

April 2001

Owning Digital Copies: Copyright Law and the Incidents of Copy Ownership

Joseph P. Liu

Follow this and additional works at: <https://scholarship.law.wm.edu/wmlr>



Part of the [Intellectual Property Law Commons](#)

Repository Citation

Joseph P. Liu, *Owning Digital Copies: Copyright Law and the Incidents of Copy Ownership*, 42 Wm. & Mary L. Rev. 1245 (2001), <https://scholarship.law.wm.edu/wmlr/vol42/iss4/5>

Copyright c 2001 by the authors. This article is brought to you by the William & Mary Law School Scholarship Repository.

<https://scholarship.law.wm.edu/wmlr>

OWNING DIGITAL COPIES: COPYRIGHT LAW AND THE INCIDENTS OF COPY OWNERSHIP

JOSEPH P. LIU*

ABSTRACT

As copyrighted works are increasingly distributed in digital form over the Internet, our conventional print-based understandings of the rights associated with copy ownership are coming into increasing conflict with the copyright owner's right to restrict copying. Specifically, certain common activities, such as reading and transferring physical copies of copyrighted works (such as books), are increasingly being viewed as potential acts of copyright infringement when applied to digital copies. This Article explores this conflict by taking a close look at the concept of copy ownership. It argues that conventional notions of physical property ownership play an important, unrecognized role in copyright law. It further argues that, in order to preserve this role, copyright law should recognize an unlimited right to access digital copies in one's possession and a more limited right to transfer such copies to others.

* Assistant Professor, U.C. Hastings College of Law. Thanks to Vik Amar, Margareth Barrett, Stacey Dogan, Allen Ferrell, William Fisher III, Mark Lemley, Michael Madison, R. Anthony Reese, Aaron Rappaport, Marc Spindelman, and Alfred Yen for helpful comments and suggestions. All errors are mine alone.

TABLE OF CONTENTS

INTRODUCTION	1247
I. THE PROBLEM WITH DIGITAL COPIES	1254
A. <i>Current Law</i>	1255
B. <i>Implications and Questions</i>	1262
C. <i>Framework for Analysis</i>	1273
II. OWNING PHYSICAL COPIES	1278
A. <i>What Copy Owners Do Not Own</i>	1279
B. <i>What Copy Owners Do Own</i>	1286
1. <i>The Ability to Read</i>	1286
2. <i>The Ability to Transfer</i>	1289
3. <i>Other Owner Rights</i>	1294
III. WHY COPY OWNERS OWN WHAT THEY OWN	1296
A. <i>Conventional Understandings of Property</i>	1300
B. <i>Balancing Incentives and Access</i>	1308
C. <i>Maximizing Returns and Minimizing Transactions Costs</i>	1314
D. <i>Promoting Noneconomic Values</i>	1325
IV. OWNING DIGITAL COPIES	1336
A. <i>Toward a Theory of Digital Copy Ownership</i>	1337
1. <i>A Right to Access</i>	1337
2. <i>A Right to Transfer</i>	1349
B. <i>Alternatives and Anticipated Objections</i>	1360
CONCLUSION	1365

INTRODUCTION

Copyright law places a number of limits on what I can do with my dog-eared copy of William Faulkner's *As I Lay Dying*.¹ I cannot run it through the photocopier to make another copy. I cannot read from it aloud in a public place. Nor can I translate the book into a foreign language (assuming I could speak one). These are things that I simply cannot do with my book, at least not without permission from the copyright owner or some statutory privilege. At the same time, copyright law permits me to do many, if not most, other things with my copy of that book. I can read it as many times as I want. I can lend it to a friend. I can destroy it. I can sell it to a stranger. I can even rent it out for a fee. All these things I can do without asking the copyright owner for permission or relying on some notion of fair use.² What explains the differences in these activities? Why can I do some things with my book, but not others?

One standard explanation is that copyright law picks and chooses among different permissible uses in order to strike a careful balance between the rights of the producers of works and the rights of consumers.³ According to this view, copyright law has never granted producers the right to control all uses of their works. Instead, it confers only a limited bundle of rights: the rights to reproduce,

1. WILLIAM FAULKNER, *AS I LAY DYING* (1930).

2. Much academic attention has been focused on the precise scope of the fair use privilege. See, e.g., William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 HARV. L. REV. 1659 (1988) [hereinafter Fisher, *Fair Use Doctrine*]; 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 (1982); Pierre N. Leval, *Toward a Fair Use Standard*, 103 HARV. L. REV. 1105 (1990); Lloyd L. Weinreb, *Fair's Fair: A Comment on the Fair Use Doctrine*, 103 HARV. L. REV. 1137 (1990). Comparatively less sustained attention has been paid to the limitations built into the rights established under section 106 of the Copyright Act. But see, e.g., William W. Fisher III, *Property and Contract on the Internet*, 73 CHI.-KENT L. REV. 1203, 1206 (1998) [hereinafter Fisher, *Property and Contract*].

3. See, e.g., Jessica Litman, *Revising Copyright Law for the Information Age*, 75 OR. L. REV. 19, 31 (1996) ("Copyright owners, however, have never been entitled to control all uses of their works. Instead, Congress has accorded copyright owners some exclusive rights, and reserved other rights to the general public."); see also PAUL GOLDSTEIN, *COPYRIGHT: PRINCIPLES, LAW AND PRACTICE* § 1.14 (1998) (noting that the Copyright Act contains "a scheme of carefully balanced property rights" between authors, publishers, and consumers); L. RAY PATTERSON & STANLEY W. LINDBERG, *THE NATURE OF COPYRIGHT: A LAW OF USERS' RIGHTS* (1991) (discussing the historical context of copyright law and the balance of rights among the author, producer, and user).

publicly perform, publicly display, publicly distribute, and make derivative works.⁴ These rights are designed to give producers an incentive to keep producing. But, according to this explanation, giving producers any additional rights (such as the right to control reading or resale) would unduly restrict the access to, and the wide dissemination of, copyrighted works that the copyright laws are designed to foster. The particular bundle of copyright rights is thus determined through this careful balancing of incentives and access.

Yet, upon closer examination, this account does not completely explain why we have struck the balance that we have. For example, the ability to sell a copy of a book to another would appear to reduce the incentives to create works. After all, by selling the book to another individual, I potentially deprive the author of royalties from a sale of the book. The sale is nearly a perfect substitute. Why does copyright law not restrict this activity? Conversely, prohibiting the public performance of a piece of music would appear to restrict wide access to, and broad dissemination of, that work. Why does copyright law bar this kind of dissemination? It may be that the current bundle of rights, as a descriptive matter, leads to a certain balance of rights and access, but this balance seems contingent. If a balance needs to be struck, there would appear to be any number of ways to strike it. What accounts for the particular balance struck by our existing copy copyright laws, the particular division of rights between copyright owner and copy owner?

Another possible explanation, and one that seems more convincing to me, is that the bundle of rights, and the corresponding limits on that bundle, are determined in part by certain conventions and understandings that we commonly hold about the ownership of physical property.⁵ For example, I own my copy of *As I Lay Dying*. Once I buy my copy, I should be entitled to dispose of it as I wish. This is, after all, what it ordinarily means to own a piece of physical property. While this entitlement may not extend to running it through the copy machine, it surely should include my right to read the copy, to sell the copy, or to lend it to a friend. Under the common law, restraints on the free alienation of physical property

4. See 17 U.S.C. § 106 (1994 & Supp. V 1999).

5. I do not suggest that these are the only two possible explanations. In fact, later in this Article I expressly consider, in much more detail, a number of different possible explanations for the bundle of rights. See *infra* Part III.

are generally disfavored. In copyright law, this disfavoring finds doctrinal expression in the "first sale" doctrine, which generally bars copyright owners from exerting certain types of control over copies of their works once they have parted with title over a particular copy.⁶ Thus, under this explanation, the bundle of copyright rights is limited by our conventional understandings about physical personal property. Such conventional understandings help draw the line between the rights of copy owners and copyright owners. Or, perhaps more accurately, these understandings provide the physical baseline upon which copyright law is imposed.

But if this is the explanation, or at least *an* explanation, for the current bundle of copyright rights, how should we think about the bundle when our copies of copyrighted works begin to lose their physical characteristics?⁷ It should be clear by now to just about everyone that we are currently in the midst of a dramatic transformation in the way in which copyrighted works are distributed.⁸ Whereas such works were once distributed primarily in the form of physical, tangible copies, today such works are increasingly taking on intangible form. Specifically, with the advent of the Internet, more and more copies of copyrighted works are being distributed in digital form—digitally encoded in an electromagnetic pattern of ones and zeros. Today, it is not at all uncommon to find not only text, but also pictures, sound clips, software, and, increasingly, video clips distributed over the Internet in digital form. And as the capacity of networks increases and compression technologies improve, this trend will only accelerate.

6. See 17 U.S.C. § 109; *Quality King Distribs., Inc. v. L'Anza Research Int'l, Inc.*, 523 U.S. 135, 152 (1998) ("The whole point of the first sale doctrine is that once the copyright owner places a copyrighted item in the stream of commerce by selling it, he has exhausted his exclusive statutory right to control its distribution.").

7. See John Perry Barlow, *The Economy of the Mind*, WIRED 2.03 (Mar. 1994), available at http://www.wired.com/wired/archive/2.03/economy.ideas_pr.html (using the term "vaporous cargo" to describe the "galloping digitization of everything not obstinately physical, [which is] sailing into the future on a sinking ship"); Charles Mann, *Who Will Own Your Next Good Idea?*, ATLANTIC MONTHLY (Sept. 1998).

8. See Jane Ginsburg, *From Having Copies to Experiencing Works: The Development of an Access Right in U.S. Copyright Law*, in U.S. INTELLECTUAL PROPERTY: LAW AND POLICY (Hugh Hansen ed., 2000); NICHOLAS NEGROPONTE, *BEING DIGITAL* (1995).

As more and more content becomes distributed in digital form, however, our instincts about physical personal property begin to have less and less purchase.⁹ The conventional understandings we possess about physical copies—the ones that seem to explain and help define much of the existing balance of copyright law—do not seem so applicable to copies that take intangible, electronic form. The physical baseline upon which copyright law acted no longer exists. The result is that the appropriate balance of rights between copy owner and copyright owner becomes less clear. For example, assume that I download a copy of *As I Lay Dying* onto the hard drive of my computer so I can read it later. No physical property has changed hands. What rights have I acquired in the digital copy? What rights have I acquired over the magnetic pattern of ones and zeros that currently rests on a portion of my hard drive? Can I access it as many times as I want? Can I send those ones and zeros to a friend? Can I sell my computer to another person, along with the embedded copy of *As I Lay Dying*? What, exactly, do I now “own”?

Surprisingly, under existing law, the answer is not at all clear. Some have argued that I physically own exactly what I have always owned—the actual piece of magnetic disk that holds the ones and zeros that represent the novel.¹⁰ I can do with that piece of disk whatever I could have done with it in the past. If I want to clip out that portion of my disk and hand it to another, I am fully entitled to do so. If I want to remove the hard drive and send it to a friend, I can do so. But if I want to send the work to my friend over the Internet, I will be infringing upon the copyright, because my

9. See Niva Elkin-Koren, *Copyright Law and Social Dialogue on the Information Superhighway: The Case Against Copyright Liability of Bulletin Board Operators*, 13 CARDOZO ARTS & ENT. L.J. 345, 383 (1995) (“The notion of ‘copy’ in a digitized environment may impact the implementation of copyright policy. This concept is central to the economic rationale of copyright law.”).

10. See *MAI Sys. Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (9th Cir. 1993); INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE, THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS (1995) [hereinafter WHITE PAPER]; see also Digital Millennium Copyright Act of 1998, Pub. L. No. 105-304, 112 Stat. 2860 (codified as amended in scattered sections of 17 U.S.C.) (amending the Copyright Act); Jane C. Ginsburg, *Putting Cars on the “Information Superhighway”: Authors, Exploiters, and Copyright Infringement in Cyberspace*, 95 COLUM. L. REV. 1466, 1475 (1995) (“[R]ights copyright confers will be the same whatever the format of the work, whether originally created in hard copy or in digital format . . .”).

sending the work will necessarily entail the creation of a copy of that digital pattern of ones and zeros.¹¹ Indeed, several courts have held that even my accessing the document by computer may constitute an infringement, because this leads to the creation of a copy of the work in my computer's random access memory (RAM).¹² Yet something about this seems very odd. Why should the scope of my rights, as a practical matter, depend so dramatically on the particular medium in which I have captured the copy? Why should what I can do with a book depend so dramatically upon whether I have downloaded the book onto a hard disk or purchased a copy in a bookstore?

Others argue that copyright law should be interpreted or translated, not literally, but functionally, so as to preserve the substantive rights that I formerly enjoyed with physical copies.¹³ Thus, for example, I should be entitled to send my digital copy of *As I Lay Dying* to a friend over the Internet as long as I am careful to delete the original copy from my hard disk.¹⁴ I should also be entitled to read the work as many times as I want, just as I can read a book as many times as I want, even if it means making multiple copies of the work in the RAM of my computer. Yet precisely why should we be so concerned about preserving in the

11. See Neil Weinstock Netanel, *Copyright and a Democratic Civil Society*, 106 YALE L.J. 283, 301 (1996) ("The NII White Paper also concludes, in contrast to the spirit if not the letter of the first sale doctrine, that the unlicensed electronic transmission of a work from one person to another does and should constitute an infringement, even if the transmitter has simultaneously deleted his copy from his computer.").

12. See MAI, 991 F.2d at 517-19; see also DSC Communications v. DGI Techs., Inc., 81 F.3d 597, 600 (5th Cir. 1996) (citing MAI); Triad Sys. Corp. v. Southeastern Express Co., 64 F.3d 1330, 1335-37 (9th Cir. 1995) (same); NLFC, Inc. v. Devcom Mid-America, Inc., 45 F.3d 231, 235 (7th Cir. 1995) (same); Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc., 75 F. Supp. 2d 1290, 1294 (D. Utah 1999) (same); Tiffany Design, Inc. v. Reno-Tahoe Specialty, Inc., 55 F. Supp. 2d 1113, 1120-21 (D. Nev. 1999) (same); Marobie-FL, Inc. v. National Ass'n of Fire Equip. Distribs., 983 F. Supp. 1167, 1177-78 (N.D. Ill. 1997) (same); Independent Serv. Orgs. Antitrust Litig. v. Xerox, 910 F. Supp. 1537, 1541 (D. Kan. 1995) (same).

13. See Elkin-Koren, *supra* note 9, at 273, 277; Jessica Litman, *The Exclusive Right to Read*, 13 CARDOZO ARTS & ENT. L.J. 29 (1994); Netanel, *supra* note 11, at 371-76; David Nimmer, *Brains and Other Paraphernalia of the Digital Age*, 10 HARV. J.L. & TECH. 1, 31-45 (1996).

14. See, e.g., Mark A. Lemley, *Dealing with Overlapping Copyrights on the Internet*, 22 U. DAYTON L. REV. 547, 584 (1997) ("There may be a reasonable middle ground in this case, such as permitting the transfer of an electronic work to a single party provided the sender deletes her copies of the work within a reasonable time.").

digital world the exact bundle of functional rights I enjoyed in the physical world?¹⁵ If those rights were based on our understandings about physical property, what justifies transposing those understandings into the digital world? Indeed, some commentators suggest that the novelty of the digital medium warrants a substantial reconsideration of copyright law, breaking it free from its historically constrained, print-based model.¹⁶ Instead of focusing on a technologically outdated notion of "copying," perhaps copyright law should focus instead on "access" or some other activity more appropriate to the digital environment.¹⁷

In this Article, I argue that this debate over digital copies raises, but largely fails to address, a fundamental question in copyright law about the relationship between the rights of owners of copies and rights of copyright owners. Put more simply, what does it mean to own a copy of a copyrighted work? A basic disagreement exists over the status of users' existing ability to read, access, lend, and rent physical copies of copyrighted works, all without consulting the copyright owner or infringing upon the copyright owner's rights. Are these "incidents of copy ownership" simply an accident of technology, an artifact of a print-based model of distribution? Or are they an inherent and fundamental feature of copyright law's balance of access and incentives? If the former, then perhaps we

15. Throughout this Article, I draw a rough distinction between "physical" copies and "digital" copies. Admittedly, this formulation is less than completely precise, as digital copies are still, strictly speaking, physical in the sense that they are embodied in a magnetic pattern that is physically perceptible with the aid of a machine. However, the distinction does at least roughly capture the difference between a tangible, human-readable, fixed, physical copy and a largely intangible, evanescent, manipulable digital copy.

16. See JAMES BOYLE, SHAMANS, SOFTWARE, AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY (1996); Ginsburg, *supra* note 8; Jessica Litman, *Copyright Noncompliance (Or Why We Can't "Just Say Yes" to Licensing)*, 29 N.Y.U. J. INT'L L. & POL. 237, 243 (1996-97) ("But, the truth is, we *all* need to give it up. That balance is gone. Whatever way we go, we will need to find a different balance."); Litman, *supra* note 3, at 39 (calling for the creation of an exclusive right to commercial exploitation); Raymond T. Nimmer & Patricia Ann Krauthaus, *Copyright on the Information Superhighway: Requiem for a Middleweight*, 6 STAN. L. & POLYREV. 25 (1994) (calling for replacement of copying with access).

17. I do not expressly address this debate in this Article. However, the approach of this Article implicitly assumes that copyright law will not entirely abandon its focus on the copy anytime soon. This assumption is not unreasonable, given the scope of such a potential change and the historical difficulty that Congress has had in making significant changes to the Copyright Act. See generally Jessica D. Litman, *Copyright, Compromise, and Legislative History*, 72 CORNELL L. REV. 857 (1987) (detailing the process that led to the 1976 Act).

should not be so concerned about shifts in the distribution of rights caused by changes in technology and instead be content with applying copyright law literally to the new environment. If the latter, then perhaps we should do more to ensure that these features are preserved despite changes in technology. Up until now, this question about the role played by these incidents of copy ownership has not been expressly addressed, because, until recently, copies of copyrighted works almost invariably took physical form and the incidents of copy ownership were simply a feature of the physical environment within which copyright law operated.

In this Article, I seek to answer this question expressly by examining what it means to own a copy of a copyrighted work. To do so, I move beyond the positions that have been staked out thus far in order to examine what support, if any, exists for these incidents of copy ownership among a number of major theoretical frameworks that have been offered in support of copyright law more generally. After applying these frameworks, I argue that these incidents of physical copy ownership—the ability to freely read and transfer physical copies of copyrighted works—in fact serve important economic and noneconomic values that are worth preserving in some form in the digital environment, namely, (1) an important economic value in accounting for transactions costs and information asymmetries involved in licensing small-scale uses of works and (2) important noneconomic values relating to the manner in which individuals consume and derive meaning from creative works through preservation of some degree of freedom and autonomy in the consumption of such works.

Accordingly, this Article ultimately recommends that copyright law expressly recognize an unlimited right to access digital copies in one's possession, and a more limited right to transfer such copies, under certain circumstances. It also suggests a number of concrete ways in which to implement such rights. Although the conclusion of this Article provides additional support for those who have been most critical of the recent federal court opinions and recent federal legislation, it advances a number of new arguments and, in a number of cases, proposes results that differ somewhat from such critics. Moreover, it attempts to provide a more solid, substantive basis for resisting these expansions of copyright owner rights, based

on an affirmative view of the rights of copy owners. In part, this reflects a belief that arguments based on maintaining or preserving a preexisting "balance" are weakened by the fact that different constituencies have radically different views about the optimality of any given balance.

This Article begins, in Part I, by defining the unique challenges presented by digital technology to the concept of copy ownership. Specifically, it discusses the Ninth Circuit's influential decision in *MAI Systems Corp. v. Peak Computer, Inc.*,¹⁸ its implications for digital copies, the numerous critiques of the decision, and the subsequent legal history. It also discusses the recently enacted Digital Millennium Copyright Act (DMCA). It then sets forth the broad framework for the subsequent analysis. Part II takes a close, descriptive look at the meaning of ownership of physical copies under existing copyright law. It examines the distribution of rights between copy owner and copyright owner and charts the changes in this distribution over time. Part III explores a number of possible normative rationales for this distribution, looking in particular at a number of major theoretical frameworks that have been advanced in support of copyright law.¹⁹ It ultimately concludes that the incidents of physical copy ownership help preserve certain economic and noneconomic values. Part IV then applies these insights to the question of ownership of digital copies, proposing that copyright law recognize these incidents to some degree in the online environment, in the form of an unlimited right to access, and a more limited right to transfer, digital copies in one's possession. This Part then examines different ways of implementing these conclusions doctrinally and, finally, addresses a number of anticipated objections.

I. THE PROBLEM WITH DIGITAL COPIES

The advent of digital technology and the distribution of content over digital networks is disrupting the existing balance of rights between copyright owners and users.²⁰ In many ways, this is

18. 991 F.2d 511 (9th Cir. 1993).

19. A side benefit of this analysis, as explained below, is that it highlights the relative value of these different frameworks in adapting to technological change.

20. See Litman, *supra* note 3, at 19 ("Our current copyright law is based on a model

nothing new. Copyright law has always been forced to adapt to changes in technology, from the printing press, to player piano rolls, to sound recordings, to radio and television broadcasts, to photocopiers, and now to digital technology. Yet digital technology presents at least one change that has not been seen before. Up to now, copyright law has focused primarily (though not exclusively, as we shall see) on the physical, tangible copy as the basic unit of consumption and infringement, the main threat to the copyright owner. For the first time, digital technology is significantly challenging the very idea of a physical copy. Copies of copyrighted works can now be distributed in digital form, without the exchange of any physical object, without any title in physical property changing hands, and all indications suggest that this will only increase over time, as computer network capacities increase and compression technologies improve. In this part of the Article, I examine the implications of this change and some of the doctrinal challenges it poses. The starting point is the Ninth Circuit's influential and controversial decision in *MAI*.²¹

A. Current Law

Years from now, the Ninth Circuit's decision in *MAI* may well be regarded as a foundational case, the case that established the underlying conceptual framework and structure for the application of copyright law to the new digital environment.²² But I sincerely hope not. In fact, I think it is safe to say that many, if not most, commentators would prefer to see *MAI* relegated to an obscure footnote—an aberrant decision subsequently limited, confined to its facts, or rejected as wrongly decided. Which of these two results will ultimately win out is currently being hotly contested in the courts, in Congress, and in law journals. What is beyond dispute, however, is that the controversial decision has already exerted a powerful

devised for print media, and expanded with some difficulty to embrace a world that includes live, filmed and taped performances, broadcast media, and, most recently, digital media.”).

21. Those already familiar with the details of *MAI* and the debate surrounding the decision may want to skip ahead to section B.

