A unitary term by definition is unable to respond to different works’ needs with varying periods of protection. In a world where different works respond to different terms, a unitary term will therefore generate deadweight loss.

82. The example in text is premised on a sixty-year-old author. A younger author would anticipate having a longer term. This “life plus” structure of the law is potentially counterproductive: as Macaulay argued, a term hinging on the life of the author gives the longest period of legal protection to “juvenile” works, and the shortest period to “mature” works. Yet works “written in maturity” tend to be more valuable. If it is thought necessary to give more incentive, terms should be defined by a certain term, rather than by a “life plus” formula. See Macaulay Thomas Speech Before the House of Commons (Apr. 6, 1842), in 8 THE WORKS OF LORD MACAULAY 210-16 (Lady Trevelyan ed., 1906). Also available at the website identified in footnote 4.
write a new book, under the pre-CTEA copyright law she would expect her copyright to expire in 2077. Assuming a five percent rate of interest and no inflation, and assuming that she values income to her heirs as highly as she values income to herself (unlikely, given that she may never meet some of them), the present value of this seventy-five years of receiving $1000 yearly would be $19,490. She would, therefore, be willing to invest at least $19,490 in time, money, and opportunity cost, in creating the work. (I say she would invest "at least" that amount, because there likely are intrinsic satisfactions to the work, as well as nonmonetary advantages such as reputation that will increase the present value of the work to her above its potential for earning income.)

Of that $19,490 in present value, $18,260 represents the present value of the first fifty years of income, and a mere $1,230 represents the present value attributable to the following twenty-five years of income. (The sharp drop is easily explained: the more far away a piece of income is, the less its prospect is worth now.) In sum, under the pre-CTEA copyright law of "life plus fifty," the sixty-year-old author's copyright will probably expire in 2077, and the present value attributable to her doing the new book is $19,490.

If the CTEA is upheld, another twenty years of income will go to her heirs. What is the present value of the additional income stream, assuming that $1,000 continued to be earned every year between 2077 and 2097? It is $320, raising the 2002 present value from $19,490 to $19,810. That $320 is a very small sum compared to the whole and is likely to have small or zero marginal incentive effect, which is gained at the disproportionate expense of the

83. See Macaulay Speech of 1841, supra note 4, at 200.
85. See id.
86. See id.
87. I say "probably" because the longer the author lives, the longer her copyright term will be. The year of expiration in text is merely based on the hypothetical actuarial table stipulated above.
89. See Varian Affidavit at para. 5-9, Eldred (No. 99-5430).
public. (I will return to the issue of disproportion below.) Nevertheless, under the terms of my hypothetical, the CTEA would make the new book worth an additional $320 to the author. Conceivably, that prospect may add to her incentives. (Probably not, but conceivably). But even so, how will she be persuaded to do new work by learning that not only her new work, but also existing works will gain the extra twenty years of protection? For our author to be persuaded to do new work by the retrospective increases, she would have to interpret that aspect of the CTEA as a promise that Congress will in the future retrospectively increase the term that her 2002 works will have under the CTEA’s life plus seventy years, to a term that is still longer. Further, she would have to believe that such a promise, if fulfilled, would make a financial difference to her.

Recall that adding the extra twenty years at a distance of life-plus-fifty was worth only $320 in present value because of the many years that would pass between the author’s decision to create (today) and the potential revenue (far in the future). By the same logic, extending the term again from life-plus-seventy to life-plus-ninety would have a present value far less than $320—and the present value of an extension to life-plus-ninety would need to be further reduced because of the inevitable risk that Congress could not fulfill the “promise.” It is absurd too imagine therefore that a conditional “promise” to extend copyright beyond life-plus-seventy would make a difference to the author.

90. See Liebowitz, supra note 75, at Figure 2 and accompanying explanation.

Macaulay argued that “[a] monopoly of sixty years produces twice as much evil as a monopoly of thirty years, and thrice as much evil as a monopoly of twenty years.” Macaulay Speech of 1841, supra note 4, at 200. This is mathematically correct if by “evil” he meant the costs to the public without regard to the offsetting benefits that copyright also brings. Taking both into account, however, Macaulay underestimated.

The offsetting benefits are higher, and the costs lower, in the first years of a monopoly than in its later years. The deadweight loss caused by increases in monopoly duration grows at a far faster rate than the incentive effect does. See Liebowitz, supra note 75, and my discussion of his thesis infra Part IV. A monopoly of sixty years imposes more than twice as much deadweight loss (exclusive of the impact of discounting) as does a monopoly of thirty years.