22. See James Boyle, *Intellectual Property Policy Online: A Young Person's Guide*, 10 HARV. J.L. & TECH. 47, 85-86 (1996) (considering whether *MAI* will “become the primary legal method of regulating the Internet—making this widely criticised opinion about software error logs, in effect, one of the landmark cases of the information society”).

influence on the current debate over the proper scope of copyright in digital works. The decision thus offers a good introduction to the new problems and challenges presented by digital copies.

In *MAI*, a panel of the Ninth Circuit held that the act of loading a computer program into a computer's RAM resulted in the creation of a copy of that program, implicating the copyright owner's exclusive right to reproduce the work. The plaintiff in the case, MAI, sold computer systems and licensed software running on those systems to users under relatively restrictive terms that limited the ways in which users could use the software.²³ The defendant, Peak, provided independent, third-party maintenance and servicing of users' computers and software. In the course of diagnosing and correcting a problem with a user's computer, Peak technicians would run a copy of MAI software residing on the user's computer.²⁴ MAI subsequently sued Peak, arguing that Peak's use of the software exceeded the terms of the license between MAI and the user, and that it therefore infringed MAI's copyright in the software by creating an unauthorized copy of the software in the computer's RAM.²⁵

Peak defended on the ground that the creation of a copy of the program in the computer's RAM, as a necessary by-product of running the program, did not constitute the making of a "copy" within the meaning of the Copyright Act.²⁶ The Act defines a "copy" as a material object in which a work is "fixed" and from which the work can be "perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine."²⁷ A work is, in turn, "fixed" if it is "sufficiently permanent or stable" to be perceived "for a period of more than transitory duration."²⁸ In order to run a

23. The record suggests that the license was not a "shrinkwrap" license, but rather a standard contract, signed by both parties. See *MAI*, 991 F.2d at 517.

24. See *id.* at 518.

25. The RAM of a computer consists of a computer chip, which the central processing unit (CPU) of the computer uses to store data that it is manipulating. Thus, for example, when a user launches a software program, the computer copies portions of the program from the fixed storage (typically the hard drive) into the RAM. This is a necessary step in the running of the program (or the accessing of a particular document or image). See *id.* at 519.

26. See *id.*

27. 17 U.S.C. § 101 (1994 & Supp. V 1999).

28. *Id.*

software program, a computer must copy portions of that software from the disk or other medium on which it is stored into the computer's RAM. These copies exist only temporarily while the program is running, and are erased once the program is no longer running or once the computer is turned off. Because the copies in the computer RAM were only transitory, Peak argued, they were not "fixed."²⁹

The Ninth Circuit panel rejected this argument. Although it cited a number of cases holding that copies made on a computer's hard disk, or read only memory (ROM), were sufficiently "fixed" to constitute "copies,"³⁰ the court noted that it found no case specifically holding that the creation of a copy in computer RAM was sufficiently "fixed."³¹ Nevertheless, the court went on, without much further discussion, to apply the plain language of the Act, concluding that a copy made in RAM was sufficiently fixed because it could be "perceived, reproduced, or otherwise communicated" with the aid of a machine, namely, the computer.³² The court further rejected the argument that Peak's actions were privileged under section 117 of the Act, which expressly permits "owners" of software to make or authorize the making of copies of software as an "essential step in the utilization" of the software.³³ The purpose of the section was to permit the owners of computer software to both use software they had purchased and to make backup copies in order to guard against the loss of such copies. The *MAI* court concluded, however, that the statutory privilege was not available because the user in the case was not an "owner" of the program, but

29. See *MAI*, 991 F.2d at 519.

30. See *id.*; *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 260 (5th Cir. 1988); *Apple Computer, Inc. v. Formula Int'l, Inc.*, 594 F. Supp. 617, 621 (C.D. Cal. 1984).

31. The court in *MAI* did not cite *ISC-Bunker Ramo Corp. v. Altech, Inc.*, 765 F. Supp. 1310 (N.D. Ill. 1990), which appears to have addressed nearly the identical issue (and reached essentially the same result) three years prior to *MAI*.

32. *MAI*, 991 F.2d at 519.

33. 17 U.S.C. § 117. See generally Robert A. Kreiss, *Section 117 of the Copyright Act*, 1991 BYU L. REV. 1497.

merely a licensee.³⁴ The court did not address the question of fair use, as the defense was not before it.³⁵

The Ninth Circuit's decision in *MAI* has received no dearth of criticism.³⁶ Commentators have objected mainly to the court's literal application of the terms of the Act to a completely novel context without any consideration of the broader purposes or policies underlying the statutory fixation requirement.³⁷ Indeed, RAM copies of computer software would appear to pose little if any threat to the incentives of software copyright owners. In selling or licensing a copy of computer software, copyright owners fully expect users to run the program, and a necessary incident to running the program is the creation of copies of the program in a computer's RAM. Thus, the creation of a RAM copy is an inherent part of the software's intended use.³⁸ Moreover, the RAM copy is not generally a substitute for the original program (as would be the case, for example, with a copy made on a hard disk). Accordingly, it is

34. See *MAI*, 991 F.2d at 518-19; see also *DSC Communications Corp. v. Pulse Communications, Inc.*, 170 F.3d 1354 (Fed. Cir. 1999) (reaching same result on nearly identical facts); *Applied Info. Management, Inc. v. Icart*, 976 F. Supp. 149 (E.D.N.Y. 1997) (same). But see *Telecommunications Technical Servs., Inc. v. Siemens Rolm Communications, Inc.*, 66 F. Supp. 2d 1306 (N.D. Ga. 1998) (finding that licensee was "owner" under section 117).

35. But see *Triad Sys. Corp. v. Southeastern Express Co.*, 64 F.3d 1330 (9th Cir. 1995) (rejecting fair use under nearly identical facts).

36. See, e.g., Boyle, *supra* note 22, at 87 (noting in his survey of the literature at least 10 articles criticizing *MAI*, and no more than one arguing that it was correctly decided); Lemley, *supra* note 14, at 557 n.63 (listing articles). But see I. Trotter Hardy, *Computer RAM "Copies": Hit or Myth? Historical Perspectives on Caching As a Microcosm of Current Copyright Concerns*, 22 U. DAYTON L. REV. 425, 452-55 (1997) (arguing that courts are properly interpreting "copy" to extend to "access" or "use" of digital copies).

37. Many interesting real-world analogies have been drawn in an attempt to shed light on the novel character of RAM copies. See, e.g., Ira L. Brandriss, *Writing in Frost on a Window Pane: E-Mail and Chatting on RAM and Copyright Fixation*, 43 J. COPYRIGHT SOC'Y 237 (1996) (writing in the sand, arranging scrabble tiles); Pamela Samuelson, *The U.S. Digital Agenda at WIPO*, 37 VA. J. INT'L L. 369, 382 n.75 (1997) (holding a mirror up to a book) (citing Pamela Samuelson, *The NII Intellectual Property Report*, Comm. ACM, Dec. 1994, at 21).

38. *MAI* of course limited such use through a license with the user. Thus, *MAI* presumably had a cause of action against the user for permitting Peak to use its software in a manner that violated the terms of the license.

difficult to see why, as a policy matter,³⁹ copyright law should be concerned with preventing RAM copies.⁴⁰

Commentators have also criticized the legal sources that the *MAI* court relied upon.⁴¹ As the court itself noted, none of the cases it cited dealt expressly with the creation of copies in a computer's RAM. Rather, they dealt with the much different context of copies embedded in computer ROM or magnetic storage (i.e., disk), which exist in a relatively more permanent state. In addition, the legislative history behind the 1976 Act gives no indication that Congress ever intended that RAM copies be considered sufficiently fixed to trigger the reproduction right. In fact, a House Report points in the opposite direction: "[T]he definition of 'fixation' would exclude from the concept purely evanescent or transient reproductions such as those . . . captured momentarily in the 'memory' of a computer."⁴² The *MAI* court did cite, in a footnote, language from the CONTU Final Report, which, in the course of recommending other changes to the 1976 Act, asserted that under then-existing copyright law, "[t]he introduction of a work into a computer memory would, consistent with the law, be a reproduction of the work, one of the exclusive rights of the copyright proprietor."⁴³ As numerous commentators have pointed out, however, this statement is of limited value, as it is inconsistent with prior authoritative legislative history, may well be an inaccurate statement of existing law, and has no authoritative

39. Indeed, the result in *MAI* raises a number of antitrust concerns. See *MAI*, 991 F.2d at 524.

40. The result in *MAI* may have been influenced by the unique posture of the case, involving the use of the software by a third party who competed with *MAI* in offering service. See Nimmer, *supra* note 13, at 10.

41. In addition to these criticisms, commentators have also argued that (1) the court erred in applying section 117; (2) the conduct was privileged under fair use, which the court failed to consider; and (3) *MAI*'s actions amounted to copyright misuse. See Boyle, *supra* note 22, at 92.

42. H.R. REP. NO. 94-1476, at 53 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5666.

43. NATIONAL COMMISSION ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS, Final Report 23 (1978).

weight of its own because Congress did not rely on it to enact any subsequent changes in the statute.⁴⁴

Despite the wealth of criticism, the result in *MAI* seems to be gaining support. The holding has since been adopted by nearly every federal court that has addressed the issue.⁴⁵ Another panel of the Ninth Circuit substantially followed the reasoning laid out in *MAI* in a case with substantially similar facts involving a third party who serviced and maintained computers leased out by the plaintiff.⁴⁶ This panel furthermore considered and rejected a fair use defense, holding that the RAM copies were not privileged, largely because of the commercial purpose of those servicing the computers, as well as the potential harm to the plaintiff's market for maintenance and service of its computers.⁴⁷ A panel of the D.C. Circuit has also adopted the rule in *MAI*, in *Stenograph L.L.C. v. Bossard Associates, Inc.*⁴⁸ In that case, the defendant purchased unauthorized copies of the plaintiff's expensive stenographic software at below market prices from one of the plaintiff's employees. Following *MAI*, the panel held that the defendant's subsequent use of that software resulted in the creation of RAM copies of the software, thereby infringing upon the plaintiff's exclusive right to reproduce.⁴⁹ Separate panels of the Fifth and Seventh Circuits have also adopted the result in passing.⁵⁰ Thus, even in the face of substantial criticism, the rule laid out by *MAI* appears to be gaining a foothold in the courts.⁵¹

44. See Boyle, *supra* note 22, at 92.

45. See cases cited *supra* note 12; see also *Stenograph L.L.C. v. Bossard Assocs., Inc.*, 144 F.3d 96 (D.C. Cir. 1998) (citing *MAI*); *Religious Tech. Ctr. v. Netcom On-Line Communication Servs., Inc.*, 907 F. Supp. 1361 (N.D. Cal. 1995) (same); *Advanced Computer Servs., Inc. v. MAI Sys. Corp.*, 845 F. Supp. 356 (E.D. Va. 1994) (same).

46. See *Triad Sys. Corp. v. Southeastern Express Co.*, 64 F.3d 1330 (9th Cir. 1995).

47. This last observation has come under particular criticism, because it is not at all clear that this interest in a connected market (instead of the primary market for the work itself) is a relevant one for copyright purposes. See Nimmer, *supra* note 13, at 54.

48. 144 F.3d 96 (D.C. Cir. 1998).

49. This case presents a clear example of the way in which digital copies are treated differently from physical copies. If the copy in question had been a physical book, then the defendant would clearly have had the right to read the book as many times as he or she wanted, even if it were sold without authorization from the copyright owner.

50. See *DSC Communications Corp. v. DGI Techs., Inc.*, 81 F.3d 597, 600 (5th Cir. 1996); *NLFC, Inc. v. Devcom Mid-America, Inc.*, 45 F.3d 231, 235 (7th Cir. 1995).

51. In both *MAI* and *Stenograph*, it seems relatively clear that the particular facts of the cases had an impact on the ultimate decisions and on the doctrinal moves necessary to reach

Furthermore, the result in *MAI* received a substantial boost through the Clinton administration's wholesale adoption of the *MAI* decision as settled law and its heavy reliance on it as a basis for subsequent copyright legislation and as a framework for its Internet copyright policy as a whole. In 1995, a Working Group appointed by the Clinton administration issued a White Paper that set forth a proposed framework for adapting intellectual property rights to the online environment, what the White Paper called the "National Information Infrastructure" (NII).⁵² Citing the *MAI* decision, the White Paper asserted that it has "long been clear under U.S. law" that RAM copies of copyrighted works, as well as any other incidental copies made during the transmission of such works through the Internet, implicated the copyright owner's exclusive right of reproduction.⁵³ The White Paper then went on to suggest "minor clarification[s] and limited amendment[s]" to copyright law that would merely reinforce the settled view.⁵⁴

Reflecting the view of the White Paper, the result in *MAI* now appears to have received legislative affirmation in the recently enacted DMCA. Enacted by Congress in 1998, the DMCA represents Congress's attempt to address some of the perceived challenges facing copyright law as a result of the advent of digital technology.⁵⁵ Inserted among the more attention-grabbing

the decision. In *MAI*, the court was very likely influenced by the fact that the defendant was providing maintenance services that competed directly with services provided by the copyright owner, and thus appeared to be, in some sense, free-riding on the plaintiff's copyright. And in *Stenograph*, the court was very likely influenced by the clearly improper (and likely illegal) actions on the part of the plaintiff's employee in selling to the defendant copies of software that were not authorized for sale. Thus, in both cases, the courts could be seen as stretching copyright law to reach the desired result. However, this does not change the fact that copyright law has now been stretched, and subsequent decisions appear to be reinforcing that stretch.

52. See WHITE PAPER, *supra* note 10.

53. *Id.* at 64.

54. *Id.* at 17, 211-20.

55. In particular, the DMCA makes it an infringement to circumvent technological measures used to prevent copyrighted works from being copied—i.e., copy-protection mechanisms. See 17 U.S.C. § 1201 (Supp. V 1999). The DMCA also makes it an infringement to tamper with "copyright management information," information that a copyright owner attaches to a copy of a work that includes such bits of information as the identity of the owner of the copyright, how to contact the owner, terms of use, etc. *Id.* § 1202. The DMCA contains a number of narrow exemptions to these provisions. See, e.g., *id.* § 1201(d)-(j) (including exemptions for nonprofit libraries and educational institutions, law enforcement, reverse engineering, encryption research, and security testing). Finally, the DMCA contains

provisions of the DMCA is a small provision amending section 117 of the Copyright Act to overrule legislatively the specific result reached by the Ninth Circuit in *MAI*.⁵⁶ That provision, the Computer Maintenance or Repair Copyright Exemption, carves out a specific exception that allows third-party computer maintenance companies to run software residing on a given machine for purposes of repairing the computer:

Notwithstanding the provisions of Section 106, it is not an infringement for the owner or lessee of a machine to make or authorize the making of a copy of a computer program if such copy is made solely by virtue of the activation of a machine that lawfully contains an authorized copy of the computer program, for purposes only of maintenance or repair of that machine⁵⁷

Yet, in reaching this result, Congress gives added support to *MAI*'s holding that RAM copies are copies for the purposes of the Copyright Act. The provision, by its very terms, assumes that a copy "made solely by virtue of the activation of a machine"⁵⁸ is a copy for the purposes of the Copyright Act (else, why the exception?). Although Congress, in the legislative history behind this provision, did not purport to change the underlying law regarding the scope of the right to control reproduction,⁵⁹ the provision itself suggests Congress was at least sufficiently concerned to enact a specific provision guarding against the result. Thus, in cases arising after the enactment of the DMCA, copyright owners will be able to draw on additional support for the argument that RAM copies are copies for the purposes of the Copyright Act.

B. Implications and Questions

Driving the sharp criticism of the result in *MAI* is a broader concern that the result drastically and unthinkingly shifts the

rather extensive provisions insulating Internet service providers (ISPs), under certain circumstances, from liability for carrying infringing material. *See id.* § 512.

56. *See id.* § 117(c).

57. *Id.*

58. *Id.*

59. *See* H.R. CONF. REP. NO. 105-796, at 76, *reprinted in* 1998 U.S.C.C.A.N. 639, 652.

existing balance of rights in copyrighted works from users to copyright owners in the digital environment. Because computer software is copied into RAM as a necessary incident to the use of that software, the decision in *MAI* effectively gives copyright owners the right to control any and all uses of the software, unless such uses are subject to some statutory privilege.⁶⁰ In addition, nothing in the reasoning of the opinion prevents it from being extended from computer software to any and all works stored in digital form, such as images, text documents, sound recordings, and motion pictures.⁶¹ Indeed, several federal courts have extended the rule in *MAI* to just such digital works.⁶² In accessing a digital work through a computer, a copy is necessarily made in the computer's RAM. Temporary copies are also made in numerous computers whenever a work is transmitted through the Internet. Taken to its logical conclusion, *MAI* would give copyright owners broad control, at least in theory, over nearly all computer-aided uses of copyrighted works encoded in digital form.⁶³ Jessica Litman has in fact suggested that the rule in *MAI* effectively restricts the user's "right to read" digital works.⁶⁴

To appreciate the potential impact of *MAI*, it may help to consider a few concrete examples. First, as indicated above, an individual's ability to access or use a digital copy of a copyrighted work might be quite restricted under *MAI*. Say, for example, that a friend hands you a disk containing a copy of an interesting article she read and downloaded. Unbeknownst to you, the copy is an

60. Section 117 of the Copyright Act is just such a privilege, for computer software.

61. Copies of these types of works, unlike software, do not fall within the scope of section 117.

62. See *Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.*, 75 F. Supp. 2d 1290 (D. Utah 1999) (text on a website); *Tiffany Design, Inc. v. Reno-Tahoe Speciality, Inc.*, 55 F. Supp. 2d 1113 (D. Nev. 1999) (images); *Marobie-FL v. National Ass'n of Fire Equip. Distribs.*, 983 F. Supp. 1167 (N.D. Ill. 1997) (clip art); *Religious Tech. Ctr. v. Netcom On-Line Communication Servs., Inc.*, 907 F. Supp. 1361 (N.D. Cal. 1995) (text).

63. See Litman, *supra* note 3, at 37 ("Today, making digital reproductions is an unavoidable incident of reading, viewing, listening to, learning from, sharing, improving, and reusing works embodied in digital media.").

64. Litman, *supra* note 13, at 40 ("A handful of recent interpretations of the statute, however, insist that one reproduces a work every time one reads it into a computer's random access memory. For all works encoded in digital form, any act of reading or viewing the work would require the use of a computer, and would, under this interpretation, involve an actionable reproduction.").

unauthorized copy of the article.⁶⁵ By inserting the disk into your computer and accessing the article to view it, you are creating a digital copy of that article in the RAM of your computer. The act of viewing the article would, under *MAI*, infringe upon the copyright owner's exclusive right to reproduce the copy. Or, to take another example, say that your friend, instead of giving you a copy, told you where to access that article online. Again unbeknownst to you, the owner of the website on which the article resides did not obtain authorization to make it available on the Internet. In the process of browsing the article, a copy is created in the RAM of your computer, once again implicating the reproduction right under *MAI*.⁶⁶ In each case, you would be liable for copyright infringement under the rule laid down by *MAI*, unless you could argue some kind of statutory privilege.⁶⁷ By contrast, there is no current action against someone who reads an infringing physical copy of a copyrighted work.

Although the above examples might appear fanciful and of interest only theoretically (after all, who would sue?), cases are in fact beginning to appear under precisely such circumstances. For example, in *Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.*,⁶⁸ a federal district court held that browsing a website containing infringing material could constitute copyright infringement. In that case, the Utah Lighthouse Ministry sued a website that contained links to a site that contained an unauthorized copy of the Mormon Church Handbook of Instructions.⁶⁹ The court found the website liable for contributory infringement for directing individuals to the site.⁷⁰ In so finding, the court expressly (and necessarily) held that the individuals who were directed to the site, and who browsed the unauthorized copy, were

65. Note that copyright liability does not depend on awareness that the activity is infringing, although "innocent" infringement may limit the amount of damages. See 17 U.S.C. § 504 (1994 & Supp. V 1999).

66. Browsers also often create copies of the work in a "cache" located on the computer's hard drive. Such copies more clearly implicate the reproduction right, even absent *MAI*, because they are quite clearly fixed. See *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 260 (5th Cir. 1988); *Apple Computer, Inc. v. Formula Int'l, Inc.*, 594 F. Supp. 617, 321 (C.D. Cal. 1984). See generally Hardy, *supra* note 36.

67. I discuss these privileges in more detail below.

68. 75 F. Supp. 2d 1290, 1295 (D. Utah. 1999).

69. See *id.* at 1292.

70. See *id.* at 1292-95.

committing direct infringement when their computers created copies of the work in the RAM of their computers.⁷¹ Thus, under the rule in *MAI*, unauthorized browsing could constitute infringement.

Second, transmission of digital documents over the Internet could well result in multiple infringements. When a digital work is sent over the Internet, numerous temporary copies are made in the many computers on the Internet through which the work passes. So, if I send a copy of a work to a friend, temporary copies will be made on the computers of my Internet service provider (ISP), on various routers on the Internet, on my friend's service provider, and on my friend's computer. Each of these copies could potentially result in infringement under *MAI*. Thus, in the second example offered above, by pointing my browser at a certain web page, I request that the contents of the article be transmitted to my computer. Copies of portions of the article will be transmitted temporarily through many different computers on the Internet on their way to my computer.⁷² Thus, under the rule in *MAI*, temporary copies made in the transmission of a digital copy over the Internet might potentially give rise to liability. This unhappy consequence of the *MAI* decision was in fact expressly addressed by Congress in the portions of the DMCA that provide certain safe harbors for ISPs that satisfy certain criteria.⁷³ Accordingly, it is now of comparably less concern, at least for those who fall within the safe harbor. The DMCA's response to this issue, however, again reflects its implicit acceptance of the result in *MAI*.

71. See *id.* at 1294.

72. See Lemley, *supra* note 14, at 550.

73. See, e.g., 17 U.S.C. § 512(a) (Supp. V 1999), which notes that a service provider is not liable if:

- (1) the transmission of the material was initiated by or at the direction of a person other than the service provider;
- (2) the transmission, routing, provision of connections, or storage is carried out through an automatic technical process without selection of the material by the service provider;
- (3) the service provider does not select the recipients of the material except as an automatic response to the request of another person;
- (4) no copy of the material made by the service provider . . . is maintained on the system or network in a manner ordinarily accessible to anyone other than anticipated recipients, and . . . for [no] longer period than is reasonably necessary for transmission . . . ; and
- (5) the material is transmitted through the system or network without modification of its content.

Third, the first sale doctrine is essentially eliminated, or at least greatly limited, under the holding of *MAI*. Whereas, in the physical world, I could transfer, lend, or sell a physical copy to another person, in the digital environment, each of these actions would result in the creation of a copy, both in the RAM of my computer and on the recipient's computer, thus implicating the reproduction right. Therefore, if I wish to sell my digital copy of an article that I have legitimately downloaded (and paid for) from the Web by transmitting the article to the purchaser by e-mail, I will be creating a copy of that article in the RAM of my computer, on various computers throughout the Internet, and ultimately on the purchaser's computer. Similarly, copying the article onto a disk and handing her the disk will also result in numerous copies, again in my RAM, on the disk, and in the RAM of the purchaser's computer when she views it. Deleting my copy shortly after copying it will not change the fact that additional copies have been created.⁷⁴

These are just a few examples of the way in which, as a result of the ubiquitous copying that attends digital copies, copyright owners may have substantially increased control over the use and disposition of digital copies under the rule of *MAI*.⁷⁵ Indeed, whereas physical copy owners retain broad residual rights over their copies as a result of physical property laws, digital copy owners appear to have hardly any rights at all, because nearly every use involves copying. Although possession is usually thought to be nine-tenths of the law, it appears to amount to much less in the digital environment. And perhaps the most disturbing feature of such a shift in the balance of rights and access is the fact that this shift results almost entirely from an accident of technology, rather than from any careful or thoughtful consideration of copyright policy. If the result in *MAI* is taken seriously, copyright

74. Note that the problem exists even in the absence of the rule laid down by *MAI*, because in this case, a second, permanently fixed copy is created (i.e., the copy on your friend's hard drive or disk). The rule in *MAI* merely exacerbates the problem.

75. I have here focused almost exclusively on the right to reproduce. Other rights in the bundle of copyright owner rights might well be implicated in many of the above examples. For example, the right to distribute copies to the public and the right to display the work publicly are likely implicated in some of the above examples. See 17 U.S.C. § 106 (1994 & Supp. V 1999); see also Lemley, *supra* note 14, at 550-67 (discussing how browsing or transmitting information over the Internet can potentially violate every right listed in the Copyright Act). I will consider the interaction of these various rights in more detail below.

owners will be given potentially greater control over the uses of their works simply because computer technology happens to create temporary and incidental copies of digital works in the process of accessing and transmitting them, and not because such an extension of rights furthers the policies underlying copyright law.⁷⁶ In particular, commentators argue that the *MAI* decision, if taken seriously, would greatly increase the potential scope of liability of nearly all participants on the existing Internet, as temporary copies of documents are constantly made as a necessary incident to transmission of, and access to, documents through the Internet.⁷⁷

In fact, however, the implications of *MAI*, though troubling, are likely somewhat less radical than they might at first appear. First, despite the trend in the case law and the recent enactment of the DMCA,⁷⁸ it is not completely clear that the decision in *MAI* is settled law. *MAI* represents the rule in only two circuits (four, if you count dicta), and rests on a sufficiently fragile legal foundation that it could be overturned by subsequent judicial or legislative developments.⁷⁹ Moreover, a few decisions from other circuits have pointed the other way.⁸⁰ Thus, despite the added support conferred by the DMCA and several district court decisions, the courts will ultimately decide whether the rule is in fact well settled (though, admittedly, the trend suggests that *MAI* currently has the bulk of the support). Second, even if the result in *MAI* survives, the net impact of *MAI* on the balance of rights between copyright owners and users cannot accurately be assessed without careful consideration of other avenues of escaping liability, such as fair use and implied licenses.⁸¹ Such avenues of escaping liability help

76. See Sean R. Calvert, Note, *A Digital World Out of Balance*, 13 SANTA CLARA COMPUTER & HIGH TECH. L.J. 545, 553-55 (1997) (discussing the ramifications of allowing copyright owners to control the temporary incidental copies created through Internet transmission).

77. See *Religious Tech. Ctr. v. Netcom On-Line Communication Servs., Inc.*, 907 F. Supp. 1361, 1369 (N.D. Cal. 1995) (noting the potential for "unreasonable liability").

78. See *supra* notes 45-55 and accompanying text.

79. This is not, however, to underestimate the potentially adverse consequences resulting from legislation based on an inaccurate assumption that the rule in *MAI* is in fact well settled.

80. See, e.g., *Apple Computer, Inc. v. Formula Int'l, Inc.*, 594 F. Supp. 617 (C.D. Cal. 1984).

81. See Fred H. Cate, *The Technological Transformation of Copyright Law*, 81 IOWA L. REV. 1395, 1402-10 (1996) (reviewing possible defenses); Lemley, *supra* note 14, at 567

ameliorate some of the most disturbing implications of *MAI*, although, as we see, they do not go far enough.

Indeed, some notion of implied license may excuse many temporary copies of copyrighted works, such as those created in RAM when a computer loads a web page. By making the page accessible on the Web, the author almost certainly grants those who access the page an implied license to create a RAM copy, and any other technologically incidental copies, when they view it.⁸² Similarly, in sending an e-mail, an author may grant the recipient an implied license to copy the text of the e-mail in a reply or when forwarding it to a third person (though this is substantially less certain). Finally, in selling a piece of software to a user, the seller implicitly (if not expressly) licenses the user to make any copies necessary to make use of the program.⁸³ Many current problems may thus be settled through creative application of implied licenses and through careful examination of the customs and conventions that exist in various online environments.

Implied licenses are limited, however, in a number of ways. First, implied licenses can be expressly disavowed by the copyright owner.⁸⁴ Thus, the copyright owner still has potentially extensive control over how copies of the work are used.⁸⁵ Second, and perhaps more problematically, implied licenses can be granted only by the rightful copyright owner.⁸⁶ Implied license, therefore, would be no defense to the browsing or use of an unauthorized copy of a work.⁸⁷

(acknowledging these avenues, but expressing doubt about their practical significance); Nimmer, *supra* note 13, at 51 (arguing that these avenues in fact take care of many of the concerns raised by *MAI*).

82. See Kara Beal, Comment, *The Potential Liability of Linking on the Internet: An Examination of Possible Legal Solutions*, 1998 BYU L. REV. 703, 723-24.

83. Thus rendering 17 U.S.C. § 117 largely unnecessary. If anything, the enactment of section 117 has had the effect of casting doubt on the argument that fair use or implied licenses operate to privilege the type of use specified in section 117.

84. See Lemley, *supra* note 14, at 567; see also Wendy J. Gordon, *An Inquiry Into the Merits of Copyright: The Challenges of Consistency, Consent, and Encouragement Theory*, 41 STAN. L. REV. 1343 (1989) (noting that a copyright owner has the ability to forbid others from using her words in certain ways).

85. Indeed, if the default rule is that access is infringement, then implied licenses permit copyright owners to impose conditions on access that might not be enforceable under ordinary contract law principles.

86. See Lemley, *supra* note 14, at 567.

87. Even if implied licenses did in fact take care of many of the potential problems raised by *MAI*, they provide no theoretically satisfying answer to the question posed by *MAI*. The

For example, say that a person incorporates another person's copyrighted image in her web page, without having obtained permission to do so. By browsing that image, a visitor creates a copy of that image in the RAM of his or her computer. No implied license operates to privilege the use, however, because the owner of the copyright is not responsible for making it available on the Web.⁸⁸ Similarly, if a friend sends you an unauthorized copy of a work by e-mail (say, for example, a Far Side or Dilbert cartoon), viewing that work will not be subject to any implied license from the copyright owner.

Fair use potentially provides a better basis for such situations,⁸⁹ because the defense does not depend on any relationship (express or implied) between the author and user. Under the fair use doctrine, many RAM or other temporary copies of digital works might well be privileged.⁹⁰ For example, the temporary copies made on many computers on the Internet as an incident to sending a work over the Internet would, in all likelihood, constitute fair use, even absent the specific provisions laid down by the DMCA.⁹¹ They typically are not, by themselves, substitutes for the original work. Similarly, though perhaps a closer call, accessing even an unauthorized copy of an image or other document on one's hard drive or on someone else's website might constitute fair use.⁹² Although the Ninth Circuit in *Triad Systems Corp. v. Southeastern*

potential existence of licensing does not help answer the underlying question of whether the copyright owner properly possesses a right that requires licensing. Thus, for example, the sale of a book could be interpreted as conferring an unlimited implied license to read that book. This says nothing, however, about whether the copyright owner possesses (or should possess) any right to control reading.

88. See, e.g., *Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.*, 75 F. Supp. 2d 1290, 1295 (D. Utah 1999).

89. See 17 U.S.C. § 107 (1994); see also Lemley, *supra* note 14, at 566 (maintaining that fair use is a good defense in the context of computer networks).

90. See Keith Kupferschmid, *Lost in Cyberspace: The Digital Demise of the First-Sale Doctrine*, 16 J. MARSHALL J. COMPUTER & INFO. L. 824, 841 n.60 (1998) (arguing that "[i]n many cases, temporary, incidental reproductions, such as when copies are made in RAM when browsing the Internet will constitute a fair use").

91. See Lemley, *supra* note 14, at 566.

92. See, e.g., *Religious Tech. Ctr. v. Netcom On-Line Communication Servs., Inc.*, 907 F. Supp. 1361, 1378 n.25 (N.D. Cal. 1995) (noting that browsing is likely fair use). But see *Triad Sys. Corp. v. Southeastern Express Co.*, 64 F.3d 1330, 1336 (9th Cir. 1995) (rejecting fair use defense).

Express Co. held that the making of a RAM copy was not fair use,⁹³ the commercial setting of that case likely played a substantial part in the decision, and more private access to digital works might well be privileged. Similarly, it is possible that incidental copies created in the transfer of a digital copy might be privileged if the original copy is quickly deleted, thereby preserving functionally a sort of first sale doctrine.⁹⁴ The courts would be required to flesh out the precise outlines of the fair use defense in these numerous situations. Each of these defenses, however, at least suggests that the direst predictions about the *MAI* decision need not come to pass.⁹⁵ Users' access to digital works may well be quite robust, even under the rule laid down by *MAI*.⁹⁶

Nevertheless, fair use, too, has substantial limitations as a mechanism for tempering some of the potentially radical effects of the rule in *MAI*. Most obviously, fair use is an affirmative defense and may require costly litigation before a given use is recognized as fair.⁹⁷ Thus, under the rule in *MAI*, once the copyright owner has established that the defendant accessed the work, the burden rests upon the defendant to establish the defense affirmatively.

93. 64 F.3d 1330, 1336 (9th Cir. 1995).

94. See David L. Hayes, *Advanced Copyright Issues on the Internet*, 7 TEX. INTELL. PROP. L.J. 1, 98 (1998). Hayes maintains:

One could readily argue that in such instances the first sale doctrine should apply by analogy . . . so long as the purchaser deletes his or her original copy from storage, because in that instance, as in the case of traditional distributions of physical copies, no more total copies end up in circulation than were originally sold by or under authority of the copyright owner.

Id.

95. Moreover, one might well ask whether the uncertainty that inevitably attends case-by-case adjudication in an area of rapid change is preferable to the certainty offered by premature legislation.

96. Both Mark Lemley and Jessica Litman have expressed concern about the ability of fair use to provide an adequate safe harbor for many of these technologically incidental copies, pointing to the cost, difficulty, and uncertainty of the defense. See Lemley, *supra* note 14, at 567; Litman, *supra* note 3, at 21.

97. See Lemley, *supra* note 14, at 566 (noting that fair use is only a defense and defendants face a strong evidentiary burden). Perhaps more likely, infringement proceedings would rarely be brought (and even more rarely defended) against many of the personal and distributed uses discussed above, and the status of the particular use would remain substantially unclear. For example, the fair use status of home taping of recorded music was never definitively settled in the courts, and was only expressly privileged, in the end, through legislative action. See Audio Home Recording Act of 1992, Pub. L. No. 102-563, 106 Stat. 4237 (codified at 17 U.S.C. § 1001 (1994)).

Furthermore, the fair use defense is a notoriously fuzzy and complex privilege, requiring the case-by-case balancing of multiple statutory factors, often resulting in outcomes that are hard to predict.⁹⁸ In particular, the opinion in *Triad* suggests that whether accessing a digital work is fair use may depend to a large extent on the particular circumstances surrounding the use. Thus, substantial uncertainty will likely attend many of the uses mentioned above, and such uncertainty can have a chilling effect on behavior we might find desirable. Even if we might believe rather strongly that a given use (say, viewing a copy of a Far Side cartoon that you received in your e-mail) is fair use, a degree of uncertainty will continue to exist concerning that use. Put more generally, even if the scope of users' rights in the digital environment is, in the end, roughly and practically equivalent to the rights in the physical environment, there may well be reasons to be concerned about the way in which MAI shifts these very basic users' "rights" (for example, to read, transfer, etc.) from a clearly privileged realm into the much fuzzier and contextual realm of fair use.⁹⁹ Whereas in the hard-copy world, I had a clear right to read my book as many times as I wished, in the digital world, my right to read my digital copy will depend on a number of factors, such as how much of it I read, whether I am reading it for a commercial purpose, the impact on the market, etc.¹⁰⁰ Or, to put it more simply, do we want reading and accessing a digital work to be a matter of fair use?

98. See 17 U.S.C. § 107 (1994); Steven D. Smit, Esq., "Make a Copy for the File . . .": *Copyright Infringement By Attorneys*, 46 BAYLOR L. REV. 1, 9 (1994) (noting "the Copyright Act adopted [a] 'fuzzy' equitable test" relying on "four case-specific factors to be considered in determining whether an author's work is being used fairly by another").

99. Moreover, fuzzy rules may tend to advantage parties that have greater resources, and to the extent one is concerned about distributional implications, such a change in the nature of the right may be of concern.

100. As a general matter, most economic analyses of property rights regimes support establishment of clear property rights entitlements, in order to facilitate market transactions, reduce the potential for dispute over such rights, and lower the costs of adjudicating such disputes, if brought. See, e.g., Guido Calabresi & Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972); Carol Rose, *Crystals and Mud in Property Law*, 40 STAN L. REV. 577 (1988). But see Ian Ayres & Eric Talley, *Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade*, 104 YALE L.J. 1027, 1029 (1995) (exploring a different way of dividing an entitlement); Dan L. Burk, *Muddy Rules for Cyberspace*, 21 CARDOZO L. REV. 121, 170 (1999) (suggesting that muddy rules may in fact be preferable under certain circumstances).

Finally, individuals might take some comfort in lack of enforcement of the rights set forth in *MAI*. In many cases, copyright owners will have no idea whether an individual is browsing an unauthorized copy of their work or loading a copy into RAM, and, even if they are aware, may not have sufficient incentives to pursue such individuals if the damages are minimal. Indeed, if some of the infringers are innocent infringers, then copyright owners would essentially be limited to nominal damages and injunctive relief, and would not be entitled to statutory damages, further reducing the incentive to sue.¹⁰¹ The cases that have been brought so far suggest rather unusual circumstances. At the same time, however, cases are beginning to arise in the more common circumstances of Web browsing and access to software.¹⁰² Moreover, there may well be reason to be troubled by a rule that relies too heavily on underenforcement (along with implied licenses and fair use defenses) to mitigate undesirable and irrational results. If such escape hatches are frequently necessary to make the underlying entitlement reasonable, then it seems as though the original allocation of the entitlement should be called into question.

Even more broadly, regardless of whether the ultimate effects of the rule announced in *MAI* are as dire as predicted, *MAI* raises a fundamental question about what, as a matter of copyright law policy and purposes, the appropriate balance of rights between copyright owners and the owners of digital copies should be. That is, the ultimate impact of *MAI* may or may not drastically shift the balance of rights and access between copy owners and copyright owners.¹⁰³ Neither *MAI* nor many of the commentators, however, expressly address the reasons for supporting or resisting such a shift.¹⁰⁴ As noted above, neither the *MAI* court nor the White Paper expressly addresses the policy implications of their rote application of the terms of the Copyright Act to the new circumstances surrounding digital technology.¹⁰⁵ Equally troubling, however, is

101. See 17 U.S.C. § 1203 (Supp. V 1999).

102. See, e.g., *Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.*, 75 F. Supp. 2d 1290 (D. Utah 1999).

103. See Calvert, *supra* note 76, at 554-55 (maintaining that *MAI* could upset the traditional balance between users and copyright owners).

104. But see *id.* (arguing against this shift because it could grant owners substantially greater power, enabling them to control both public and private displays of works).

105. But see Boyle, *supra* note 22, at 89-90.

many of the commentators' failure to justify adequately why it is so important to preserve the existing distribution of rights that exists with respect to physical copies. Rather, it is largely assumed that the ability of copy owners to access, read, transfer, and lend copies is an important part of copyright law worth preserving.

The issue raised in *MAI* thus presents us with the opportunity to examine the role these incidents of copy ownership play in current copyright law. As noted above, up to now we have not had much occasion to examine the status of these incidents of copy ownership, because their existence and status have never really been questioned in the world of physical copies. Of course people have a right to read books in their possession. (What could be more obvious?) The advent of digital technology, however, now forces us to examine these questions as these incidents of copy ownership come into conflict with the underlying right to reproduce. Are these incidents of physical copy ownership an inherent part of the existing copyright balance? Are they an accident of our current print-based technology? Or is the answer more complicated than that? Only after these more fundamental questions are addressed does it make sense to think about how, if at all, to translate these "rights" into the digital environment.¹⁰⁶

C. Framework for Analysis

To begin to answer these questions, we need to examine and understand the source and justification for the existing distribution of rights and access in physical copies and, in particular, the status of the ability of the owner of a physical copy to access, read, lend, and sell his or her copy of a copyrighted work. Such a consideration is necessary because straightforward doctrinal legal analysis is unlikely to yield a satisfactory answer to the puzzles presented by digital copies. Although literal application of the terms of the statute is possible, as *MAI* demonstrates, the novel challenges presented by digital technology give reason at least to question whether such application coincides with the underlying policies and

106. Indeed, a strong argument can be made that the lack of express justification for these physical incidents of copy ownership explains, in part, the ease with which the *MAI* court and the DMCA gloss over such incidents.

purposes of the Copyright Act.¹⁰⁷ After all, as discussed above, it is clear that Congress in 1976 gave little or no thought to the specific results that flow from the *MAI* decision. Accordingly, it is fair to ask whether those results are in fact consistent with the broader policies underlying the Copyright Act.¹⁰⁸ Indeed, consideration of such broader policy issues is characteristic of the constant judicial attempts to grapple with the implications of new technologies in copyright law as a whole, in the absence of clear legislative guidance.¹⁰⁹

In the following Parts of this Article, I expand the scope of the discussion to examine what theoretical justifications might provide support for the incidents of copy ownership. I start by setting forth and charting the development of the familiar bundle of rights the Copyright Act confers upon the authors of copyrighted works. I continue on to give a descriptive account of what the Copyright Act does not give to authors, at least with respect to physical copies, whether through omission, through gaps in the structure of the statute, or expressly in the form of legislatively created exceptions to the bundle of copyright rights. Having descriptively set forth this distribution of rights, I then look at various possible normative justifications for this distribution drawn from the primary theoretical frameworks developed to explain copyright law in general. In particular, I focus on whether various economic and noneconomic theories can justify the specific distribution of rights between copy owners and copyright owners.

107. See Boyle, *supra* note 22, at 89-90 (discussing how *MAI* contradicts the proposed goals of copyright law because it restricted access to works, rather than promoting dissemination of works).

108. See *id.* Adherents to certain theories of statutory interpretation might object that such an inquiry is inappropriate, and that the *MAI* panel's literal application of the plain terms of the statute is entirely proper. See generally ANTONIN SCALIA, A MATTER OF INTERPRETATION: FEDERAL COURTS AND THE LAW (1997). This is not the place to engage in a lengthy discussion of differing theories of statutory interpretation. Suffice it to say that, even apart from the significant problems that attend such theories, they are particularly inapt in situations such as this, which deal with areas of significant technological change and corresponding congressional inability to respond to such change. See generally WILLIAM N. ESKRIDGE, JR., DYNAMIC STATUTORY INTERPRETATION (1994) (arguing that statutory interpretation is dynamic and that originalist theories are irrelevant).

109. See, e.g., *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984) (VCR); *American Geophysical Union v. Texaco, Inc.*, 60 F.3d 913 (2d Cir. 1994) (photocopying); *Williams & Wilkins Co. v. United States*, 487 F.2d 1345 (Cl. Ct. 1973) (photocopying).

Throughout this analysis, I frame the question in terms of what precisely the owners of a copy "own" when they purchase or otherwise acquire a physical copy of a copyrighted work. That is, after acquiring a copy, what can they do with it? This is a reversal of the usual copyright inquiry, which focuses primarily on what copyright owners own. Although this is a somewhat unconventional perspective, I believe this shift in perspective is valuable because it puts emphasis squarely on the issue with which we are concerned: the status of the ability of owners of physical copies to access, read, lend, rent, and sell copies in their possession. This approach avoids the danger, so clearly illustrated by *MAI*, of ignoring these features of copyright law by focusing exclusively on the rights of copyright owners. It may well be that, after all is said and done, what the owners of physical copies "own" is little more than an accident of technology, and that the *MAI* court is correct in holding that they own nothing more in the digital context. Adopting the copy owner's perspective, however, reduces the risk of arriving at this conclusion without a careful consideration of the policy interests behind it.

In adopting the perspective of the copy owner, I am also consciously avoiding the conventional copyright notion of a balance between copyright owners and "users." That is, I am not so much interested in the rights of users or consumers in the abstract as I am interested in the rights of one who has acquired possession of a given copy of a copyrighted work. Although this may seem a trivial distinction, it eliminates some of the conceptual confusion that has tended to surround some of the existing debate. Put more concretely, a potential problem with the decision in *MAI* is not that it does away with any abstract users' "right to read" or "right to access."¹¹⁰ No such abstract right exists in the physical world: I have no right to read or access a book locked up in a stranger's house, or shrink-wrapped in a bookstore, or held by a library of which I am not a member.¹¹¹ Rather, the potential problem is that *MAI* threatens the right to read or access a copy *that is in my possession*, that I "own" or have physical access to. The tension results from conflicts between copyright owner and copy owner, not users in the abstract.

110. Litman, *supra* note 13, at 40.

111. See Nimmer, *supra* note 13, at 44-45.

This is not to say that changes in the distribution of rights between copy owners and copyright owners may not have a global or systemic influence on the general degree of access enjoyed by users and consumers as a whole.¹¹² Nor is it to say that the global impact of any distribution of rights is not relevant to the proper distribution of rights. Indeed, as will be discussed below, a number of the proposals that call for a functional translation of the existing bundle of copy owner rights into the digital context rely implicitly on a desire to maintain some preexisting overall balance of incentives and access. Rather, my point is simply that these are two separate (though related) questions, which, as an analytical matter, warrant careful and separate consideration. As an initial matter, focusing on the copy owner places emphasis more squarely on the issue in question.