91. See infra Part IV.

92. See supra Part III.A. (the implausible and many-part argument that seeks to portray the CTEA as part of a promise-keeping or reputation-enhancing move by Congress). Compare this with the immediate incentive
It is also important to note an internal inconsistency. To argue as the proponents of the CTEA do, that authors should expect that Congress will give such further extensions, assumes what CTEA advocates usually try to deny: that unless cabined by the instant case, copyrights will continually increase in duration in the future.

C. Restraining the Creativity of New Generations of Authors

Increasing a copyright's term increases the costs of new creation. We noted that our hypothetical creator’s copyright would have expired, under pre-CTEA law, in 2077. A young creator in 2078 may be inspired, irritated, or frankly captured by our creator’s 2002 work.

He may have no road except that road. As one artist has said:

Creative people are prisoners. That is to say that they get “captivated,” and the only way out is to beat a path away from the point of captivity. If my attention is “captured,” it is impossible to simply get away. The bars are not physical. They are produced by the intellectual, the emotional, or, more usually, a combination of the two. But, they are as functional as any jail cell you will ever construct in the material world.

The key to the cell is permission to use the artifact that has so captured the artist. Unfortunately, sometimes licenses will not be granted. As Lord Macaulay argued:

I seriously fear that, if such a measure as this [copyright extension] should be adopted, many valuable works will be either totally suppressed or grievously mutilated. [T]hat the danger is not chimerical may easily be shown....

93. See Brief for Respondent, supra note 33 at 30-34.
94. See Landes & Posner, supra note 2, at 361-63.
95. See supra Part III.B.
97. Macaulay Speech of 1841, supra note 4, at 204.
One of the most instructive, interesting, and delightful books in our language is Boswell’s Life of Johnson. Now it is well known that Boswell’s eldest son considered this book, considered the whole relation of Boswell to Johnson, as a blot in the escutcheon of the family. He thought, not perhaps altogether without reason, that his father had exhibited himself in a ludicrous and degrading light. And thus he became so sore and irritable that at last he could not bear to hear the life of Johnson mentioned. Suppose that the law had been what my honorable and learned friend wishes to make it. Suppose that the copyright of Boswell’s Life of Johnson had belonged, as it well might, during sixty years, to Boswell’s eldest son. What would have been the consequence? An unadulterated copy of the finest biographical work in the world would have been as scarce as the first edition of Camden’s Britannia.

A prominent modern example of copyright being used as an instrument of suppression involves Margaret Mitchell’s saga of the South, Gone With the Wind. The Mitchell estate denied permission for a realistic version of Gone With the Wind, insisting (among other things) that interracial sexual relations be banished from any sequel. Alice Randall wrote a parodic sequel, The Wind Done Gone, without the permission of the copyright owner. Seeking to examine the world-view of Gone With the Wind and heal some of the hurts that book caused, Randall made her central character interracial: the daughter born from the union of Mammy (an African-American slave) and Mammy’s owner (a white man, Scarlett’s father). The Mitchell estate, unsurprisingly, sued Randall. Initially the estate was successful. Sale of The Wind Done Gone was enjoined.

Randall would not have been sued if the copyright in Gone With the Wind had not been extended. Yes, Randall wrote the book despite the CTEA, and might have been awarded fair use treatment

98. Boswell’s biography is the source of the material from Johnson quoted earlier, supra note 26.
eventually. Nevertheless, no one can deny that the extension of copyright in Margaret Mitchell's book drastically increased the cost of Alice Randall's book (and she was rare in having a publisher willing to bear extensive legal costs). Alice Randall is the prototype of the creative copier who should be encouraged.

Not all persons similarly situated will be as courageous (or as lucky) as Randall was. The fragility of speech is well known—iconoclasts may be silent if their target icons are both well funded and entitled to sue.

There is a moral and constitutional aspect here as well. The cure for bad speech is more speech. Predecessor authors should not be entitled to harm us and then use copyright to prevent us from having redress.

In a recent interview, Randall made clear that Gone With the Wind had injured her and many other African-Americans. Although as a young girl Randall loved Gone with the Wind, as an adult she came to realize she would have been better off never having read the book—she says now that if blindness would have enabled her to avoid reading it, she would rather have been "born blind".