A few final words should be said on what the following analysis does not address. The analysis in the following sections focuses on a particular and rather highly focused question: what rights, if any, does one obtain when one acquires possession of a digital copy of a copyrighted work? That is, what can one do with that copy, simply as a result of one's possession of that copy?¹¹³ The analysis does not engage, at least expressly, in a discussion of the ability of copyright owners to protect their works through contract (that is, "shrink-wrap" licenses) or through technology.¹¹⁴ Even if such measures are used by copyright owners, underlying questions concerning what it means to own a digital copy will still have relevance, for example, in cases where third parties have acquired possession of digital

112. See, e.g., Niva Elkin-Koren, *Cyberlaw and Social Change: A Democratic Approach to Copyright Law in Cyberspace*, 14 CARDOZO ARTS & ENT. L.J. 215, 272 (1996) (discussing value of browsing books in a bookstore, or borrowing books from a library); Litman, *supra* note 13, at 31; Netanel, *supra* note 11, at 375. But see Nimmer, *supra* note 13, at 44.

113. The analysis is also less concerned with how one obtains such a copy. The manner in which a copy is obtained may have relevance with respect to the existence (or lack) of express or implied license. Moreover, the acquisition of a copy may itself involve potential liability. Copy acquisition issues distract attention from the core copyright question, however, which centers on the proper scope of prohibitions against unknown third parties who acquire copies. Once this question is settled, I will turn to consideration of the other issues.

114. Some commentators have predicted the demise of the sale of copies as the dominant method of content distribution. See Tom W. Bell, *Fair Use vs. Fared Use: The Impact of Automated Rights Management on Copyright's Fair Use Doctrine*, 76 N.C.L. REV. 557 (1998); Nimmer & Krauthaus, *supra* note 16.

copies of copyrighted works not subject to technological protection or licenses.¹¹⁵ (For example, consider how much unauthorized software, unencumbered by either contract or technology, currently exists). This is, after all, the salient feature of copyright law: it restricts the rights of unknown third parties with whom the copyright owner has no relationship.

Moreover, as the debate surrounding the White Paper has illustrated, our understandings about the default rules clearly inform how we deal with issues surrounding technological protection or other copyright "substitutes," such as shrink-wrap licensing.¹¹⁶ To the extent one adopts the view that nearly every use is a potential infringement, the desirability of licensing becomes ever greater. Indeed, licensing becomes almost a necessity in order to avoid ubiquitous infringement, and one might expect a perceived need to facilitate such licensing (as evinced, for example, in the DMCA¹¹⁷). Conversely, to the extent one adopts the view that certain uses are an inherent part of digital copy ownership and possession, the need for elaborate licensing provisions becomes less immediate. Rather, the burden is then placed upon the copyright owner to establish and enforce restrictions on use. Accordingly, in the next Part, I attempt to address first the underlying default rules that should be set by copyright law in the absence of licensing or technological protection. Only after consideration of this issue will this Article move on, in Part IV, to consider expressly some of the broader implications of the analysis for a number of these copyright "substitutes."¹¹⁸

115. In fact, the third-party scenario is in many ways the most interesting. Most interactions between author and copy purchaser pose relatively few practical or conceptual problems, because many uses can be resolved through licensing, whether express or implied. Given this, concerns about restricting a "right to read" are, in this context, probably exaggerated, as few individuals would purchase a copy of a digital work that they could not subsequently access. The problem becomes much more acute, however, when third parties acquire copies of digital works.

116. For example, the position adopted by the White Paper lends tremendous support to licensing, because it is the only way to use a digital work while avoiding infringement. Technological protection mechanisms lend support to licensing enforcement.

117. Specifically, the provisions protecting "copyright management information," information that is attached to copies of copyrighted works, indicating the author, date, terms of use, etc. 17 U.S.C. § 1202 (Supp. V 1999).

118. See Paul Goldstein, *Copyright and its Substitutes*, 1997 WIS. L. REV. 865 (1997). I am generally skeptical of the ability of copyright legislation to effect informed, large-scale change

II. OWNING PHYSICAL COPIES

Changing technology often forces us to examine issues that we had long taken for granted.¹¹⁹ This is both a burden and an opportunity—a burden for obvious reasons, and an opportunity because such a reexamination expands our perspective and offers us a chance to better understand the existing state of affairs. Until now, generally little attention has been paid to the question of what it means to possess a physical copy of a copyrighted work. Instead, the focus has been primarily on the bundle of rights copyright law confers on copyright owners. In many ways, this makes eminent sense. With respect to physical copies, copyright law places relatively few, and relatively specific, limits on how the owners of copies can use and dispose of such copies. Copy owners enjoy relatively broad residual “rights” with respect to their copies, simply by virtue of their ownership of physical personal property. In this Part of the Article, I reverse the perspective and examine these copy owner “rights” through the lens of copyright law. I lay out descriptively the existing balance of rights between copyright owners and copy owners, discuss ways in which the Copyright Act accounts for this balance, and track changes in this balance over time.

First, however, a note on terminology. Up to this point, I have been using “ownership” and “possession” rather interchangeably. However, the two terms are, of course, not synonymous: if you lend me a book, I possess it, but you own it. Let me be clear here that, throughout this Article, I am, strictly speaking, concerned about the rights that one acquires solely through possession of a digital copy, whether or not one owns it. That is, whether you acquired the digital copy of a Far Side cartoon through purchase, through

in copyright law as a whole. The last major revision of the Copyright Act, in 1976, took over 20 years and involved nearly unending negotiation among industry interest groups. See Litman, *supra* note 17, at 870-72. Amendments to the act since then have revealed a similar dynamic. See, e.g., Audio Home Recording Act of 1992, 17 U.S.C. §§ 1001-1010 (1994). The recent enactment of the DMCA and the Sony Bono Copyright Term Extension Act offer little encouragement on this front.

119. See generally Lawrence Lessig, *Constitution and Code*, 27 CUMB. L. REV. 1, 14-15 (1997) (noting the way in which technology allows for changes in the physical environment); Lawrence Lessig, *The Path of Cyberlaw*, 104 YALE L.J. 1743 (1995) (examining the regulation of new technology compared to established principles and practices).

unauthorized copying, through theft, or through a temporary loan from a friend, the salient feature is the fact that you now have possession of that copy. I use the terms "ownership" and "possession" interchangeably, however, for two reasons: first, because "owner" is sometimes less awkward a formulation than "possessor"; and second, because in the vast majority of situations involving digital copies, there will be no relevant distinction between the two. For example, if a friend sends me an unauthorized copy of a Gary Larson cartoon by e-mail and it now resides on my hard drive, I own the copy, the material object in which the work is embodied (that is, my hard drive). In later parts of this Article, however, I will expressly consider those special cases in which the two terms might diverge, and how such a divergence should be treated.

A. What Copy Owners Do Not Own

In examining what copy owners own, it is easier to start with what they do not own, because this is spelled out in rather fine detail in the Copyright Act. The central right in the copyright bundle of rights, and the main restriction on the copy owner's use of a particular copy, is, of course, the right to reproduce the copyrighted work, that is, the right to make copies.¹²⁰ More specifically, as illustrated in *MAI*, the owner of a particular copy of the work cannot "fix" that work in another copy. The reason for this is familiar and goes to the heart of the basic justification for U.S. copyright law.¹²¹ If owners of copies were permitted to reproduce copyrighted works, they could create, sell, and distribute additional copies of the work without incurring any of the costs associated with creating the work in the first place. The price of copies would thus be driven down to the marginal cost of reproducing the work,

120. See 17 U.S.C. § 106(1) (1994); see also *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339, 347 (1908) ("[I]t is evident that to secure the author the right to multiply copies of his work may be said to have been the main purpose of the copyright statutes."); GOLDSTEIN, *supra* note 3, § 5.1 (discussing the right to reproduce).

121. At least in the United States, this is widely understood as the basic underlying justification for copyright law. Other legal systems, particularly continental legal systems, place greater emphasis on the moral rights of the author. See Martin A. Roeder, *The Doctrine of Moral Right: A Study in the Law of Artists, Authors and Creators*, 53 HARV. L. REV. 554, 555-56 (1940).

and the author of the work would be unable to recoup much, if any, of his or her original investment in the creation of the work. Without the possibility of such a return on investment, authors as a whole would not have sufficient incentives to engage in creative activity.¹²² In focusing on tangible copies, copyright law thus identifies and focuses upon the primary unit of potential harm to creative incentives: the physical copy. By and large, the physical copy is, and has historically been, the basic unit of consumption of a work, and the unauthorized creation of additional units of consumption undermines the copyright grant.¹²³

In support of the central exclusive right to reproduce, copyright law also gives authors the exclusive right to control initial distribution of copies of the work to the public through sale, rental, lease, or loan.¹²⁴ The primary function of this exclusive right seems to be to facilitate enforcement of the underlying right to reproduce.¹²⁵ That is, even without the public distribution right, an author could in theory control public distribution of copies indirectly by withholding authorization to make those copies in the first

122. This is not to deny that in specific areas authors may have sufficient incentives, both monetary and nonmonetary (for example, academic papers), to engage in creative activity. See Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281, 300-32 (1970) (suggesting that, with specific respect to book publishing, other factors such as lead time may provide authors with sufficient incentives to engage in creative activity). But see Barry W. Tyerman, *The Economic Rationale for Copyright Protection for Published Books: A Reply to Professor Breyer*, 18 UCLA L. REV. 1100, 1108-19 (1971) (arguing in favor of copyright protection for economic reasons).

123. The Copyright Act's fixation requirement helps give specific shape to this basic unit of harm. Unfixed copies of copyrighted works, that is, copies that exist only in a transitory fashion, would seem to pose little threat to copyright incentives. As a general matter, unfixed copies do not last long enough to be transferred or sold to third parties. It is difficult to market a copy, at least in the physical world, that will last for only a few seconds. Accordingly, copyright law does not, at least with respect to the reproduction right, seek to regulate such ephemeral copies of copyrighted works. As we shall see below, however, this does not mean that ephemeral copies are not potentially subject to copyright regulation under other provisions of the Copyright Act.

124. See 17 U.S.C. § 106(3).

125. See GOLDSTEIN, *supra* note 3, § 5.5; see also M. Thierry Desurmont, *The Author's Right to Control the Destination of Copies Reproducing His Work*, 12 COLUM.-VLA J.L. & ARTS 481, 482 (1988) (identifying the right to control production and sale of copies reproducing an author's work as one of the key means by which an author exploits his or her work).

place.¹²⁶ However, there may be occasions when an entity is distributing unauthorized copies to the public, but the source of those unauthorized copies is unknown or difficult to identify. In such situations, copyright law gives the author the ability, subject to the important qualifications discussed below,¹²⁷ to proceed directly against the distributor of the copies. Thus, the public distribution right, like the reproduction right, focuses on the distribution of physical copies as the primary mode of consumption for copyrighted works.¹²⁸ It enhances the copyright owner's ability to control economic exploitation of the work through the sale of physical copies by giving the author the ability to control the precise point at which copies are made available for consumption by the public at large.¹²⁹

It is important to note, however, that the copyright law's focus on physical copies is both underinclusive and overinclusive as a proxy for harm to copyright incentives, and that copyright law recognizes this in a number of ways. First, the focus is underinclusive in the sense that other types of activity, not only copying, may also have a deleterious effect on incentives to create copyrighted works.

126. Conversely, a book printer is unlikely to pay for the right to make copies without also securing the right to publicly distribute such copies.

127. This right is expressly limited by the first sale doctrine to the first public distribution of "lawfully made" copies. Thus, once title to a given copy has, with the consent of the copyright owner, passed to a copy owner, the author generally no longer has control over subsequent disposition of that particular copy. We will return to the first sale doctrine in the later sections of this Part.

128. Note that an interesting question is whether making a copyrighted work available online constitutes a distribution. The exclusive right mentioned in section 106(3) refers to the distribution of "copies," which are defined in section 101 as "material objects" in which a work is fixed. See 17 U.S.C. §§ 106, 101. Although the distribution of a work over the Internet may result in a copy being made at the other end (that is, on the disk on which the work is stored), it is unclear whether the distributor is distributing "copies" since no "material objects" are changing hands. See WHITE PAPER, *supra* note 10 (noting this lack of clarity and proposing clarification through creation of a transmission right). The confusion here is another example of the way in which digital copies stretch existing copyright concepts. My general inclination is to view the transaction as functionally equivalent to a distribution, that is, it has the same effect as distributing copies on floppy disks. *But see* R. Anthony Reese, *The Public Display Right: Will It Matter in the Coming Century?*, 2001 U. ILL. L. REV. (forthcoming) (arguing that no distribution takes place). In any event, even if it is not a public distribution, other rights, such as the right to reproduce and the right to public display, are likely implicated. See Lemley, *supra* note 14, at 549; Reese, *supra*.

129. The right may also permit authors to license separately to different parties the manufacturing and distribution of copies.

Copyright partially accounts for this by adding additional rights to the bundle of rights, as discussed in more detail below. Second, the focus is overinclusive in the sense that certain types of copying do not pose any appreciable threat to copyright incentives. So, for example, copying only a small portion of a work for private, noncommercial use poses little or no threat to copyright incentives. Alternatively, certain types of copying may harm copyright incentives, but may be justified independently on grounds unrelated to the concern with providing incentives (for example, criticism). Many of these modes of copying may be privileged by the Copyright Act in a specific statutory provision or under the more flexible notion of fair use.¹³⁰

To address the problem of underinclusion, the Copyright Act adds rights to the author's bundle of rights. Among these are the rights to publicly display and publicly perform copyrighted works.¹³¹ These rights, not a part of the original bundle of rights established in the original Copyright Act, were added through judicial development and subsequently codified.¹³² They correspond to modes of publicly consuming a copyrighted work that do not depend on actually purchasing a copy of that work. For example, the primary way the general public consumes a play is not by purchasing a copy of the play and reading it, although this is certainly one way of consuming it. Rather, the primary way the public consumes a play involves going to a theater to watch a performance of it, preferably after a nice dinner. Similarly, prior to the advent of the VCR, the primary mode of consuming a movie involved going to a movie theater. Many television broadcasts are also exclusively (or at least primarily) exploited through public performance rather than through the sale of copies. By giving the author the right to control public performance (and similarly, public display), copyright law permits individual consumption of that particular copy through a sale, while

130. See 17 U.S.C. § 107.

131. Different categories of works are subject to each of these two exclusive rights. Between the two of them, these rights cover all of the different types of works mentioned in the Copyright Act, except sound recordings. *But see* Digital Performance Right in Sound Recordings Act of 1995, 17 U.S.C. § 114 (Supp. V 1999) (creating a right of digital performance for sound recordings). *Cf.* Architectural Works Protection Act, 17 U.S.C. § 120 (1994) (limiting public display rights for works of architecture).

132. See Paul Goldstein, *Copyright*, 55 LAW & CONTEMP. PROBS., Spring 1992, 79, 86-89 (discussing the timing and history of these additions).

preventing the owner of that particular copy from creating additional opportunities for others to consume the work on a large, public scale without compensating the original author.

Presumably an author could extract some of this value from the purchaser of a specific copy through increasing the price of the work to take into account subsequent performances or other uses. That is, the owner of the copyright to a motion picture could, in setting the price of a particular copy of the movie, take into account the value to the purchaser of subsequent public performances. However, by expressly giving the author the right to control subsequent performances, copyright law, at least in some circumstances, facilitates the copyright owner's ability to engage in price discrimination. That is, the copyright owner can charge different prices to users who simply want to read the play privately and users who would like to put on a Broadway show, thereby increasing the overall return to the copyright owner.¹³³ In addition, like the right to control public distribution, the public performance and display rights facilitate enforcement by barring certain performances and displays of unauthorized copies. So, for example, the public performance right would bar a television broadcast of an unauthorized copy of a movie, even if the party who made the unauthorized copy were difficult to identify.¹³⁴

The public performance and display rights thus account for a separate model of economic exploitation of a copyrighted work, a model that is in no way dependent upon the idea of a physical copy or the notion of fixation.¹³⁵ When a musical work is broadcast over

133. See generally Michael J. Meurer, *Price Discrimination, Personal Use and Piracy: Copyright Protection of Digital Works*, 45 BUFF. L. REV. 845 (1997) (describing price discrimination).

134. Note that the right to publicly perform and the right to publicly display are subject to a number of statutory limitations. For example, the public reception of a transmission on a single receiving apparatus is generally not an infringement. See 17 U.S.C. § 110(5) (1994 & Supp. V 1999). Similarly, the public display of a given copy of a copyrighted work (for example, the display of a work of art in a museum) is not an infringement. See 17 U.S.C. § 109(c) (1994). Both of these provisions appear to recognize some underlying interest possessed by the owner of a particular copy or the owner of a particular "receiving apparatus."

135. Note that the bundle of rights in section 106 now also includes an exclusive right to publicly perform sound recordings by means of digital audio transmission. See 17 U.S.C. § 114 (Supp. V 1999).

the radio, no copies of that work are fixed.¹³⁶ Similarly, when a movie is broadcast on television, "copies" (in the nonlegal sense) are made on the screen of your television, but these copies are ephemeral, unfixed.¹³⁷ Thus, the central right to control reproduction would not permit the copyright owner to prevent such widespread public consumption of the copyrighted work through public broadcast. In order to adapt to these new methods of economically exploiting copyrighted works, copyright law confers upon copyright owners the right to limit and control such methods of exploitation.¹³⁸

Finally, the Copyright Act confers upon authors the exclusive right to make derivative works based on the original work. Again, this was not one of the rights granted in the original Act. Under that Act, derivative works could freely be made without compensation for the author. The right to create a derivative work was added through judicial innovation and was subsequently codified.¹³⁹ The derivative work right reflects yet another expansion of copyright law to account for yet another avenue through which a copyrighted work could be exploited economically. For example, the primary mode of consuming a screenplay is not through purchase of a copy of the screenplay, but through the creation of a movie based on that screenplay and subsequent economic exploitation of that movie. The proper scope of the derivative work right is an extremely complex question, involving considerations not generally raised by the other exclusive rights, such as the proper balance of rights and incentives between original and subsequent authors.¹⁴⁰

136. *But see* 17 U.S.C. § 101 (1994 & Supp. V 1999) (defining "fixed" to include broadcasts that are simultaneously fixed).

137. Query, however, whether this might change upon the implementation of digital television (or radio) broadcast. If and when such a system is implemented, televisions may well include sophisticated computer chips designed to process the signals, and the reception of a digital broadcast signal may result in the creation of RAM copies in one's television. They may also permit capture and manipulation of such digital signals, thus raising essentially the same issues currently being raised in the context of networked computers.

138. For a specific adaptation to new technology, see Digital Performance Right in Sound Recordings Act of 1995, 17 U.S.C. § 114 (Supp. V 1999).

139. *See* 17 U.S.C. § 106(2) (1994).

140. *See* William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325 (1989). Landes and Posner suggest that the derivative work right facilitates orderly development of derivative works. *See id.* at 353-57. Without such a

The bundle of copyright rights listed in section 106 of the Copyright Act, and the development of this bundle of rights over time, thus reflect a central concern with protecting the primary ways in which copyrighted works can be exploited economically by copyright owners and consumed by the general public.¹⁴¹ In the structure of section 106, we see roughly three models of economic exploitation of copyrighted works: first, through the making and selling of copies of the work; second, through the public performance and display of the work; and third, through the making of works derived from the original work. An interesting feature of the bundle of rights is the extent to which it rests upon, and responds to, particular market structures and changes in such structures. Copyright law originally focused only on the making and sale of copies, because those activities were, in the era of the printing press, the primary ways through which copyrighted works were initially exploited. As new ways of consuming copyrighted works, and correspondingly new market structures, arose, copyright law expanded to include these new modes of consumption.¹⁴² Thus, the print-based model has been expanded to encompass performance, broadcast, and other technologies and economic models.¹⁴³

right, Landes and Posner argue, creators of underlying works might delay publication of such works until they have themselves created or seen to the creation of derivative works. *See id.*

141. *See* Goldstein, *supra* note 132, at 85 ("Putting these cautionary observations to the side, I think it is historically accurate to say that, in general, Congress has given copyright owners rights to every market in which consumers derive value from their works and in which transactions costs do not stand in the way of negotiated payments."); *see also* Litman, *supra* note 3, at 40-43 (proposing a right to economically exploit).

142. Note that in certain limited areas, copyright law also restricts rights that would normally accompany ownership of the physical copy for noneconomic reasons. In particular, in 1990, the Visual Artists Rights Act amended the Copyright Act to recognize certain moral rights of authors who produced certain types of statutorily defined "visual art." *See* 17 U.S.C. § 106A. These rights prevent owners of copies of such works, under certain circumstances, from physically altering the copy. The scope of these provisions is generally limited, however, to a specific subset of copyrighted works.

143. *See* Litman, *supra* note 3, at 19 ("Our current copyright law is based on a model devised for print media, and expanded with some difficulty to embrace a world that includes live, filmed and taped performances, broadcast media, and, most recently, digital media. That much is uncontroversial.").

B. What Copy Owners Do Own

Copyright law stops well short, however, of giving copyright owners control over all uses of copies of copyrighted works. That is, even as the rights of authors have been expanded to encompass new mass markets for exploiting a copyrighted work, copyright law has refrained from giving authors control over many existing uses of copies of copyrighted works. For the purposes of this Article, I am centrally concerned with two of these "rights," or, more accurately, incidents of copy ownership: (1) the ability to read, play, use, or otherwise access a copy;¹⁴⁴ and (2) the ability to lend, rent, sell, or otherwise transfer a copy (collectively, a general ability to transfer).¹⁴⁵ For the reasons set forth above, these particular incidents of copy ownership raise rather tricky questions of translation into the digital environment, because they run into potential conflict with the copyright owner's right to control reproduction. In order to understand whether and how these incidents of copy ownership should be translated into the digital environment, we must first understand, as a descriptive matter, the extent of these incidents of copy ownership and their legal source.

1. The Ability to Read

First and foremost, the owner of a physical copy in practice acquires an unlimited ability to read, play, or otherwise access the copyrighted work—in very generic terms, an unlimited "right to

144. As outlined in more detail below, in considering this particular incident of copyright ownership, I will also consider the extent to which individuals can modify and adapt copies of copyrighted works in the context of using or consuming such works.

145. In outlining these copy owner "rights," I am focusing only on those that raise difficult issues in the context of digital copies. Of course, given the limited bundle of rights listed in section 106, a nearly unlimited number of copy owner "rights" could be identified (for example, the right to destroy a copy, the right to extract ideas, the more limited rights associated with "fair use," the right to use a copy as a frisbee, etc.). See Nimmer, *supra* note 13, at 60. For the purposes of this Article, however, I focus primarily on those "rights" that pose the most difficult issues of translation in the digital environment. See, e.g., Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 1039 n.242 (1997) ("The most significant rights absent from [section 106] are the rights to control use and resale of the work once it has first been sold by the copyright owner or a licensee.").

read.”¹⁴⁶ Thus, when I obtain possession of a copy of a book, I acquire the right to read it as many times as I wish; similarly, when I obtain possession of recorded music on a compact disc (CD) or a movie on a videotape, I acquire the right to play the music or the movie as many times as I wish. There is nothing seemingly exceptional about this right. Indeed, in many ways, nothing could be more ordinary. We commonly understand this “right” to unlimited access to be a natural and inherent part of our possession of physical copies of a copyrighted work. It is part of what we are buying; it is a part of what we now own. Moreover, this right does not attach through any implied “license” between the purchaser and the seller. Rather, the owner of a copy acquires these “rights” simply because she possesses the copy, however she came to possess it—even if it were stolen, obtained from a third party, or created without authorization from the copyright owner.¹⁴⁷ These “rights” are merely the incidents of the individual’s ownership of the physical property that is the copy.

The legal “source” of this unlimited ability to read, to the extent there is one, can be found in the gaps in the Copyright Act. Section 106 of the Act, as several commentators have noted, does not include in the bundle of copyright rights the right to control the reading of a given copy. Rather, section 106 confers upon copyright owners only the limited bundle of rights mentioned in the previous section.¹⁴⁸ Rights that are not mentioned in section 106 are, by default, retained by the copy owner. So, by virtue of my ownership or possession of a physical copy of a book, I can read it as many times as I wish (until the book itself begins to deteriorate), and the Copyright Act says nothing that would prevent me from engaging in such an activity.¹⁴⁹ The lack of a right to control reading, combined with the inherent attributes of the physical copy, gives rise to the copy owner’s ability to read or access the copy. The ability to read and access physical copies is thus part of the physical

146. Litman, *supra* note 13, at 31-32.

147. These actions may, of course, give rise to other legal claims. However, the actual right to read or access the copy is not affected.

148. See discussion *supra* Part II.A.

149. Though if I read the work aloud in a public place, I may be infringing upon the public performance right. See 17 U.S.C. § 106(4) (1994 & Supp. V 1999).

reality that copyright law takes for granted and upon which it operates.

At the same time, however, it is worth noting that the Act nowhere preserves or guarantees copy owners any right to read against other restrictions on reading.¹⁵⁰ Therefore, for example, a book could be written in a special kind of ink that vanishes ten minutes after being exposed to the air, or a sound recording could be recorded in such a way that it automatically erases itself, à la *Mission Impossible*, after a single playing. Nothing in the Act itself bars these potential (though unlikely)¹⁵¹ methods of limiting my access to a physical copy in my possession. Rather, my ability to access and read a book in my physical possession is a function of both the limited bundle of rights in section 106 and the physical characteristics of the copies themselves.¹⁵² The Act is simply silent on the issue.

By the same token, the lack of express reference to the ability of copy owners to read their physical copies does not necessarily mean that this ability has no significance for copyright law. This is, in many ways, the presumption underlying the White Paper's position on accessing digital copies. From the perspective of the White Paper, technology has changed such that reading a digital document necessarily entails the creation of a copy of that work in a computer's RAM. Because the Copyright Act does not expressly

150. Julie Cohen has argued that the First Amendment supports a "right to read anonymously," which bars the government from enacting measures supporting the technological protection measures that infringe on such a right. Julie E. Cohen, *A Right to Read Anonymously: A Closer Look at "Copyright Management" in Cyberspace*, 28 CONN. L. REV. 981 (1996).

151. These methods are unlikely because they are costly in the physical world. Moreover, consumers would likely resist such attempts to control use, or, at the very least, would pay only a significantly reduced price for a copy that could only be read once or twice. In the online environment, however, the economics may be such that technologically equivalent mechanisms for controlling the use of digital copies may be economically attractive. See *id.* I discuss this in more detail below.

152. This latter observation is the implicit basis for the White Paper's position on computer access of digital copies. The reasoning goes something like this: nothing in the Act guarantees a right to access or read copies in one's possession; accessing a digital copy by computer results in the creation of a literal copy of the work in the computer's RAM; therefore, accessing a digital copy implicates the copyright owner's exclusive right to reproduction. The existing ability of copy owners to access and read physical copies of copyrighted works is not a legally relevant consideration, as it is nowhere expressly mentioned in the Copyright Act.

refer to a "right to read," the existing ability of copy owners to read physical copies is legally irrelevant. Accordingly, one can apply the terms of the Copyright Act to digital copies without any concern about preserving the ability to access or read such copies.

Again, this ultimately may be a sound conclusion, but it can only be reached, if at all, after careful consideration of the precise role that the unlimited ability to read physical copies plays in light of the policy and purposes of copyright law. Indeed, the contrary conclusion could well be warranted; after examining copyright law carefully, one might conclude that the capacity to read copies in one's possession, though not expressly preserved in the Copyright Act, is a fundamental assumption underlying the Act, one worth preserving in the online environment. The more general point is that the advent of digital technology poses a significant challenge to the assumptions underlying copyright law. Thus, there is no reason to expect that literal application of the terms of Copyright Act will reach a result consistent with copyright law as a whole. Accordingly, more work is necessary before one can decide how to think about this unlimited ability to read physical copies.

2. *The Ability to Transfer*

In addition to an unlimited ability to read, the purchaser of a physical copy also acquires the right to transfer possession of that copy to another, whether through gift, sale, lease, or loan. For example, if I purchase a book, I can subsequently lend it to a friend, sell it to a used bookstore, or rent it out for a fee. Unlike the "right to read" mentioned above, this "right" is in fact expressly mentioned in the Copyright Act in the form of the first sale doctrine. Originally a judge-made doctrine,¹⁵³ the first sale doctrine was later incorporated into the 1909 Act.¹⁵⁴ The statute provides that "the owner of a particular copy . . . lawfully made under this title . . . is entitled, without the authority of the copyright owner, to sell or

153. It was first recognized by the Supreme Court in *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339, 350-51 (1908), as an exception to the then-existing exclusive right to "vend." See also *Harrison v. Maynard, Merrill & Co.*, 61 F. 689, 691 (2d Cir. 1894) (recognizing right to vend).

154. See Copyright Act of 1909, ch. 320, § 41, 35 Stat. 1084 (current version at 17 U.S.C. § 109(a) (1994)); *Quality King Distribs., Inc. v. L'Anza Research Int'l, Inc.*, 523 U.S. 135 (1998).

otherwise dispose of the possession of that copy."¹⁵⁵ One of the few provisions in the Act that expressly mentions the rights of copy owners,¹⁵⁶ the first sale doctrine expressly reserves to the owner of a lawfully made copy the right to "dispose" of the possession of that copy, whether through gift, sale, lease, or loan. Without such a provision, these actions could potentially infringe upon the copyright owner's exclusive right to control public distribution of that work.

Note that this right is also limited in a number of important ways by the terms of the statute. First, it applies only to "owners" of a copy.¹⁵⁷ As a later portion of section 109 expressly indicates, this right to lend or transfer does not extend to individuals who acquire possession of a copy through "rental, lease, loan, or otherwise."¹⁵⁸ This right attaches only if one has acquired title in the copy. This limitation has important ramifications for digital copies, given the increasing reliance of copyright owners upon licensing, rather than sale of copies, as a method of distribution. Several federal courts have held that the first sale doctrine does not apply to software users who have licensed the software, because they have not acquired title to a particular copy.¹⁵⁹ If mass-market shrink-wrap licenses become the norm and are found enforceable,¹⁶⁰ then the

155. 17 U.S.C. § 109(a) (1994).

156. *See id.* § 202 (drawing express distinction between ownership of the copyright and ownership of a particular copy); *id.* § 117 (setting forth owner rights for software).

157. *See Little, Brown & Co. v. American Paper Recycling Corp.*, 824 F. Supp. 11, 17 (D. Mass. 1993).

158. 17 U.S.C. § 109(d).

159. *See, e.g., DSC Communications Corp. v. Pulse Communications Inc.*, 170 F.3d 1354, 1360-62 (4th Cir. 1999); *MAI Sys. Corp. v. Peak Computer, Inc.*, 991 F.2d 511, 518-19 (9th Cir. 1993); *Telecommunications Technical Servs. v. Siemens Rolm Communications, Inc.*, 66 F. Supp. 2d 1306, 1324-25 (N.D. Ga. 1998); *Microsoft Corp. v. Harmony Computers & Elecs., Inc.*, 846 F. Supp. 208, 212-13 (E.D.N.Y. 1994); *ISC-Bunker Ramo Corp. v. Altech, Inc.*, 765 F. Supp. 1310, 1331 (N.D. Ill. 1990); *see also H.R. REP. NO. 94-1476*, at 79 (1976) ("This does not mean that conditions on future disposition of copies or phonorecords, imposed by a contract between their buyer and seller, would be unenforceable between the parties as a breach of contract, but it does mean that they could not be enforced by an action for infringement of copyright."); *cf. Applied Info. Management, Inc. v. Icart*, 976 F. Supp. 149, 155 (E.D.N.Y. 1997) (holding that whether a licensee is an "owner" will depend on the particular details of the licensing agreement).

160. *See ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1453-54 (7th Cir. 1996); Mark Lemley, *Intellectual Property and Shrinkwrap Licenses*, 68 S. CAL. L. REV. 1239, 1259-63 (1995).

scope and application of the first sale doctrine may be greatly limited with respect to digital copies.

Second, the first sale doctrine applies only to copies that have been "lawfully made," that is, authorized by the copyright owner or otherwise privileged by statute (for example, through the fair use doctrine or other statutory exceptions, such as the compulsory licensing provisions). What this means in practice is that the right to lend or transfer to the public an owned copy does not apply to pirated or otherwise "unlawfully made" copies. Although an owner of a pirated copy of a book may lawfully purchase it and read it as many times as he or she wishes, the subsequent sale of such a copy to the public would infringe upon the distribution right.¹⁶¹ This limitation essentially preserves the ability of copyright owners to restrict sales of unauthorized copies through exercise of the distribution right.¹⁶²

Historically, the source of the first sale doctrine appears to have been the common law reluctance to enforce restraints on the alienation of physical property.¹⁶³ Under the common law, such restraints were generally disfavored because they hindered the free exchange of property and its eventual transfer to its most socially productive uses.¹⁶⁴ This concern about the free alienation of physical

161. See H.R. REP. NO. 94-1476, at 79 ("For example, any resale of an illegally 'pirated' phonorecord would be an infringement, but the disposition of a phonorecord legally made under the compulsory licensing provisions of section 115 would not.").

162. A contrary rule effectively would gut the distribution right's role in facilitating enforcement of the reproduction right.

163. See *John D. Park & Sons, Co. v. Hartman*, 153 F. 2d, 39 (6th Cir. 1907) ("A prime objection to the enforceability [sic] of such a system of restraint upon sales and prices is that they offend against the ordinary and usual freedom of traffic in chattels or articles which pass by mere delivery."); *Parfums Givenchy, Inc. v. C & C Beauty Sales, Inc.*, 832 F. Supp. 1378, 1388-89 (C.D. Cal. 1993); H.R. REP. NO. 98-987, at 2 (1984) ("The first sale doctrine has its roots in the English common law rule against restraints on alienation of property."); John M. Kernochan, *The Distribution Right in the United States of America: Review and Reflections*, 42 VAND. L. REV. 1407, 1412 (1989) ("The so-called first sale doctrine originated in general English common-law rules of ancient ancestry disapproving restraints on the alienation of owned property. The right of alienation was viewed as a basic element of ownership. It was founded on policies favoring the free transferability of land and, more particularly, goods.") (citations omitted).

164. See Zechariah Chafee, Jr., *The Music Goes Round and Round: Equitable Servitudes and Chattels*, 69 HARV. L. REV. 1250, 1261 (1956) ("Where chattels are involved and not just land or a business, the policy in favor of mobility creates even stronger cause for courts to hesitate and scrutinize carefully factors of social desirability before imposing novel burdens on property in the hands of transferees."); Michael D. Kirby, Comment, *Restraints on*

property thus acts, through the first sale doctrine, to impose an express limit on the rights of copyright owners to control subsequent transfers and uses of copies. Once a copyright owner has parted with title to a specific copy of that work, the subsequent owner of that copy can, subject to a few exceptions, dispose of it as he or she wishes.¹⁶⁵ Even though some uses of that copy (such as a loan) might in fact deprive the copyright owner of subsequent sales, copyright law generally ignores such harm in favor of the copy owner's physical control over the specific copy.¹⁶⁶

There are limits, however, to the extent to which copyright law takes into consideration this concern about free alienation of physical property. Most notably, the Copyright Act, notwithstanding the first sale doctrine, bars the commercial rental of two specific types of creative works: sound recordings and computer software. The specific limit on renting sound recordings was enacted in response to concerns that many record rental stores were in fact thinly veiled facilitators of widespread copyright infringement.¹⁶⁷ A similar provision was passed with respect to computer software in 1990. In both these cases, the Copyright Act steps in to limit a copy owner's large-scale commercial use of his or her physical copies in order to eliminate a specific piracy threat.¹⁶⁸

Alienation: Placing a 13th Century Doctrine in a 21st Century Perspective, 40 BAYLOR L. REV. 413, 415 (1988) (exploring the history of the law on restraints).

165. See *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339, 350 (1908) ("It is not denied that one who has sold a copyrighted article, without restriction, has parted with all right to control the sale of it.").

166. See 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT, § 8.12[A] (2000) ("[A]t this point, the policy favoring a copyright monopoly for authors gives way to the policy opposing . . . restraints of alienation."). Note, however, that copyright owners have sought to expand their control over subsequent disposal of copies, but without much success. For example, the recording industry, motivated by the essentially limitless shelf-life of digital compact discs, has attempted to exert control over the market for used compact discs. See Fara Daun, Comment, *The Content Shop: Toward an Economic Legal Structure for Clearing and Licensing Multimedia Content*, 30 LOY. L.A. L. REV. 215, 253 (1996); Carla M. Miller, Note, *New Technology and Old Protection: The Case for Resale Royalties on the Retail Sale of Used CDs*, 46 HAST. L.J. 217 (1994). Such attempts have thus far failed.

167. See David H. Horowitz, *The Record Rental Amendment of 1984: A Case Study in the Effort to Adapt Copyright Law to New Technology*, 12 COLUM.-VLA J.L. & ARTS 31, 32-34 (1987). Many stores in fact sold blank tapes and touted the ability to make personal copies that would make subsequent purchases unnecessary.

168. An interesting side note is that similar legislation with respect to videocassette rentals failed to pass, primarily because at the time local video rental stores, unlike record rental stores, constituted a vocal, organized, and well-entrenched interest group. See

In the course of addressing this piracy threat, however, these provisions simultaneously restrict uncompensated consumption of such works through potentially legitimate (that is, nonpiracy-inducing) rentals.¹⁶⁹ Noncommercial lending of copies, whether by individuals or certain nonprofit institutions, is still permissible under this provision.¹⁷⁰

Over the course of the years, numerous additional, and thus far unsuccessful, attempts have been made to peel back parts of the first sale doctrine in order to give copyright owners greater control over subsequent uses of copies. For many years, authors and book publishers have sought a right to control public lending of copies of their books, claiming that such lending (through libraries, for example) greatly decreases the number of copies they sell and thus reduces the royalties they are able to obtain.¹⁷¹ Although similar public lending rights are recognized in a number of other countries,¹⁷² the efforts of authors and book publishers have not been successful in the United States. The music industry has also sought to obtain a right to control the sale of used CDs, driven in large part by concern that CDs, unlike prior recording media, are virtually indestructible and suffer no appreciable loss in quality over time.¹⁷³ Attempts to derive fees from the used CD market have

Goldstein, *supra* note 132, at 82; Kernochan, *supra* note 163, at 1420. Accordingly, videocassettes, under the first sale doctrine, can be rented to the public at large without payment of any royalties to the owners of the copyrights in the underlying movies. Despite the political explanation for the difference in treatment between videocassettes and recorded music, there may in fact be a legitimate policy reason to support a distinction between the two types of works. Movies tend to be consumed once, whereas recorded music is often consumed repeatedly. Accordingly, one would expect the piracy incentives to be greater in the latter context, as consumption patterns increase consumer desire to acquire copies and build collections.

169. Note that the copyright owners would probably have had a claim against the store owners for contributory infringement.

170. Other countries, such as the United Kingdom, have even broader provisions, conferring upon copyright holders a general right to lend publicly. Thus, for example, libraries in the United Kingdom must pay a royalty to the copyright owner each time they lend a book. See Gerald Dworkin, *Public Lending Right—The UK Experience*, 13 COLUM. J.L. & ARTS 49, 58 (1988).

171. See Kernochan, *supra* note 163, at 1424-30.

172. *E.g.*, the United Kingdom.

173. Similar attempts were made by textbook publishers, as well as artists. California has enacted a right to royalties for resale of certain works of fine art. See CAL. CIV. CODE § 986 (West 1982 & Supp. 2001); Jeffrey C. Wu, *Art Resale Rights and the Art Resale Market: A Follow-Up Study*, 46 J. COPYRIGHTS SOC'Y U.S.A. 531, 532 (1999).

thus far failed.¹⁷⁴ Virtually all of these attempts, however, leave undisturbed the very basic first sale right of an individual to transfer a given, lawfully made copy in a noncommercial context.

3. *Other Owner Rights*

In addition to the ability to read and the ability to transfer, the owner of a copy of a copyrighted work may also acquire additional "rights." For example, the owner of a copy is able to exercise many of the privileges permitted by "fair use."¹⁷⁵ Thus, the copy owner may, under certain circumstances, and for certain purposes (such as education, criticism, etc.), engage in some limited copying or other uses of the work that would otherwise be infringing. The fair use privilege, unlike the incidents of copy ownership discussed in more detail above, is not directly linked to the issue of possession or ownership of the physical copy. Rather, these privileges are available more generally to anyone, not only to the individual who possesses a particular copy of a copyrighted work.

In a few areas, however, fair use does appear specifically to acknowledge the particular rights of copy owners and to give such owners perhaps some greater degree of freedom with respect to copies that they possess. In particular, courts have occasionally found fair use for certain acts of reproduction that copy owners engage in during the course of using that copy or adapting that copy to a particular use. For example, an owner of a particular CD may be privileged by fair use to make a copy of the album on tape, so that he or she can play it in a car stereo or Walkman.¹⁷⁶ The same act undertaken by someone who did not own the CD would be more suspect. Thus, at least in these contexts, it appears that fair use acknowledges and gives some greater protection to certain uses engaged in by the owners of copies in the course of using such copies.

Most importantly, for our purposes, section 117 of the Copyright Act includes a very specific provision that expressly acknowledges

174. See Daun, *supra* note 166, at 253.

175. See 17 U.S.C. § 107 (1994).

176. This kind of personal taping is also expressly privileged by the Audio Home Recording Act. See *id.* § 1008.

this interest in the context of computer software.¹⁷⁷ As already mentioned briefly above, section 117 grants owners of copies of computer software the right to make a copy of that software for one of two purposes: (1) as an "essential step in the utilization of the computer program"; or (2) for "archival purposes."¹⁷⁸ The first purpose reflects a recognition that software is rarely run from the specific purchased copy; rather, software is commonly run from a copy that is installed in the hard drive of a computer. Thus, section 117 expressly privileges this type of copying. In addition, section 117 provides an express exemption for software owners from potential liability under *MAI* for merely running the software. Thus, the owner of a copy of software, even if not permitted to do so under any implied or express license, has the right to run that software as many times as he or she wants, even if this results in the creation of "copies" in the RAM of the computer. However, as noted above, several courts, like the court in *MAI*, have held that section 117 by its terms does not apply to mere licensees of software. Thus, the scope of this exemption may be significantly narrowed to the extent that most software becomes licensed rather than owned. The second purpose reflects a recognition that owners of software may have a legitimate need to create backup copies of software in case the original copy becomes destroyed or erased.¹⁷⁹

I will return to section 117 later in this Article,¹⁸⁰ when I discuss possible methods of implementing the proposals I advance. For present purposes, however, it is worth noting that section 117 reflects an express recognition of certain unique features of computer software, features that may be quite applicable to other copyrighted works in digital form. Section 117 appears to acknowledge both that utilization of software may sometimes require reproduction, and that software is evanescent and potentially fragile. Although section 117 by its terms is limited to computer software, its recognition of some of the unique aspects of digital documents may provide a doctrinal basis for implementing a number of suggested changes.

177. See *id.* § 117 (1994 & Supp. V 1999).

178. *Id.*

179. The statute further provides that such archival copies may be transferred to others only as part of a transfer of the original copy to a third party. See *id.*

180. See *infra* Part IV.A.1.

Finally, the Copyright Act also gives copy owners the right to display publicly a given copy of a copyrighted work under certain circumstances. Provisions of the Act expressly permit the owner of a copy of a copyrighted work to display that copy publicly to viewers who are "present at the place where the copy is located."¹⁸¹ Thus, for example, the owner of a statue may display the statue to the public in a museum. This right does not extend, however, to displaying the statue to the broader public, say through a television broadcast. Like the first sale doctrine, this provision seems to be an express recognition of certain conventional understandings concerning what it means to own physical personal property. A limitation on the ability to display a given copy in a public place would seem to intrude too much on rights of the copy owner's interest in the physical property.¹⁸²

III. WHY COPY OWNERS OWN WHAT THEY OWN

Having laid out descriptively a number of the incidents of physical copy ownership, I now ask what role, if any, these incidents of physical copy ownership play in copyright law. Are the incidents of copy ownership as set forth above—the ability to read, lend, rent, and sell physical copies—an important part of the copyright balance worth preserving in the digital environment? Or are they merely accidents of a particular technology and market structure, accidents that deserve no protection in a newly emerging digital marketplace? Answering this question requires an expansion of the focus outward from the history and doctrine of the Copyright Act to consideration of a number of broader theoretical frameworks that have been offered in support of U.S. copyright law. What support, if any, do these various theoretical frameworks offer for the existing distribution of rights? Do they help us explain the existence and role of these incidents of copy ownership?

Before turning to these theoretical frameworks, an initial word is warranted on the relevance of these frameworks and the role they play in the analysis of copyright law. As a general matter, traditional legal materials, such as legislative history, provide

181. 17 U.S.C. § 109(c) (1994).

182. See Reese, *supra* note 128.

somewhat less guidance in copyright law than in many other comparable areas of statutory interpretation. First, the Copyright Act, even more than many federal statutes, reflects numerous, and often quite express, legislative compromises reached among various interest groups.¹⁸³ In many places, detailed statutory provisions set forth exemptions or other special enactments designed to take into account particular markets or industry structures.¹⁸⁴ Interest groups were quite directly involved in the crafting of the most recent comprehensive overhaul of the Act, in 1976. (Indeed, this involvement was seen as a way of facilitating the difficult and time-consuming process that led to passage of the Act.¹⁸⁵) What this means in practice is that clear general statements of policy may be difficult to find or hard to interpret or both.¹⁸⁶

Second, these legal materials are little help in adapting the Act to dramatic changes in technology, which are almost always unforeseen and often have the effect of substantially disrupting both existing relationships and the economics underlying the Copyright Act.¹⁸⁷ Throughout its history, copyright law has had to adapt to dramatic changes in copying technology and content distribution. Broadcast technologies dramatically altered the way many copyrighted works were consumed or distributed. The

183. See Litman, *supra* note 17, at 865.

184. See 17 U.S.C. §§ 115-116 (1994 & Supp. V 1999) (requiring various compulsory licenses); Robert P. Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations*, 84 CAL. L. REV. 1293 (1996).