Psychologists tell us that not only must we speak of our traumas to decrease their hold over us, but also that being required to keep silent inflicts an additional trauma. It may not be sufficient to

103. Whitney v. California, 274 U.S. 357, 377 (1927) (Brandeis, J., concurring) ("[T]he remedy to be applied is more speech, not enforced silence.").
104. See generally Gordon, A Property Right in Self-Expression, supra note 2.
106. See, e.g., ALICE MILLER, FOR YOUR OWN GOOD: HIDDEN CRUELTY IN CHILD-REARING AND THE ROOTS OF VIOLENCE (Hildegarde & Hunter Hannum trans., 2001):

It is not the suffering caused by frustration... that leads to emotional illness but rather the fact that the child is forbidden by the parents to experience and articulate this suffering, the pain at being wounded... Children are not allowed to reproach their gods—their parents and teachers.

Id. at 252.
write about those traumas in order to exorcise them: one may need to relive and rewrite them. The process of aesthetic growth may require recasting the works that for good or ill have shaped an artist’s inner life. In the words of Harold Bloom, the serious work of a poet begins with his “creative misprision” of the works that came before.  

One must work through one’s predecessors—both in the sense of reading and interpreting, and sometimes in the sense of speaking in their forms, using their tropes or settings or characters—sometimes finding one’s own voice only by listening to how it alters the telling of a known story.

Like all of us, artists often have little choice about what is meaningful to them; if the road is blocked, expression is blocked. Some of the blockage that copyright imposes may be tolerated as necessary—but the CTEA’s virtual century of exclusivity is not necessary. What is lost is more than the individual artist’s ability to find his or her voice, for artists are spokespersons as well: they serve their audiences as well as themselves.

It is difficult to speak of what makes an author. Lewis Hyde in his evocative book, The Gift, suggests that an important part of the process is the living relation between the artist and what he receives. The beauty of the physical world and the life within predecessor artists’ work create in the receiving artist a sense of gratitude. The artist repays the gift by his own creation—so that gratitude becomes a catalyst (or better, a nutrient fluid) fostering new creativity. Hyde points out at least two things that can interfere with

[1] It is not the trauma itself that is the source of illness but the unconscious, repressed, hopeless despair over not being allowed to give expression to what one has suffered...

Id. at 259


108. See Boggs, supra note 96.

109. As a college student, I found the Air Pirates’ satires of Disney characters exhilarating and, in a subtle way, freeing. When Disney sued, the Air Pirates parodies were enjoined as copyright infringements, and taken off the shelves. Walt Disney Prods. v. Air Pirates, 581 F.2d 751 (9th Cir. 1978). For more about the Air Pirates, see Gordon, A Property Right in Self-Expression, supra note 2, at 1602-04.

this necessary gratitude: monetary payment, and a sense of calculation.\textsuperscript{111} 

In my mind, the danger lies less in a need to pay, than in a need to calculate. Imagine a composer inspired by a book that she read as a child to make an opera of it. Can you imagine her genuine impulse of creativity surviving the calculating process? Calculating the license cost; comparing the cost of that license with the license to use other books; manufacturing an inspiration to match whatever book bore a license fee she can afford . . . that is not the way that many of our best creative people operate. Those whose motivation is intrinsic\textsuperscript{112} are not free to calculate, to search for the cheapest license or the author's heir who doesn't object to being reinterpreted and criticized.

Many copyrighted works may be produced solely for money. Nevertheless, everyday experience and psychological research both suggest that as a society we benefit most from those works produced by persons whose aesthetic is internally driven.\textsuperscript{113} Today's artists need money to live on, of course, as did their predecessors. But at some point, the lever that extracts payment discourages the later author much more than it feeds the earlier.

D. Why the Positive Effects, If Any, Affect Noncreative More Than Creative Activity

Exclusivity can both create and destroy economic value.\textsuperscript{114} When exclusivity is profitable, only noncreative copiers need to obtain it by piggybacking on a long-dead author's copyright.

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{111} See id. at chs. 3, 8.
\item \textsuperscript{112} Theresa Amabile and other social psychologists have determined that, in many instances, external motivation in the form of rewards can increase the quantity of creative work, but is likely to decrease its quality. Intrinsic motivation tends to produce better work. See Teresa M. Amabile, et al., Creativity In Context: Update To The Social Psychology Of Creativity (1996).
\item \textsuperscript{113} Id. (by implication).
\item \textsuperscript{114} At one extreme is the tragic commons, where loss of value can be remedied by (inter alia) instituting exclusivity. At the other extreme is the tragic anticommons, where loss of value can be remedied by (inter alia) giving common privileges of use. See Heller & Eisenberg, supra note 3, and sources cited therein.
\end{enumerate}
\end{footnotesize}
By contrast, the creative person who translates or adapts or arranges something in the public domain gets her own copyright, and starts a new copyright term running. She does not need to license from a prior generation copyright owner in order to obtain exclusivity; she has it as of her own right. Therefore, the translator, transmuter, or other creative copier cannot benefit from an extended copyright in pre-existing works, except by the attenuated and implausible argument sketched above.