185. More recent amendments have similarly reflected this characteristic of interest-group compromise. See Audio Home Recording Act of 1992, 17 U.S.C. §§ 1001-1010 (1994).

186. Jessica Litman has carefully documented many of the problems raised by the 1976 Act and its legislative history. See Litman, *supra* note 17, at 865; see generally DANIEL A. FARBER & PHILLIP P. FRICKEY, *LAW AND PUBLIC CHOICE* (1991) (describing influence of private interest groups). Some have argued that the courts, in interpreting such statutes, should seek to enforce the interest-group bargains represented by the statutes. See Frank H. Easterbrook, *The State of Madison's Vision of the State: A Public Choice Perspective*, 107 HARV. L. REV. 1328 (1994). Whether or not one agrees with this view, see Jonathan R. Macey, *Promoting Public-Regarding Legislation Through Statutory Interpretation: An Interest Group Model*, 86 COLUM. L. REV. 223, 233-40 (1986) (arguing that courts should instead hold legislators to their public statements, regardless of the interest-group bargains behind the legislation), in the case of copyright legislation, there is the additional problem, discussed *infra*, regarding what to do when new technologies were never anticipated at the time of the original bargain.

187. See Neil Weinstock Netanel, *Asserting Copyright's Democratic Principles in the Global Arena*, 51 VAND. L. REV. 217 (1998). But see Reese, *supra* note 128 (arguing that Congress anticipated computer networks when it crafted the public display right).

invention of the photocopier drastically lowered the cost of copying printed copyrighted materials. The invention of the VCR gave rise to numerous unforeseen circumstances and situations. Because copyright legislation has generally been slow to respond to technological change, courts have frequently been forced to adapt the existing copyright laws to these new situations and problems, but without the benefit of any clear statements of policy from the Copyright Act itself.¹⁸⁸ The legislature has often (though not always) acted after the courts have already established certain legal rules.¹⁸⁹

Finally, the Copyright Act at certain points confers substantial authority upon the courts to craft judge-made law. One obvious example is the fair use doctrine. Other than setting forth a number of broad statutory factors, the Act largely gives courts a broad degree of discretion in determining what constitutes fair use, an issue that is central to the overall balance of rights and incentives it effects. Indeed, the fair use doctrine was originally a judge-made doctrine, and its subsequently loose codification reflects its origins. Judicial theorizing and academic commentary has, accordingly, focused much attention on this area of copyright law.¹⁹⁰ Similarly, other portions of the Act, such as the provision listing the types of works covered by copyright, also evince a willingness to give courts substantial room to adapt the Copyright Act to novel circumstances.

188. Indeed, judicial lawmaking in the copyright context has been quite extensive, in part because of the constant need to adapt the Copyright Act to quite novel circumstances. For example, the fair use doctrine, perhaps the single most important provision of the Act, was originally a judicial innovation and continues to comprise a significant body of judge-made law. At the same time, other provisions of the Act contain excruciatingly detailed provisions carefully tailored to the particular structure of a particular copyright market. *See, e.g.*, Audio Home Recording Act of 1992, 17 U.S.C. § 1001-1010.

189. Despite these objections, many commentators have, as discussed earlier in this Article, effectively and exhaustively critiqued the result in *MAI* on such grounds (that is, text and legislative history). *See supra* notes 36-41. In my view, those critiques have it exactly right. However, perhaps because of the limitations of such sources, as discussed above in the text, and in light of dramatic technological change, such arguments have up to now had little effect on actual legal results. More generally, however, this Article, in expressly examining the theoretical bases of copyright law, attempts to find a firmer normative basis for supporting or opposing the result in *MAI*. Thus, the recommendations at the end of this Article include proposals, not only for judicial interpretation, but also for legislative changes.

190. *See, e.g.*, Fisher, *Fair Use Doctrine*, *supra* note 2, at 1659; Gordon, *supra* note 2, at 1600; Leval, *supra* note 2, at 1105; Weinreb, *supra* note 2, at 1137.

As a result, judicial decision making in this area has often looked to first principles for guidance.¹⁹¹ Courts and commentators have developed various theoretical frameworks to help give structure to the particular provisions of the Act and to guide courts in their unavoidable extension of the Act into novel and unforeseen circumstances. The Act itself does not clearly embody any single overarching theoretical framework, other than a general bias toward an instrumental view of copyright law (as reflected in the Constitutional authorization¹⁹²). In fact, given the numerous legislative compromises that gave rise to the Copyright Act, the existence of a coherent overall framework would be a miraculous accident. Nevertheless, judicial decision making, driven by the courts' need to provide justification, has by and large drawn from various theoretical frameworks in an attempt to rationalize the pattern of decision making.

At the same time, disagreement currently exists over precisely which first principles properly underlie copyright law.¹⁹³ Although U.S. copyright law is generally characterized by its instrumental approach (as opposed to the authors' rights orientation of continental copyright law),¹⁹⁴ even within the instrumental view differences of opinion exist over whether copyright law should provide only minimal incentives for the creation of works, or whether it should appropriate the maximum return to authors in order to facilitate economic efficiency. Notions of "desert" also often figure into both theoretical discussions and particular judicial decisions, even within the broad instrumental orientation of U.S. copyright law. In practice, courts draw upon an uneasy and sometimes conflicting mix of different theoretical frameworks.

Thus, in looking for "the" justification for the copy owner's ability to read, lend, and sell copies of copyrighted works, I will consider a number of different theoretical frameworks that have been advanced to help explain and structure copyright law. How do these

191. See PAUL GOLDSTEIN, *COPYRIGHT'S HIGHWAY* (1994); Boyle, *supra* note 22, at 48.

192. See U.S. CONST. art I, § 8, cl. 8.

193. See BOYLE, *supra* note 16, at 19 ("[I]n copyright law—to a greater extent than in most other fields of legal doctrine—there is a routine and acknowledged breakdown of the simplifying assumptions of the discourse, so that mundane issues force lawyers, judges, and policy makers to return to first principles.")

194. See, e.g., Paul Edward Geller, *Copyright History and the Future: What's Culture Got to Do With It?*, 47 J. COPYRIGHT SOC'Y U.S.A. 209, 259 (2000).

frameworks account for the existing balance of rights between copy owner and copyright owner (if they do in fact account for this balance)? Are these accounts persuasive? Do they shed light on the existing balance and thereby give us guidance on how to translate copy owner rights into the digital environment? In examining these frameworks in the particular context of digital copy ownership, the analysis will shed some light on how effective such frameworks are as ways of adapting copyright law to new changes in technology.

As this somewhat eclectic theoretical approach suggests, I am generally skeptical of attempts to find a single theoretical explanation or justification for copyright law and to derive specific results solely from such a single framework. Copyright law is characterized in general by a complex and overlapping mix of theories, and this seems to me in many ways entirely appropriate. Our attitude toward creative works, and information in general, is complex, not easily reducible to a single metric. The conditions that give rise to the creation of intellectual works, their role in our society, the way in which we consume such works—these are issues that are not susceptible to easy categorization. Accordingly, it should not be surprising to see a multiplicity of theories. At the same time, however, it is important to articulate what these competing theories signify and to try at least to make some attempt to take into account the different implications of these competing theories.

A. Conventional Understandings of Property

As an initial matter, the analysis in the previous Part of this Article strongly suggests that, as a purely descriptive matter, the incidents of copy ownership can be explained as having arisen from conventional and deeply embedded understandings about what it means to own or to possess physical personal property. I can read my copy of *As I Lay Dying* as many times as I want because I own the book. I can sell that copy to a used bookstore, again because I own the book, in much the same way I own my television or my car. Under this view, these understandings, and really nothing more, or more complicated, explain why I can read and transfer the books

and other copies that I own.¹⁹⁵ The incidents of copy ownership flow ineluctably from possession and dominion over the physical copy. They are simply a part of what it means to own physical property.

Copyright law, then, does not so much expressly build in such incidents of copy ownership, as it accepts and assumes such incidents as given. That is, under this view, understandings about physical copy ownership antedate the relatively more recent development of copyright law. These understandings make up part of the physical environment within which copyright law operates. Copyright law structures itself around such understandings about the physical environment and physical property ownership. It does this in part by setting up a structure that assumes the sale of the physical copy as the basic means of exploiting a creative work and, along with that assumption, assumes that copy ownership will be accompanied by certain well-established rights or privileges. It also does this more explicitly in certain areas by formally recognizing such understandings and preserving them against encroachment by other parts of copyright law, as for example with the first sale doctrine or the public display right.¹⁹⁶ In both of these cases, copyright law carves out an exception for certain activities (for example, selling and displaying) that are tightly bound up with notions of physical property ownership, in order to keep such activities from constituting infringement of other enumerated rights.

In many ways, this view is quite appealing. It seems to explain much of the uneasiness associated with efforts to control uses of copies that are too closely tied to or implicate notions of physical property ownership. So, for example, any attempt to regulate reading seems to conflict with fundamental notions of what it means to own a book.¹⁹⁷ Similarly, attempts to regulate resale of physical copies conflict with the right of alienation, a fundamental incident of physical property ownership. To be sure, instincts about physical property are qualified. For example, I cannot run my copy of the book through a photocopier despite the fact that I own it. Nor

195. Cf. Weinreb, *supra* note 2, at 1138 (discussing fair use).

196. See 17 U.S.C. §§ 106, 109 (1994 & Supp. V 1999).

197. The "right to read" could also be explained, in part, by a concern about privacy. That is, regulating the right to read a book in one's possession may seem too intrusive. I address this possibility in a later section of this Article.

can I read my book aloud in a public place. And in other instances, copyright law trumps these conventional understandings when the effect would be to undermine significantly the purpose of copyright law, for example, in the restriction on the commercial renting of audio tapes.¹⁹⁸ Copyright law, however, limits such regulation of the usual incidents of copy ownership to areas that are most essential to ensure copyright's incentive-preserving function and, indeed, in a number of areas, accedes to notions of physical property ownership even in some circumstances where incentives are clearly harmed.¹⁹⁹ Put another way, physical copy owner "rights" are defined primarily by the law of personal property, with copyright law imposing a few limited restrictions. The idea of physical copy ownership thus seems to provide a simple and intuitively appealing explanation for the incidents of physical copy ownership.²⁰⁰

However, there are evident limits to the utility of such a descriptive explanation in determining how to adapt the law to fundamental changes in the environment. That is, the descriptive claim may be entirely true, yet neither shed light on the proper future direction of copyright law, nor conflict with the other normative justifications advanced for the existing distribution of rights. The idea that these incidents of copy ownership are tied to conventional understandings of physical property ownership does not seem to help us much when we are trying to figure out how, if at all, they should apply to copies that are not physical. Thus, such a descriptive explanation for the incidents of copy ownership would appear not to answer the question that we are primarily concerned with, namely, whether and how to translate the incidents of physical copy ownership to the digital online environment.

At the same time, however, we should not be too quick to dismiss possible insights derived from such a descriptive view. In

198. See discussion *supra* Part II.B.2.

199. *E.g.*, lending rights.

200. Note that this could also explain some of the uneasiness we feel about shrink-wrap contracts as applied to physical property. For example, imagine that your phone book came shrink-wrapped, along with a contract stating that, by removing the shrink-wrap and using the phone book, you agree to certain contractual terms regarding the use, resale, etc. of the phone book. Even apart from objections that could be raised based on contract law (for example, lack of voluntariness, etc.), there is some sense in which imposition of such contractual terms on personal property conflicts with deeply held understandings about what it means to own personal property.

particular, it is at least worth asking the following question: if the incidents of physical copy ownership are based on conventional understandings of physical property ownership, do we have corresponding understandings about digital property ownership that might play a role in our analysis? That is, do we have corresponding intuitions about what it means to "own" a digital copy of a copyrighted work? And if so, should these intuitions, even if purely descriptive, affect the shape of copyright law in the same way intuitions about physical property ownership currently shape copyright law? There might well be very instrumental reasons for recognizing these intuitions, and it is worth taking at least a quick look at these questions.

As to the first question, we might expect conventional understandings of ownership specific to digital copies to be relatively underdeveloped, because digital copies are a relatively recent phenomenon. Certainly any conventional understandings that do exist would probably not be as firmly ingrained as the understandings we hold about physical property, which has been around for centuries. At the same time, however, I think it is safe to say that, as a purely descriptive matter, Internet users in a relatively strong sense do in fact think of digital copies in their possession as their "property." I admit that I have no surveys to prove this assertion as an empirical matter, but I believe it is supported by common experience.²⁰¹ The digital pattern of ones and zeros that I download to my computer seems, in some very real sense, "mine," in that I have physical dominion over it and no other indicia prevent me from exercising this dominion. Possession, after all, has historically been one of the most fundamental bases of ownership.

A couple of examples may serve to help support, or at least lend some shape, to this observation. As an initial matter, it seems pretty clear that authorized copies of digital works would be considered personal property in a relatively strong sense. Thus, say that you pay for and download a copy of an article from the

201. Indeed, one of the reasons the Ninth Circuit's decision in *MAI* has raised such a sustained howl of protest is perhaps because it runs directly against such understandings. Regardless of the overall theory one holds about copyright law in general, there is something very intrusive about the idea that simply calling up on screen a document resting on my computer in some way violates some unknown third party's rights.

Internet. I think that it is safe to say that most individuals would consider that copy to be their property, that is, most would feel that they have some ownership interest over that particular copy of the copyrighted work (putting aside, for now, the precise scope of that interest). There it sits in a pattern of ones and zeros on your hard drive, which you clearly own; you paid for it, and nothing, practically speaking, keeps you from doing what you want with it.²⁰² Nothing indicates that you do not own that copy in some relatively strong sense. Thus, it seems clear that the fact that a copy takes digital form does not, by itself, prevent it from being regarded as a piece of personal property.

Note, further, that this property interest appears to carry over even if the copy is unauthorized. Say, for example, that a friend e-mails you a digital copy of a Far Side cartoon. You know that it is highly unlikely that your friend obtained from Gary Larson the right to send you a copy, so it is quite likely that, absent some valid defense, the copy is an infringing copy.²⁰³ Yet, many of the same considerations apply. Again, there it sits on your computer hard drive, which you own. You possess the copy, and nothing indicates that the copy is not, in some strong sense, your property. Consider, further, how you would feel if another friend, while using your computer, accidentally deleted the cartoon from your computer. Would you feel as though you had been deprived of something that was your property? My sense is that most probably would. There may be some underlying unease from the fact that the copy may not be an authorized copy. Yet this feeling can still be consistent with a feeling that you have certain rights in that particular, if unauthorized, copy of the copyrighted work. To take a physical property example, say that you purchase an unauthorized, bootleg concert tape.²⁰⁴ Again, I would claim that most individuals would

202. Note that this would not be the case if certain technological protection mechanisms were implemented to restrict usage. It is an interesting question to what extent individuals would view such copies as their property.

203. One might question whether it even makes sense to think of the digital copy, the magnetic pattern of ones and zeros, as a piece of physical property. After all, the hard drive is the property, and the digital pattern is merely an arrangement of magnetized particles sitting on the drive. Without getting into the metaphysics of this, I would observe that this same issue is by no means unique to digital copies. For example, audio cassettes and VCR tapes are physical substrates upon which magnetic (though analog) patterns are imbedded.

204. Although live performances are not "fixed" and are thus not, as a general matter,

feel a strong property entitlement in that tape, regardless of the underlying validity of the copy, as a matter of copyright law.²⁰⁵

At the same time, these understandings or instincts about digital copy ownership are clearly not as robust or as firmly held as understandings about physical property ownership. In particular, the ubiquity of software licenses may have some impact on conventional understandings about digital copy ownership, at least with respect to software and perhaps, by extension, other digital works. Because software is nearly always licensed (at least purportedly²⁰⁶) to end users, individuals may be accustomed to having a more limited ownership interest in digital copies of software.²⁰⁷ (There may be reason to doubt, however, the extent to which such formal legal relationships have had an impact on consumer understandings about their legal rights in the software.) In addition, because conventional understandings about digital copy ownership are not as clearly entrenched, they are also potentially subject to change.²⁰⁸ Indeed, because digital copies are so new, understandings about digital copy ownership may yet change quite a bit as digital copies become more ubiquitous.²⁰⁹ Finally, there may be significant questions about the scope of any such property interests in light of copyright law, given the extent to which the use of digital copies implicates the copyright owner's exclusive right to

copyrightable, the underlying musical composition may be fixed. Furthermore, bootleg recordings of live performances are considered infringing under a separate provision of the Copyright Act. See 17 U.S.C. § 1101 (1994).

205. Note that unauthorized copies of copyrighted works can be impounded. See *id.* § 503. However, until such an action is successfully brought against the object to be impounded, ownership, as conventionally understood, rests with the copy owner. Note further that this situation is distinguishable from the situation in which the actual physical copy is stolen and the purchaser knows that it was stolen. Under the latter situation, certain rules about ownership of stolen property might possibly apply. The distinction here, however, is the distinction between infringement of the "work" and theft of a "copy." In the infringement situation, there is no issue regarding who actually owns the physical property.

206. Many of the licenses are shrink-wrap licenses, and thus raise the familiar concerns about enforceability. See, e.g., *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1453 (7th Cir. 1996); Lemley, *supra* note 160.

207. Note that a license to use the work is not inconsistent with ownership of the particular copy of the work. See, e.g., 17 U.S.C. § 117 (1994 & Supp. V 1999).

208. Ubiquitous technological protection of copyrighted works, or "fared use," see Bell, *supra* note 114, might seriously affect the extent to which individuals regard digital copies as their property.

209. See, e.g., WHITE PAPER, *supra* note 10 (arguing for education of the public regarding copyright law).

reproduce. This latter question is, of course, the subject of this Article. Despite these limitations on viewing digital copies as personal property, however, the previous examples indicate that there remains some underlying sense in which individuals consider digital copies in their possession to be their property.

Taking as a given for the moment that such understandings do exist, the next question is what relevance, if any, they hold for copyright law in general. One possibility is that they should have no relevance. That is, it may well be true that existing copyright law evolved around conventional understandings about physical property ownership. Yet this, by itself, does not help us determine whether such understandings should be respected in the digital context. If there exist strong arguments against recognizing such understandings (for example, if such a recognition would result in a radical destruction of incentives to create copyrighted works), then these conventions should clearly give way. Over time, individuals will come to understand the requirements of the law, and conventions will change and adapt. Thus, it is at least quite clear that we cannot rest solely on the existence of these understandings, and that we must still engage in a more detailed examination of their theoretical justifications.

Yet these understandings may have some relevance in our consideration of such justifications, and in particular in our consideration of their implementation.²¹⁰ For example, conventional understandings about "ownership" are extremely relevant to questions of enforcement. Enforcement costs are an especially relevant consideration in copyright law, because they are especially high. Unlike many other areas of civil liability, copyright infringement is often extremely difficult to detect, particularly if done by many individuals, each on a limited basis.²¹¹ Common experience teaches, moreover, that potentially infringing activity is often quite widespread. To the extent that copyright law varies

210. See, e.g., Stephen L. Carter, *Custom, Adjudication and Petrushevsky's Watch: Some Notes from the Intellectual Property Front*, 78 VA. L. REV. 129, 130-31 (1992) (arguing that industry norms may not be efficient or desirable); Richard A. Epstein, *International News Service v. Associated Press: Custom and Law as Sources of Property Rights in News*, 78 VA. L. REV. 85, 128 (1992) (arguing that courts should, under certain circumstances, enforce well-established industry norms regarding intellectual property rights).

211. By contrast, it is usually pretty clear when someone has stolen your car.

significantly from conventional understandings about the incidents of digital copy ownership, enforcement costs will be high.²¹² Even more problematically, a significant divergence between norms of usage and legal requirements may lead to a disrespect for the law.²¹³ To be sure, in many areas there is often a divergence between law and practice. And, indeed, the existence of substantial unenforced liability does not mean that the legal rule should be abandoned. Things might well be quite a bit worse without the partially enforced liability. Indeed, many of the existing copyright laws are rather counterintuitive and generally unenforced.²¹⁴ Yet where that divergence becomes too wide, there may be reason to rethink them.²¹⁵

Relatedly, such understandings may also be relevant in our evaluation of how best to allocate entitlements between copy owners and copyright owners in light of concerns about economic efficiency, which will be addressed in more detail below. One requirement of an efficient market is that consumers have accurate and complete information about the goods that they are purchasing. If most consumers have strongly held beliefs about the rights they have when they obtain a digital copy of a copyrighted work, and if such beliefs are at odds with the underlying legal regime, then this may lead us to reevaluate the allocation of such rights. One possibility, of course, would be to attempt to educate consumers about the scope of their rights, in order to eliminate this information asymmetry. Another possibility might be to assign the legal entitlement so as to promote more accurate information about the nature of the goods being acquired, in particular the scope of rights being acquired.²¹⁶ This possibility will be discussed in more detail below.

212. The White Paper appears to recognize this in its recommendation that the government engage in a campaign to educate the public about their copyright obligations. See WHITE PAPER, *supra* note 10.

213. See Lemley, *supra* note 14, at 578; Litman, *supra* note 3, at 41.

214. See Litman, *supra* note 3, at 41 (critiquing copyright law on precisely this front).

215. See *id.* at 48.

216. See, e.g., Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 7 (1989) [hereinafter Ayres & Gertner, *Filling Gaps*]; Ian Ayres & Robert Gertner, *Majoritarian vs. Minoritarian Defaults*, 51 STAN. L. REV. 1591 (1999) [hereinafter Ayres & Gertner, *Majoritarian vs. Minoritarian*]; Randy E. Barnett, *The Sound of Silence: Default Rules and Contractual Consent*, 78 VA. L. REV. 821 (1992).

At the very least, the above discussion indicates that the possible existence of strongly held norms of copy ownership should be a factor to consider in deciding whether and how to translate these incidents of copy ownership into the digital environment. Thus, even though this descriptive explanation for the incidents of copy ownership does not provide us with a complete justification, at a minimum it sheds some light on aspects of the incidents of copy ownership. Moving on from this explanation, I now turn to some of the normative justifications for the incidents of copy ownership.

B. Balancing Incentives and Access

One possible normative justification for preserving the conventional understandings described in the preceding section can be found in the argument that preservation of the incidents of physical copy ownership is necessary to preserve the balance of access and incentives underlying copyright law more generally. As indicated above, a number of commentators have suggested that the rights enjoyed by owners of physical copies should be functionally translated into the digital, online²¹⁷ environment.²¹⁸ According to these commentators, upon downloading a digital copy of a copyrighted work, I should be permitted to access that work as many times as I wish, whether or not literal copies of that work are made in the RAM of my computer.²¹⁹ Similarly, I should be permitted to transfer that work to a third party over the Internet, so long as I am careful to delete my own copy of the work, even though during the course of such a transaction, copies of the work are made.²²⁰ In short, digital works should be treated, to the extent possible, as functional equivalents of physical copies; copyright law

217. Note that here (and elsewhere) I am focusing only on digital copies that have been transmitted over a digital network. That is, I am not referring to digital copies that are fixed in a transferable medium, such as a CD or a game cartridge. Indeed, the Copyright Act itself recognizes a distinction between such copies and more fixed copies. See 17 U.S.C. § 109 (1994) (including video game exceptions to public display and rental restrictions).

218. See Elkin-Koren, *supra* note 112, at 273; Litman, *supra* note 3, at 40.

219. See Litman, *supra* note 3, at 46 (calling for an express privilege for ephemeral copying: "If temporary copies are an unavoidable incident of reading, we should extend a privilege to make temporary copies to all.").

220. See Elkin-Koren, *supra* note 112, at 273; cf. Lemley, *supra* note 14, at 584.

should preserve in the online environment rights broadly equivalent to the ones enjoyed by owners of physical copies.

Underlying this view is a belief that existing copy owner rights of access and transfer are not completely explained by the common law concern with restraints on alienation of physical property (the view addressed in the previous section), but instead, or in addition, play an important role in copyright law as a whole. Although commentators generally are not explicit in laying down the source of this belief, it is possible to flesh out this idea a bit more. This view appears to be based, at least in part, upon a notion that these copy owner rights play a role in preserving some level of broad consumer access to copyrighted works in the aggregate.²²¹ That is, the ability to check out a book from a library, to browse through a book in a bookstore, to read a book that you own, to buy a book used, and to borrow a book from a friend—together, these “rights” result, in practice, in a level of consumer access to copyrighted works that is worth replicating in the digital, online environment.²²² They are responsible for some of the free access to works, and the attendant dissemination of ideas, that currently exists in the physical world. In order to preserve some level of public access, then, copyright law should construct online parallels to the rights to browse and to borrow.²²³

221. See Netanel, *supra* note 11, at 373 (describing some minimalists who insist that longstanding, predigital limitations to copyright owner prerogatives must be maintained even as “[d]igital network technologies will radically alter copyright markets”). But see Litman, *supra* note 16, at 243 (disavowing attempts to maintain previous balance). As Litman noted: “Now, I would surely argue that my claim to defend the old balance is the more genuine one. But, the truth is, we *all* need to give it up. That balance is gone. Whatever way we go, we will need to find a different balance.” *Id.*

222. See Elkin-Koren, *supra* note 112, at 272 (“Browsing, however, is crucial for any notion of progress.”); Mark Gimbel, Note, *Some Thoughts on the Implications of Trusted Systems for Intellectual Property Law*, 50 STAN. L. REV. 1671, 1681 (1998) (“But the more important justification—the one that has most often been advanced in defense of the [first sale] doctrine—is that it promotes access to information.”).

223. See Netanel, *supra* note 11, at 372:

Minimalist critics . . . insist that the “free use zone” of the hard copy world, including such uses as reading, viewing, or listening to an authorized copy of a work, browsing in a bookstore or newsstand, lending a book or sound recording to a friend, and borrowing from a public library, must be maintained in cyberspace. They argue that the extension of copyright to the digital equivalents of such uses would disturb copyright’s traditional balance and would amount to an unwarranted and unprecedented incursion into individual liberties.

As a theoretical matter, this view draws some support from what Neil Netanel has termed an economically minimalist view of copyright law.²²⁴ Under this view, which appears to be the instrumental view most often expressed by the courts and Congress when speaking about copyright law, copyright law protects copyrighted works in order to give authors an incentive to engage in creative activity. However, the level of copyright protection should be just sufficient so as to give rise to the creative activity, and no more. Any more protection would have the effect of impeding widespread access to works that would already have been created. So, for example, if providing ten years of copyright protection would provide sufficient incentive for creation of a particular work, any more protection would simply have the undesirable effect of depriving the public as a whole of free (or at least lower-cost) access to the work thereafter. The minimalist view thus looks at copyright law as effecting a balance of incentives and access, one that should be carefully preserved, particularly against the claims of copyright holders for greater control over their works.

Although the minimalist framework, as a theoretical matter, accurately captures the essential considerations underlying copyright law (that is, the basic balance between access and incentives), lack of information and numerous practical difficulties in applying the framework serve to limit its ability to generate clear or effective results. The primary weakness of this theoretical position, as even some of its proponents seem to realize,²²⁵ is that it is nearly impossible, at least with the tools currently available to us, to determine how much copyright protection is "enough" to induce an "acceptable" level of creative activity. With respect to a single work, it might be possible *ex post* to estimate how much of a return would have been sufficient to lead the author to engage in the creative activity. (For example, we can ask roughly how much

224. *See id.* at 370.

225. *See, e.g.,* Litman, *supra* note 3, at 31-32:

Indeed, it is conventional to argue that copyright holders should receive only such incentives as are necessary to impel them to create and disseminate new works. That analysis is less than helpful, though, as appears when one tries to quantify the degree to which incentives are required. The questions "How many people who do not currently compose symphonic music would do so if symphonic music paid better?" and "How many current composers would write more stuff if there were more money in it?" turn out to be imponderable and untestable.

the author expected she would get.) Ex ante, however, authors in the aggregate must make decisions about how to allocate their efforts based upon the range of possible returns and the risks of failure.²²⁶ For resources to be allocated effectively to creative activity, authors must have some information ahead of time about their likely returns. However, it is nearly impossible to determine ahead of time how much of a return is enough to generate an "acceptable" level of creative activity.

In any event, the minimal incentive argument is rarely deployed in such a work-specific manner. Instead, the economic minimalist view attempts to strike a balance between incentives and access in only the roughest fashion, based on a broad assessment of whether there are "enough" works being created and whether free access is being restricted "too much." Typically, the basis for comparison is the status quo. That is, the question is whether the existing state of affairs, in some rough sense, is broadly acceptable as a whole.²²⁷ If it is, then we should endeavor to preserve the existing balance; if it is not, then we should expand or contract copyright protection to arrive at a new "balance." The minimal incentive argument thus often takes as its starting point existing institutions and market structures.

Although this approach provides a useful rough guide, it is also limited in a number of ways. First, there is little in the economic minimalist position to tell us whether the existing balance is an appropriate one or whether any adjustment would lead to a better state of affairs. Rather, the most that can be said about the existing balance is that it is the existing balance. If that balance is not intolerable, then there may be reasons not to feel any great urgency one way or the other. There may indeed be something to be said about incremental development of the law and a reluctance to needlessly disturb settled arrangements and expectations. At the very least, such an approach permits us to rely on existing market structures and to evaluate, on a case-by-case basis, new developments as they come along. Yet without any way of assessing even the direction of such incremental development, the minimalist view unfortunately provides little help in deciding difficult cases. Indeed,

226. See Goldstein, *supra* note 132, at 82.

227. See, e.g., Breyer, *supra* note 122, at 281.

opinions about such cases will differ precisely according to whether one believes the existing balance is tilted too heavily towards authors or consumers.²²⁸

This problem is even more acute under conditions of rapid technological change. Indeed, the prospect of trying to "maintain" any given balance of incentives and access seems an almost impossible task under such conditions. Over the past century, we have witnessed numerous technological advances that have lowered dramatically both the cost of disseminating copyrighted works and the cost of copying them. We have also witnessed the introduction and development of dramatically new forms of media. Undoubtedly, these technological changes have had some effect on the balance of incentives and access in copyright law. New institutions have arisen to take advantage of these new developments. Yet copyright law itself has shown little ability to "maintain," in any meaningful sense, a given level of incentive and access in the face of such change, beyond, as mentioned before, ensuring that the balance is not intolerably tilted to one side or the other. Accurate maintenance of a given "balance" in the face of a new technology requires accurate information about the effect of such technology, and such information is notoriously difficult to come by.

In fact, it is probably much more accurate to say that the level of incentive and access is a constantly shifting function of copyright law and many other factors, such as technology, enforcement, and general norms of usage.²²⁹ Attempts to maintain some preexisting "balance" in the face of rapid technological change seem to pose a very real risk of locking in existing institutions and preventing the development of new markets that would take advantage of novel features of the new environment. At most, the idea of maintaining a balance has relevance only in those rare cases where technological changes clearly and inappropriately shift the balance one way or the other—for example, if a new technology would essentially destroy the incentives for the creation of copyrighted works.²³⁰ Yet

228. This can also be affected by views on related, noneconomic issues, such as authors' rights.

229. See I. Trotter Hardy, *Contracts, Copyright and Preemption in a Digital World*, 1 RICH. J.L. & TECH. 2 (1995), at <http://www.richmond.edu/jolt/v1i1/hardy.html>.

230. An example on the other end of the spectrum would be the recent extension of the copyright term by another 20 years (to life plus 70 years), for both future and existing works.

past experience teaches that the net impact of a technology is extremely difficult to predict ahead of time. The same technologies that lower copying costs often dramatically lower distribution costs.

So, for example, one commentator has predicted that

If copyright owners are able to charge for all browsing, fewer people will be able to gain even limited access to information. While, under the current regime, users are able to freely browse through books in the bookstore or through different sections of a newspaper, a regime that makes browsing an infringement would restrict such behavior.²³¹

Yet this ignores the fact that copyright owners and distributors of copies already have many nonlegal mechanisms for restricting browsing. Book publishers can shrink-wrap their books. Movie producers can exclude individuals from "browsing" their films before paying for a ticket. Yet bookstores permit (indeed encourage) browsing, and movie producers offer a nearly unending stream of free previews. Moreover, this view does not account for ways in which new market structures may evolve to give individuals even greater access to information than before. For example, access to news on the Internet is greater than ever before, despite the fact that inexpensive technologies exist that would enable the *New York Times*, say, to exclude readers from accessing the online version without paying. This is no guarantee that the economics will not change such that access will be restricted in the future. But it does indicate that incentives exist for copyright owners to make access available (whether for free or for a cost) to the public in general. More broadly, it suggests that predictions about future market structures are fraught with uncertainty.²³²

See Sonny Bono Copyright Term Extension Act, Pub. L. 105-298, 112 Stat. 2827, codified at 17 U.S.C. § 302 (1994 & Supp. V 1999). It is difficult (and impossible, with respect to existing works) to see how the addition of 20 years to the already lengthy copyright term would have any effect on incentives, given the minuscule present value of any such (highly speculative) future revenue streams. Thus, in this extreme case as well, the minimalist view would provide a rather solid answer.

231. Elkin-Koren, *supra* note 112, at 272.

232. Indeed, this is reflected in the diametrically opposed reactions to the net impact of the Internet. Copyright owners typically view the Internet in somewhat apocalyptic terms, as the world's biggest copying machine. See WHITE PAPER, *supra* note 10, at 64-66. Many commentators, by contrast, worry that Internet technology will in fact have exactly the

This suggests, then, that the minimal incentive argument unfortunately does not provide a very useful justification for the existing bundle of copy owner rights, or perhaps more accurately, provides an adequate justification for now, but a more limited one for helping us determine how copyright should respond to the dramatic changes in copying technology.

At the same time, however, the minimal incentive position, even if unable to generate more specific results, may be able to provide some rough guidance, and this may be all that we can reasonably expect from any theoretical framework, given the dramatic changes in technology. That is, even though we may not be able to provide a strong justification for the existing balance of access and incentives, and even though we may not be able to predict accurately how this balance might be affected by changes in technology, where it is clear that a new technology will have a significant impact on incentives—for example, by entirely destroying incentives to create—then the minimal incentive argument will provide clear answers. Thus, at the very least, we may be able to use the minimal incentive position to ensure that, at bottom, the basic incentive-providing role of copyright law remains protected. Moreover, to the extent that the minimalist framework counsels a more conservative approach to expanding copyrights in the face of changing technology (based on the idea that copyright law should only provide “enough” protection, and no more), the minimalist approach suggests that Congress and the courts at least should wait for more information before acting. After all, past claims about the incentive-destroying character of new technologies have largely been unfounded. More fine-tuned judgments, however, cannot easily be derived from this framework.

C. Maximizing Returns and Minimizing Transactions Costs

An alternative to the minimalist framework is the economic “maximalist” framework.²³³ Like the minimalists, maximalists

opposite effect, enabling copyright owners to exert unprecedented control over the use of their works. See Elkin-Koren, *supra* note 112, at 272; Lemley, *supra* note 14, at 549. Uncertainty caused by new technology frequently acts as a Rorschach test, reflecting one's own hopes and/or fears about the impact of such technology.

233. Netanel calls this the “neoclassicist” approach. See Netanel, *supra* note 11, at 286-87

adopt an instrumental approach to copyright law, but they differ in important respects. Instead of focusing on the minimum incentive necessary to induce the creation of creative works, maximalists start from the position that authors should be entitled to control nearly all economically productive uses of copyrighted works.²³⁴ By internalizing all of the potential benefits of the work, copyright law can thus facilitate the economically efficient allocation of resources to creative activity.²³⁵ Broad access to creative works can be maintained, despite the broad scope of copyright protection, through licensing.²³⁶ That is, extensive author control over the use of copyrighted works is not problematic, because subsequent uses of creative works can be licensed by those who wish to use the works, and the only question is the proper price.²³⁷

Under such circumstances, the primary limits on the scope of copyright law come from the need to reduce transactions costs associated with licensing uses of the work. For example, in certain cases involving small scale, personal uses of a work (for example, copying small portions of a work), the transactions costs associated with securing a license (for example, locating the copyright owner, negotiating a license, etc.) would likely outweigh the value of that use to the user. Under such circumstances, the maximalist view

("Neoclassicists would accordingly treat literary and artistic works as 'vendible commodities,' best made subject to broad proprietary rights that extend to every conceivable valued use. In this manner, neoclassicists contend, market pricing can direct resource allocation for the marketing and development of existing creative expression in an optimally efficient manner.") (citation omitted).

234. See Goldstein, *supra* note 132, at 82-83, 85; Netanel, *supra* note 11, at 286.

235. See Gordon, *supra* note 84, at 1389; Edmund Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265 (1977); Netanel, *supra* note 11, at 286.

236. See, e.g., Bell, *supra* note 114, at 596-600; I. Trotter Hardy, *Property (and Copyright) in Cyberspace*, 1996 U. CHI. LEGAL F. 217. More specifically, licensing and perfect price discrimination are seen as ways to minimize the deadweight loss from consumers who would be willing to pay more than the marginal cost of the work, but less than the single, profit-maximizing price that would otherwise be set by the copyright owner. See, e.g., Fisher, *Property and Contract*, *supra* note 2, at 1234-40 (discussing the economic advantages of price discrimination); Wendy J. Gordon, *Intellectual Property as Price Discrimination: Implications for Contract*, 73 CHI.-KENT L. REV. 1367 (1998) (noting limits of price discrimination justification).

237. Maximalists also tend to downplay the extent to which copyright confers any market power, pointing to the fact that substitutes exist for many copyrighted works. See Goldstein, *supra* note 132, at 83-85; Landes & Posner, *supra* note 140, at 328; see also Edmund W. Kitch, *Elementary and Persistent Errors in the Economic Analysis of Intellectual Property*, 53 VAND. L. REV. 1727, 1729-38 (2000).

dictates that copyright law should step in and transfer the right to the user (for example, through the mechanism of fair use).²³⁸ Some commentators have also extended this rationale to cover those instances when a license is refused for noneconomic reasons, such as to prevent criticism or parody.²³⁹ Aside from limited circumstances such as these, however, copyright owners should be given broad rights to control their works and the market should be allowed to provide the appropriate balance of incentives and access.²⁴⁰

The advantage of the maximalist view over the minimalist view is that the maximalist approach does not require any attempt to "maintain" any existing balance of access and incentives in the face of rapid technological change. Nor does it require express judgments about how much protection is "enough" to give rise to an "adequate" level of creative activity. Instead, the maximalist view trusts that the market will evolve to a new and appropriate balance with new markets and institutions, provided that initial entitlements are firmly set.²⁴¹ Thus, the maximalist framework holds out at least the possibility of providing clearer answers.

At the same time, it is important to note that the maximalist view, though perhaps "cleaner" as a theoretical matter, is seriously incomplete as a copyright theory. As an initial matter, its focus on economic efficiency is subject to many of the standard critiques of efficiency as a proper metric.²⁴² In addition, the maximalist

238. Goldstein, *supra* note 132, at 83-85; Gordon, *supra* note 2, at 1605.

239. See Gordon, *supra* note 2, at 1605; see also Lydia Pallas Loren, *Redefining the Market Failure Approach to Fair Use in an Era of Copyright Permission Systems*, 5 J. INTELL. PROP. L. 1 (1997) (highlighting problem of positive externalities).

240. To some extent, though not completely, the difference between minimalists and maximalists is a difference over the means of accomplishing the same (or at least a similar) goal. Both want to provide consumers with the greatest level of access to the greatest number and variety of creative works. Minimalists believe that this is best accomplished through ensuring broad access to copyrighted works, viewing existing incentives as generally sufficient for the production of works. Maximalists, by contrast, believe this is best accomplished through ensuring broad incentives to create many copyrighted works, viewing licensing through the market as generally sufficient to ensure access once the works are created.

241. See Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. LEGAL F. 207, 208, 216.

242. Examples include its blindness to initial distributions of wealth, and its use of "willingness to pay" as a measure of value, its reliance on the pricing mechanism to accurately direct optimal investment in resources. See James Boyle, *Cruel, Mean, or Lavish?*

framework has been criticized for failing to account adequately for the extent to which creative works are based upon, and draw from, prior creative works.²⁴³ An optimal copyright scheme, in setting the scope of entitlements, would balance incentives for creating original works against incentives for creating follow-on works.²⁴⁴ The maximalist framework, by contrast, focuses primarily, if not exclusively, on the original work, and leaves the creation of the follow-on work to the licensing regime. Others have critiqued the maximalist view for failing to consider significant positive externalities from free access, which are not captured by a pure licensing regime.²⁴⁵ Still others have critiqued the maximalist claim that licensing will adequately address the problem of providing sufficient access to copyrighted works.²⁴⁶

Perhaps most seriously, however, the maximalist view does not take into account noneconomic values. Instead, the maximalist position views copyrighted works primarily as vendible commodities and focuses almost exclusively on ensuring that a wide variety of such works is produced at reasonably low cost. This last feature is particularly significant, because copyright law, as discussed in more detail below, expressly embodies a number of noneconomic values (for example, criticism, parody, and the First Amendment). Moreover, numerous commentators have advanced powerful additional noneconomic theories, which shed interesting light on the proper shape and scope of copyright law.²⁴⁷ Thus, although the maximalist view provides a useful tool for evaluating some

Economic Analysis, Price Discrimination and Digital Intellectual Property, 52 VAND. L. REV. 2007, 2033 (2000); Julie E. Cohen, Lochner in Cyberspace: *The New Economic Orthodoxy of "Rights Management"*, 97 MICH. L. REV. 462, 510-11 (1998) (criticizing the maximalist views of "cybereconomists"); Gordon, *supra* note 2, at 1605 (discussing market failure in the context of the fair use doctrine); Neil Weinstock Netanel, *Market Hierarchy and Copyright in Our System of Free Expression*, 53 VAND. L. REV. 1879 (2000).

243. See Boyle, *supra* note 242, at 2031; Lemley, *supra* note 145, at 1037-38; Harvey S. Perlman, *Taking the Protection-Access Tradeoff Seriously*, 53 VAND. L. REV. 1831, 1835-36 (2000).

244. See Landes & Posner, *supra* note 140, at 335; Lemley, *supra* note 145, at 1037.

245. See Julie E. Cohen, *Copyright and the Perfect Curve*, 53 VAND. L. REV. 1799, 1812 (2000); Loren, *supra* note 239.

246. See generally Yochai Benkler, *An Unhurried View of Private Ordering in Information Transactions*, 53 VAND. L. REV. 2063 (2000); Fisher, *Property and Contract*, *supra* note 2; see also Boyle, *supra* note 242, at 2025-33; Cohen, *supra* note 245, at 1811; Gordon, *supra* note 236, at 1387.

247. See *infra* notes 278 and 282.

economic aspects of copyright law, one must still consider the limitations noted above, as well as potential noneconomic justifications.²⁴⁸ This Article considers such justifications in the following section.

Despite these significant limitations, the maximalist view sheds some interesting light on the incidents of copy ownership. Under the maximalist view, many of the existing incidents of copy ownership can be explained as arising from the need to reduce transactions costs. For example, under the maximalist view, copyright owners should in theory be able to charge a royalty every time a copy owner (or other person) reads a book or accesses a particular copy of a copyrighted work.²⁴⁹ This would permit copyright owners to fully capture the value of a particular copy to that particular consumer (that is, those who read more, pay more), thereby maximizing the total economic return on the work through greater price discrimination.²⁵⁰ However, under the maximalist view, copyright law should not in fact extend so far, because the transactions costs involved in licensing every reading of a particular work likely outweigh the value of that reading. In addition, the extremely high cost (and low effectiveness) of enforcement of such a right further undermines the efficiency of such a rule. Copyright law thus properly transfers the right to read to the owner of the copy, leaving the copyright owner only the ability to recoup such value indirectly through the sale of copies.²⁵¹

Similarly, the ability to transfer a given copy of a copyrighted work may also be justified as responding to a concern over

248. See Gordon, *supra* note 2, at 1606 (recognizing noneconomic reasons for market failure); Robert P. Merges, *Are You Making Fun of Me?: Notes on Market Failure and the Parody Defense in Copyright*, 21 AIPLA Q.J. 305, 310 (1993) (noting that in a parody transaction "refusal to license is based on a noneconomic motive"); Netanel, *supra* note 11, at 310 (identifying a branch of neoclassicism that derives support from "new institutional economics").

249. See Litman, *supra* note 3, at 32 ("If we rely on the simple economic model, we are led to the conclusion that every enhancement of the rights in the copyright bundle is necessary to encourage the creation of *some* work of authorship.").

250. Note that this claim has come under strong attack recently from a number of commentators. See sources cited *supra* note 243.