Thus, the instant retrospective term extension can at best increase the amount of noncreative copies in the world. Creative users of past works do not need extensions of copyright term in order to have protection against copying, for their work starts copyright anew.

If this term extension encourages anyone, therefore, it encourages the noncreative. In the process it makes things more difficult for the creative author, such as Alice Randall, who wants to address her culture’s iconic works by inhabiting their shells and showing audiences their unexpected dimensions and hidden rooms. To favor the uncreative over the creative turns copyright on its head.

IV. THE ECONOMISTS’ BRIEF

An amicus brief filed by several prominent economists suggests that the CTEA is not economically desirable. Their brief, while excellent, could have been even stronger. Because the brief chooses
not to discuss what Demsetz called the “Nirvana Fallacy,” the brief fails to show how as the duration of copyright increases, the costs that copyright imposes increase disproportionately in relation to its benefits. This Article briefly suggests how the economic presentation could be fleshed out.

A threshold issue needs first to be disposed of: the proper locus for comparing social cost and social benefit. A casual reader of the Economists’ Brief might think that the economists mean to compare “the additional cost of term extension” with “the additional compensation for creating new works.” However, the social benefit with which the brief is ultimately concerned is not the “additional compensation.” The potential social benefit of a term extension is, rather, what the additional compensation may call forth for society: an increase in the quantity or quality of works over what would have been produced under a shorter term.

This clarification may help resolve a confusion that occasionally arises. Commentators sometimes criticize the standard argument for

120. Indeed, the two are linked in seeming parallel. See Economists’ Brief, supra note 25, at 11.
121. Admittedly, one could construct a social welfare function in which the copyright owners’ revenues (independent of incentives) constitutes a social benefit. However, this is neither what the brief intended, see Economists’ Brief, supra note 25, at 10 (“benefits, in the form of additional incentives to create”), nor is this a social welfare function that ordinary economic analyses of copyright would invoke.

The pursuit of justice is also a social benefit, of course, albeit one not easily measured. Would the added compensation (independent of incentives) serve justice? I doubt it. Even to someone like me, who is convinced of the justice of some copyright as an institution, the long term of the CTEA exceeds most plausible claims of justice-based entitlement. See Jane C. Ginsburg, Wendy J. Gordon, Arthur R. Miller, & William F. Patry, The Constitutionality of Copyright Term Extension: How Long Is Too Long? 18 CARDOZO ARTS & ENT. L.J. 651, 674-686 (2000) (speech of W. Gordon). Thus, while I have argued that creators have some claim to reward independent of incentives, Wendy J. Gordon, An Inquiry Into The Merits of Copyright: The Challenges of Consistency, Consent and Encouragement Theory, 41 STAN. L. REV. 1343 (1989), when I examined creators’ justice claims in more depth I concluded that the claims, though real, were quite limited. See Gordon, A Property Right in Self-Expression, supra note 2; Gordon, On Owning Information, supra note 48.
122. See Economists’ Brief, supra note 25, at 10 (“benefits, in the form of additional incentives to create”)

120. Indeed, the two are linked in seeming parallel. See Economists’ Brief, supra note 25, at 11.
121. Admittedly, one could construct a social welfare function in which the copyright owners’ revenues (independent of incentives) constitutes a social benefit. However, this is neither what the brief intended, see Economists’ Brief, supra note 25, at 10 (“benefits, in the form of additional incentives to create”), nor is this a social welfare function that ordinary economic analyses of copyright would invoke.

The pursuit of justice is also a social benefit, of course, albeit one not easily measured. Would the added compensation (independent of incentives) serve justice? I doubt it. Even to someone like me, who is convinced of the justice of some copyright as an institution, the long term of the CTEA exceeds most plausible claims of justice-based entitlement. See Jane C. Ginsburg, Wendy J. Gordon, Arthur R. Miller, & William F. Patry, The Constitutionality of Copyright Term Extension: How Long Is Too Long? 18 CARDOZO ARTS & ENT. L.J. 651, 674-686 (2000) (speech of W. Gordon). Thus, while I have argued that creators have some claim to reward independent of incentives, Wendy J. Gordon, An Inquiry Into The Merits of Copyright: The Challenges of Consistency, Consent and Encouragement Theory, 41 STAN. L. REV. 1343 (1989), when I examined creators’ justice claims in more depth I concluded that the claims, though real, were quite limited. See Gordon, A Property Right in Self-Expression, supra note 2; Gordon, On Owning Information, supra note 48.
122. See Economists’ Brief, supra note 25, at 10 (“benefits, in the form of additional incentives to create”).
limited duration on the ground that it seems to compare (1) future royalties discounted to present value with (2) undiscounted future deadweight costs. Since future gains and losses should ordinarily be treated the same way—either both discounted, or both not discounted—this criticism would be powerful if it accurately described the economic basis for limited duration. But the criticism misdescribes its target.

Future royalties are not what the standard argument for limited duration places on the “benefits” side of the scale. What it places on the scale is the value of new or improved works brought forth. This value is in turn treated the same way as are the deadweight costs.

Perhaps the confusion arises because authors themselves indeed discount as part of their calculations. When deciding whether to get out of bed in the morning, a potential author will be tempted less by long-distant rewards than by immediate ones. But economists focus on what this discounting perception produces: not the authors’ perception of reward but the works the authors produce in response to it. Copyright’s contribution to the work’s coming into being is weighed in the same way as copyright’s contribution to societal cost. Thus, the standard economic argument for limiting copyright’s duration does treat gains and losses symmetrically.  

It is also worth clarifying the nature of the social cost imposed by term extension. As the preceding section of the Article makes clear, this cost is not solely monetary. For both audiences and creators, the cost is one of experience. Audiences have less access to their culture if monopoly keeps the price of copies high, and term extension will also make it harder for young authors to make new works—particularly works that reshape the cultural reality the authors themselves have experienced. The works foregone may be

123. For example, one can do the computation with no discounting on either side: comparing the undiscounted future deadweight costs with the similarly undiscounted value of new works bought forth by the copyright monopoly.

In addition, one could restate the standard case in a way that dispenses with the language of “deadweight loss” altogether. One could simply compare cultural output under different states of the world: a world with no copyright, a world with perpetual copyright, and worlds with durations in between. This is the method illustrated by the graph and mathematical example in note 81 supra.

124. See supra section III.C.

125. See Wendy J. Gordon, Reality as Artifact: From Feist to Fair Use, 55 L. & CONTEMP. PROBS. 93 (1992) (suggesting that just as early man drew pictures of the beasts, wood and water around him, contemporary artists must—to
commercial and trivial, or heartfelt and culturally crucial: the "social cost" of copyright extension includes both.

Now let us turn to the Nirvana Fallacy and systematic disproportion between cost and benefit that arises as copyright term extends.

In assessing the costs associated with the copyright monopoly, many analysts compare the price and number of copies that "could have been made" under perfect competition, with the price and number of copies under the partial monopoly of copyright. They use the label "deadweight loss" to identify the social benefit that could have been achieved if copies had been available at a competitive price, a benefit which is "lost" under copyright. However, for items that need the copyright monopoly to come into existence, there is no level of competitive price and quantity with which to compare. To believe otherwise would mean believing in a Nirvana where, impossibly, pure competition coexists with works that need monopoly to come into existence.

Therefore, in assessing the social cost of intellectual property, one should not consider it a social cost that a work called forth by the monopoly is sold by its owner at a price higher than the owner could have demanded in a perfectly competitive world. When then do "deadweight losses" arise? They arise when there is extra copyright protection beyond what is needed to call forth the work. The deadweight loss that should count is that attributable to extra amounts of protection—amounts of protection that stifle speech without creating new speech.

At first blush, this insight might seem to aid the proponents of the CTEA, since the argument suggests that deadweight losses are overstated in many conventional analyses. However, as Stanley Liebowitz has shown, the insight has an even more powerful implication: that the cost of monopoly increases at a far faster rate than

capture and deal with their environment—depict what surrounds and influences them, including artifacts that others have made); Gordon, *A Property Right*, supra note 2, (arguing that under natural law, a new generation of artists should have a right equal to that of their predecessors to recreate and transform their environment, even if today’s environment is largely man-made).

126. It would indeed be an error to count all copyrighted works as generating deadweight loss. Similarly, one should not assume that a lack of copyright would yield pure competition. Without copyright, factors such as lead time advantage and potential for retaliation would provide some monopoly profits. *Cf.* Breyer, *supra* note 34.
the incentive effect does.\textsuperscript{127} Taking into account only the loss attributable to unnecessary copyright protection makes it easier to see the costs of long copyright terms. Every year of added duration brings additions to the group of works as to which copyright generates deadweight loss,\textsuperscript{128} and subtractions from the group as to which copyright provides a social benefit.

To see that, let us backtrack to basics. Different creative works require different incentives. Some works would have come into being without any copyright at all; some would have come into being with a promise of five years of copyright protection; some would have come into being with a promise of ten years of protection; and so on. Only when a work would have come into existence without the need of a particular monopoly provision, should that provision be counted as generating a deadweight loss. This applies to provisions about duration as well. Every year that copyright lasts, more and more works fall into the category of works that did not need a copyright term this long to be produced.

Consider, for example, a copyright duration of five years. Assume there is a work for which the author needed the full five-year term to be induced to produce the work. Let us assume the work in question is an interpretive translation of \textit{Beowulf}\textsuperscript{129} called "\textit{Beowulf Transmuted}." For "\textit{Beowulf Transmuted}," a five-year copyright term generates no loss: if the book is valuable, its value is a gain attributable to that five-year copyright.\textsuperscript{130} However high in price and small in quantity the copies of "\textit{Beowulf Transmuted}" might be, they are a pure gain compared to an alternative state of shorter copyright in which this version of Beowulf did not exist. This is not true as to works that would have come into being with a term of less than five years: for a work that needed only three years of copyright to come into being, a five-year term generates two years of deadweight loss.

\begin{enumerate}
\item See Liebowitz, supra note 75 at Figure 2 and accompanying explanation.
\item \textit{Id.} In this and succeeding paragraphs of the instant section, my analysis is heavily indebted to that of Liebowitz.
\item \textit{Beowulf} (Michael Alexander ed., 1995).
\item The work's existence is also attributable to many other contributing causes, such as the translator's efforts, dictionaries she may have employed, and, of course, the sources of the first \textit{Beowulf}. When I speak of the work's being "attributable to" copyright, I mean only that copyright is one of its many causes-in-fact.
\end{enumerate}
What happens in year six? I have already stipulated that the author of "Beowulf Transmuted" would have written it so long as she anticipated copyright protection would last five years. If copyright ended at five years, in year six the book would be in existence, and could be reproduced and sold competitively. Per-copy price would go down and the quantity in circulation would rise.

By contrast, if copyright continued in the sixth year, the book would be sold at a higher price to fewer people. Under copyright, it would thus generate less benefit than it could in the absence of copyright. The decrease is "deadweight loss" attributable to the extra year of protection. In assessing the value of a sixth year of copyright, then, an economist would put "Beowulf Transmuted" into the category of works for which copyright generates a loss—although for the fifth year of the copyright's duration, the book had belonged in the category of works for which copyright generated a social benefit.1

Every year, more and more works make the transition from the plus to the minus category. The same book for which copyright generated no deadweight loss in year Y (because its author needed as incentive a copyright whose term continued through that year), may generate deadweight loss the next year. Should the Court uphold the term of "life plus seventy," every book and film that would have come into existence even without the extra twenty years falls into the category of contributing to deadweight loss.

V. Conclusion

In assessing the constitutionality of copyright legislation, this Article suggests the Supreme Court should weigh effects on creative activity more heavily than effects on noncreative physical activity. The CTEA retrospective extension of copyright term has at best the potential for giving inducements to noncreative physical activities. At the same time, the extension will impose strong restraints, many of whose negative effects will be felt by creative activities. Moreover, the negative effects grow larger the longer duration extends. If copyright is the "engine of free expression,"132 then the CTEA's

131. See the mathematical example and charts supra note 81 for an illustration of the mechanism.
retrospective term extension is an engine that is broken: it burns oil and drives us nowhere.

Should the Court accept the differential weighing of creative mental activities and noncreative physical activities, the Court would not need a precise and detailed empirical examination to determine the unacceptability of the CTEA retrospective extension. Being generous to the CTEA's proponents and assuming arguendo that the retrospective extension could induce more preservation and dissemination than it restrains, the best that could result from that extension is an increase in noncreative activity (silver) at the cost of creative activity (gold). Given the great difference in density that gold and silver have, someone holding a nugget of each metal does not require a mechanical scale in order to determine which nugget is heavier and more valuable.

Also, remember that it is only by giving substantial deference to Congress that one can assume even arguendo that the retrospective extension could produce silver at all. It is far more likely that the retrospective grant will restrain more preservation and dissemination than it generates—producing not silver but dross. Dross does not belong on the measuring scale at all.