251. This justification, like many economic attempts to explain preexisting rules, has a certain "just so" quality to it. See Landes & Posner, *supra* note 140, at 328. Certainly the claim is not that the enacting legislature in fact considered these issues in coming up with the operative legal rules. Rather, the claim is that, whatever the motivating factor, these rules can be understood to have certain economic functions.

transactions costs. Certainly, lending or selling a book to a friend would seem to constitute a use of that work that would be too costly to license and too difficult to enforce. However, as such activity increases in scale, concerns about transactions costs diminish, and the maximalist view lends support to conferring a right upon the copyright owner. So, for example, under the maximalist view, the limits on commercial lending of software and recorded music may be justified, not only because they prevent facilitation of piracy, but also because they permit authors to appropriate the economic value that would arise from lending a work to the public.²⁵² Thus, we would expect maximalists to support extension of such a public lending right to videotapes and even perhaps to books.²⁵³ In each case, concerns about transactions costs are minimized because institutions (video rental stores and libraries) exist to reduce the cost of licensing such use.²⁵⁴

The incidents of physical copy ownership may also serve an additional, closely related economic function by reducing information costs through clearly delineating a standard, default bundle of "rights" acquired by the copy owner in the sale or transfer of a physical copy. That is, purchasers of physical copies may hold certain understandings about what it means to own physical property.²⁵⁵ To the extent copyright law respects such understandings, this facilitates the development of a standard default bundle of rights and lowers potential enforcement problems. So, for example, when I purchase a CD, I know relatively clearly what it is I am purchasing. A standard, clearly identified bundle reduces information and bargaining costs. Moreover, where the bundle of rights is a bundle that every purchaser presumably desires, then it may reduce costs simply to attach the bundle automatically to the standard sale transaction. Conversely, attempts to significantly change existing patterns of ingrained behavior could be quite costly

252. See Kernochan, *supra* note 163, at 148-270.

253. Books may be a special case, insofar as libraries are expressly subsidized by the Copyright Act, presumably because of their social value in serving as a repository for, and facilitating public access to, books. Cf. S.J. Liebowitz, *Copying and Indirect Appropriability: Photocopying of Journals*, 93 J. POL. ECON. 945 (1985) (providing evidence that journal publishers price discriminate). Note, however, that a strict maximalist view would require that these costs be licensed as well.

254. See Merges, *supra* note 184, at 1302-03.

255. See *supra* Part III.A.

and, in the end, unsuccessful (at least in the physical environment). Accordingly, under a maximalist view, the incidents of copy ownership may be explained by such potential enforcement costs.

The maximalist view suggests, then, that whether many of the incidents of physical copy ownership should be translated into the digital environment depends largely on the likely degree of transactions costs. Thus, for example, the ability to access, or "read," a digital copy in one's possession should not be translated into the digital environment if mechanisms exist or can be developed that would drastically lower the cost of obtaining a license to access or read. Similarly, the ability to sell or otherwise transfer a digital copy should not be translated into the digital environment if cheap mechanisms could be developed to monitor and restrict such transfers. If such technologies can be developed, then the transactions costs associated with licenses may be so low that the underlying rights should properly be retained by the copyright owner. That is, there may be no reason to deviate from the default maximalist position that such rights should belong to the copyright owner.

Indeed, several commentators have argued precisely for this result.²⁵⁶ Moreover, the White Paper (and by extension the DMCA, which was based upon the White Paper's recommendations) enthusiastically embraces the conclusion that the Internet in fact will drastically lower the cost of licensing. According to the White Paper, copyright owners, using the technology of "trusted systems,"²⁵⁷ will soon be able to cheaply monitor levels of consumer usage of digital copies (for example, the number of times a copy is accessed) and assess "micro-charges" for such usage (for example, by debiting an electronic "e-cash" account).²⁵⁸ Digital copies will

256. See Bell, *supra* note 114, at 564-67, 618-19; see also Hardy, *supra* note 236.

257. See Julie E. Cohen, *Some Reflections on Copyright Management Systems and Laws Designed to Protect Them*, 12 BERKELEY TECH. L.J. 161 (1997); Mark Stefik, *Shifting the Possible: How Trusted Systems and Digital Property Rights Challenge Us to Rethink Digital Publishing*, 12 BERKELEY TECH. L.J. 137 (1997) (discussing the technology of trusted systems).

258. Julie Cohen has discussed a number of noneconomic concerns associated with such systems. See Cohen, *supra* note 150; see also Bell, *supra* note 114, at 564-67 (evinced a more favorable view of trusted systems); Pamela Samuelson, *Will the Copyright Office be Obsolete in the Twenty-First Century?*, 13 CARDOZO ARTS & ENT. L.J. 55, 58 n.18 (1994) (discussing documents that "rat" on you).

soon have "copyright management information" attached to them, which will tell users how and where to contact the copyright owners in order to secure licenses. Similarly, systems may be created in the future that would monitor or control the transfer of digital copies. Thus, according to the White Paper, the potentially dire implications of *MAI* are in fact not terribly worrisome, because users will still be able to access, use, and transfer digital documents by obtaining low-cost licenses from the copyright owner. Similarly, and for the same reasons, the scope of fair use online should be appropriately reduced in the digital context to account for the reduction in licensing costs.²⁵⁹ Indeed, the DMCA, reflecting the views set forth in the White Paper, implements measures designed to give added support to the development of such a regime. More specifically, the DMCA gives added support to trusted systems by imposing liability for circumventing copy protection technology;²⁶⁰ by banning distribution of certain circumvention technologies;²⁶¹ and by protecting copyright management information from tampering.²⁶²

In staking out such a position, however, both the DMCA and the White Paper, even apart from the more fundamental critiques mentioned above, pass far too quickly over the potential problem of transactions costs and place entirely too much reliance on the development and implementation of new technology.²⁶³ Indeed, the maximalist approach to copyright law has been criticized for failing to take seriously the real-world impact of transactions costs, despite acknowledging their existence,²⁶⁴ and the White Paper appears to open itself up to precisely this criticism. As an initial matter, the White Paper provides scant support for its prediction about the future existence of low-cost licensing. Whether low-cost licensing (and the attendant technology to implement and enforce such) will in fact evolve requires a prediction about the future shape of technology, and as already noted, such predictions are notoriously

259. See Bell, *supra* note 114, at 571-73.

260. See 17 U.S.C. § 1201(a)(1) (Supp. V 1999).

261. See *id.* § 1201(a)(2).

262. See *id.* § 1202.

263. Note that I am focusing here on the transactions costs issue. The maximalist position is also open to more basic critiques regarding its use of economic efficiency as a metric and its failure to consider noneconomic values. See, e.g., Cohen, *supra* note 245, at 539-59.

264. See, e.g., *id.* at 497-504; Netanel, *supra* note 11, at 309-24.

difficult and error-prone.²⁶⁵ Although there are reasons to believe that such technology might develop, it is certainly unwise to rely too much on the development of such technology, particularly where a faulty prediction would result in substantial restrictions in the ability of consumers to access copyrighted works.

In addition, even if such technology develops, the cost of licensing may still be too high in relation to the value of certain uses to warrant a change in the distribution of legal entitlements. The value associated with reading or accessing a digital copy in one's possession may be quite low. In addition to the cost of negotiating a license, the potential user must also factor in the time needed to find the copyright owner and to secure permission from that owner. So, for example, assume that you receive a digital copy of an image by e-mail from a friend. The time and effort spent seeking a license to open that image may well exceed the minimal value associated with viewing that image, even if technological mechanisms exist to reduce the cost of such a transaction. If this is the case, the net result of the rule in *MAI* would simply be to prevent a mutually beneficial use of the image (or, more likely, the result would be widespread disregard of the operative legal rule).

In the face of such uncertainty about future technology, the maximalist framework generally prefers to err on the side of granting rights to the copyright owner. In part, the reasoning is that the cost of such an error will generally be less than an error in the other direction, because conferring the right on the copyright owner will at least permit the opportunity for the market to come up with private mechanisms to reduce the cost of licensing.²⁶⁶ By contrast, if the entitlement is conferred upon the user, then it is generally more costly for the copyright owner to contractually

265. See Richard P. Adelstein & Steven I. Peretz, *The Competition of Technologies in Markets for Ideas: Copyright and Fair Use in Evolutionary Perspective*, 5 INT'L REV. L. & ECON. 209, 210-17 (1985) (noting that the market-failure approach to fair use requires judicial prediction about what the market will look like). At the same time, however, such predictions are generally less difficult than the predictions about overall market structure required by the minimalist approach. See *supra* note 47.

266. Collective rights organizations such as the American Society of Composers, Authors, and Publishers (ASCAP) and the Copyright Clearance Center (CCC) are typically heralded as examples of private mechanisms that reduce transactions costs. See Merges, *supra* note 184, at 1295-96. However, such organizations are also subject to significant inefficiencies and concerns about monopoly power. See Netanel, *supra* note 11, at 376.

secure a promise not to engage in the activity from all consumers. Thus, it could be argued that, even if the net result of the technology is uncertain, copyright law should at least give the market a chance to work before transferring the entitlement.

There may be reasons, however, to believe that this approach is not warranted in the case of the right to read and/or transfer digital copies.²⁶⁷ Copyright owners in the digital environment, unlike similar owners in the physical environment, may well have an increased ability to secure compliance with use restrictions through technology.²⁶⁸ If a copyright owner wishes to charge a user for a certain amount of access to a digital work, it can do so more effectively in the online world, through implementing a technology that restricts such access.²⁶⁹ This ability to engage in self-help suggests that it may make sense to place the burden of implementing such measures on the copyright owner, rather than placing the burden to seek out a license more diffusely on those who happen to receive copies of the work.

In addition, such a requirement would avoid the problem of divergence between the conventional understandings discussed in the first section of this Part and the actual rights acquired by the user. That is, giving the copyright owner the right to control reading appears to run counter to established instincts and conventions about digital copies. We might, therefore, expect that such a move would raise substantial costs in terms of enforcement or in terms of widespread disregard of the operative legal rule, as users will not have adequate information about precisely what it is they have acquired. Or, more generally, such misinformation may have a distorting impact on the market. However, if technology limits what can be done with the copy, then information about the scope of the license is effectively disclosed and the possibility of mistake reduced.²⁷⁰ Thus, placing the burden of self-help upon the

267. See, e.g., Stanley Besen et al., *An Economic Analysis of Copyright Collectives*, 78 VA. L. REV. 383 (1992); Netanel, *supra* note 11, at 376-82.

268. Indeed, the possibility of such technological control has led some commentators to worry about possibly restricting the scope of such control in order to preserve some areas of free consumer access. See Cohen, *supra* note 257, at 981-82; Litman, *supra* note 3, at 46.

269. This is in sharp contrast with the physical environment, where the copyright owner would face the insuperable task of seeking out every potential user and securing a license from each one.

270. See Ayres & Gertner, *Filling Gaps*, *supra* note 216 (discussing how courts and

copyright owner may in fact assist in conveying information for market transactions, reducing the potentially distorting impact of information asymmetries.²⁷¹

To summarize, then, the maximalist framework provides some economic justification for the existing incidents of copy ownership and some guidance about what we should consider in deciding whether, and if so how, to translate these incidents into the digital context. As a general matter, the framework favors granting rights to copyright owners when possible and relying upon the market to sort out the various rights and uses in copyrighted works. However, careful attention must be paid to transactions costs and other ways in which the digital marketplace may depart from the neoclassical ideal. It is this final point that has been largely neglected by the White Paper.

This conclusion does not end our analysis. Even though the maximalist framework appears to provide a justification for the distribution of rights between copy owner and copyright owner, we must still consider whether there exist additional, noneconomic justifications for the incidents of copy ownership. As already mentioned above, the maximalist framework does not capture interests that are not economic. This is perhaps the most significant limitation to that approach, because many noneconomic values clearly play a vital role in copyright law. Might the existing distribution of rights also reflect some accommodation of noneconomic interests and values, and if so, should such interests

legislatures should set default contract rules); Ayres & Gertner, *Majoritarian vs. Minoritarian*, *supra* note 216 (critiquing the use of penalty default provisions as a means to facilitate the disclosure of information between contracting parties); Ayres & Talley, *supra* note 100 (addressing divided entitlement concept and concluding that divided ownership facilitates trade). *But see* Louis Kaplow & Steven Shavell, *Do Liability Rules Facilitate Bargaining? A Reply to Ayres and Talley*, 105 YALE L.J. 221, 232 (1995) (arguing that the central thesis of Ayres & Talley "that liability rules facilitate bargaining is not adequately supported by the information-forcing argument in their article").

271. Note also that the maximalist view does not address market failures that are not attributable to transactions costs. For example, Lydia Loren has argued that there are positive externalities that result from certain amounts of free access to copyrighted works, externalities that are not captured in licensing transactions. *See* Loren, *supra* note 239. Similarly, low transactions costs do not adequately address refusals to license based on noneconomic reasons, such as a desire to avoid criticism. Thus the maximalist view fails to capture such important substantive values as criticism and the First Amendment. These values will be addressed expressly in the following section.

be translated into the digital environment? It is to these interests that I now turn.

D. Promoting Noneconomic Values

Although U.S. copyright law is broadly characterized as instrumental in its approach, it has also had a history of being influenced, at times, by noninstrumental considerations. Perhaps most prominently, the rhetoric of authors' rights and Lockean notions of labor-desert have had some influence on the shape of copyright law.²⁷² Partly in response to the growing international character of the copyright markets,²⁷³ the Copyright Act itself has been amended to recognize, in a very limited fashion, certain moral rights of integrity and attribution for a limited category of works of visual art.²⁷⁴ Some commentators have argued, moreover, that much of the recent judicial and legislative expansion of copyright law can be explained as resulting from increasing receptiveness to such arguments.²⁷⁵ Certainly, judicial opinions often include language that has natural rights or labor-desert overtones.²⁷⁶ Yet in the end, such theories provide little concrete guidance over the

272. See generally Lawrence C. Becker, *Deserving to Own Intellectual Property*, 68 CHIKENT L. REV. 609 (1993) (arguing that creators of intellectual property have greater rights by ownership); Gordon, *supra* note 84 (noting special burdens scholars place on copyright law); Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287 (1988) (discussing Lockean and Hegelian property rights theories); Alfred Yen, *Restoring the Natural Law: Copyright as Labor and Possession*, 51 OHIO ST. L.J. 517 (1990) (discussing noneconomic justifications for copyright law).

273. See Berne Convention for the Protection of Literary and Artistic Works, July 24, 1971, 102 Stat. 2853, 1161 U.N.T.S. 31 (hereinafter "Berne Convention").

274. See 17 U.S.C. § 106 (1994 & Supp. V 1999); see also *Gilliam v. American Broad. Cos.*, 538 F.2d 14 (2d Cir. 1976) (granting preliminary injunction requiring that ABC no longer edit the original programs as performed by Monty Python). Integrity and attribution may raise some interesting issues in the digital environment, insofar as digital copies are inherently more susceptible to (often undetectable) manipulation. It may be very difficult to tell when a digital copy has been changed. This issue is outside the scope of this Article.

275. See BOYLE, *supra* note 16, at 25-34, 47-50; Peter Jaszi, *Toward a Theory of Copyright: The Metamorphosis of "Authorship"*, 1991 DUKE L.J. 455, 457-63. But see Mark A. Lemley, Book Review, *Romantic Authorship and the Rhetoric of Property: Shamans, Software and Spleens: Law and the Construction of the Information Society*, 75 TEX. L. REV. 873 (1997) (reviewing Boyle and arguing that expansion is due instead to unthinking protection of "property"); Netanel, *supra* note 11, at 307 (arguing that expansion is due to acceptance of maximalist views).

276. See, e.g., *Gilliam*, 538 F.2d at 23-25.

precise scope and shape of copyright law. There appear to be few limiting principles to many of these noneconomic theories. Questions about how much reward an author "deserves" are hard to answer with any degree of precision, and are likely to affect results only when equities of a particular case point substantially in an author's favor.

With respect specifically to the incidents of copy ownership, it is difficult to see how notions of labor-desert, in particular, have much to say. The idea that an author deserves the fruits of his or her labor seems to shed little light on why copy owners retain a right to read and access their copies. There may be a sense in which we feel an author does not deserve to control access to the copy after he or she has parted with title to it, but this sense is not terribly illuminating. Perhaps more relevantly, notions of desert frequently underlie arguments of copyright owners to peel back parts of the first sale doctrine. For example, arguments for a public lending right for books or for resale royalties for textbooks and CDs are often couched in terms of what the author deserves. Copyright owners argue that these practices unfairly deprive them of the fruits of their creative labor. Thus, notions of desert seem, like the maximalist approach, to lend support to the basic expansion of copyright owner rights and reduction of the first sale doctrine. However, as mentioned above, such notions give little guidance about the precise level and scope of protection.

More recently, some commentators have advanced and developed noneconomic theories that focus not so much on the natural rights of authors, but instead on the precise shape and structure of the market for creative works created by the existing copyright laws.²⁷⁷ Roughly speaking, instead of focusing on the inputs to creative activity, these theories focus on the outputs of a particular legal regime. And instead of focusing only narrowly on the number, quality, and price of copyrighted works produced, as the economic approaches tend to do, these theories ask whether the types of works, and the levels of access to them, satisfy some broader,

277. See generally Elkin-Koren, *supra* note 9 (analyzing how copyright law may shape the online environment and digital technology, and arguing against liability for online bulletin board operators); Fisher, *Fair Use Doctrine*, *supra* note 2, at 1744-94 (advancing a "utopian" analysis if society's "ambition [was] . . . to advance a substantive conception of a just and attractive intellectual culture").

noneconomic value. In some sense, these approaches are instrumental in that they focus on the ultimate output and consequences of the copyright laws, yet they differ in their more expansive measures for the suitability of the output.

One recent example is the theory advanced by Neil Netanel.²⁷⁸ Netanel advances a copyright theory based broadly on the idea that U.S. copyright law plays an important role in developing the conditions necessary for a democratic civil society. It does this by using the market as a mechanism to enable the robust production of creative works free of government subsidy or control.²⁷⁹ At the same time, however, the democratic paradigm has something to say about the precise shape and scope of copyright protection. Because copyright law, under Netanel's view, is not exclusively calculated to maximize returns to copyright owners, limits exist on the scope of copyright protection, limits dictated by the broader copyright goal of producing and supporting the conditions for a thriving democratic civil society.²⁸⁰

Such substantive theories about the ultimate shape of the market for copyrighted works are understandably subject to a great deal of controversy and disagreement. An advantage of the economic theories discussed above is that they focus on the part of copyright law that is relatively (though not completely) uncontroversial: its role in facilitating the production of creative works. Furthermore, the maximalist view has the advantage that it at least purports to leave difficult questions of value up to the market as a whole.²⁸¹ Yet this is, at the same time, a significant weakness in the maximalist view, because substantive considerations have clearly played an important role in shaping copyright law in the past. Indeed, the

278. See Netanel, *supra* note 11, at 373.

279. See *id.* at 347-55.

280. See *id.* at 362-64; see also Fisher, *Property and Contract*, *supra* note 2 (advancing social-planning theory to copyright on the Internet); Alfred C. Yen, *Copyright Opinions and Aesthetic Theory*, 71 S. CAL. L. REV. 247 (1998) (suggesting that aesthetics is a relevant consideration in judging copyright cases). But see Christopher S. Yoo, *Copyright and Democracy: A Cautionary Note*, 53 VAND. L. REV. 1933 (2000).

281. This is, of course, largely illusory, because the market paradigm itself naturally embodies certain value judgments, that is, a preference for works that appeal to the tastes of the market and that can be commodified. See, e.g., Margaret Chon, *Postmodern "Progress": Reconsidering the Copyright and Patent Power*, 43 DEPAUL L. REV. 97 (1993); Cohen, *supra* note 245, at 1800.

limits on copyright law imposed by the First Amendment (conventionally understood as expressed through the fair use and idea-expression doctrines) are a clear example of a substantive value, as are the express references in the Copyright Act to criticism and education. And indeed too narrow a focus on production may blind us to the qualities of what precisely it is that copyright law is producing.

It therefore makes sense to ask whether any substantive considerations about the shape of copyright law can shed light on the incidents of copy ownership. That is, do the abilities to read, transfer, lend, and rent physical copies of copyrighted works serve any noninstrumental and substantive values? Do they have an influence on the shape of the market for copyrighted works? To the extent that they do, any instrumental approach to digital copies should perhaps be modified to account for such noninstrumental values. Once again, such values are subject to potential disagreement. At the same time, however, they may give rich insight into the precise shape and scope of copyright law.

One possible value is an interest in preventing overcentralization of access to copyrighted works and promoting distributed circulation of copyrighted works. This interest can find some indirect support in writings on the importance of what is sometimes called "semiotic democracy."²⁸² Under this view, consumers have a legitimate interest, not only in securing and being able to consume a wide variety of intellectual goods at low cost, but also in being able to use, manipulate, and transform such goods so as to be able to derive new meanings from such goods.²⁸³ This view holds that this ability to utilize and manipulate intellectual works is an inherent part of deriving such meaning, both for the individual

282. See, e.g., Rosemary J. Coombe, *Publicity Rights and Political Aspiration: Mass Culture, Gender Identity, and Democracy*, 26 NEW ENG. L. REV. 1221 (1992) [hereinafter Coombe, *Publicity Rights*]; Rosemary J. Coombe, *Objects of Property and Subjects of Politics: Intellectual Property Laws and Democratic Dialogue*, 69 TEX. L. REV. 1853 (1991) [hereinafter Coombe, *Objects of Property*]; Rochelle Cooper Dreyfuss, *Expressive Genericity: Trademarks as Language in the Pepsi Generation*, 65 NOTRE DAME L. REV. 397 (1990); Fisher, *Property and Contract*, *supra* note 2, at 1217-18; David Lange, *At Play in the Fields of The Word: Copyright and the Construction of Authorship in the Post-Literate Millennium*, 55 LAW & CONTEMP. PROBS., Spring 1992, at 139; Michael Madow, *Private Ownership of Public Image: Popular Culture and Publicity Rights*, 81 CAL. L. REV. 127 (1993).

283. See Netanel, *supra* note 11, at 373.

consumer and for the community at large.²⁸⁴ In some ways, it is a theory about how users consume (or should be permitted to consume) intellectual works. This view has had particular impact in trademark law and the right of publicity.²⁸⁵ Critiques based on the value of semiotic democracy have decried the increasing centralization and expansion (particularly through the antidilution provisions) of trademark owners' control over the use and meaning of their marks,²⁸⁶ and celebrities' increasing control over the use and meaning of their images.²⁸⁷ Giving trademark owners and celebrities too much control over such meaning prevents consumers from using such cultural symbols to create new meanings.²⁸⁸

Certain features of copyright law appear expressly to support semiotic democracy as an independent value. Most obviously, the provisions in the fair use doctrine that protect criticism and parody appear designed specifically to give users the freedom to craft new meanings based on the underlying copyrighted work. Thus, a copyright owner has no right to prevent a critic from citing portions of the work, from interpreting the work in a certain fashion, or from printing critical remarks about the work.²⁸⁹ Similarly, under certain

284. See Elkin-Koren, *supra* note 112, at 272 ("Any creation of knowledge depends on exposure to new information. We refine our ideas about the world through interaction with others' ideas, feelings, beliefs and discoveries. A law that allows owners to charge money for any such interaction is detrimental to any vision of learning and growth."). Elkin-Koren also predicts that

If copyright owners are able to charge for all browsing, fewer people will be able to gain even limited access to information. While, under the current regime users are able to freely browse through books in the bookstore or through different sections of a newspaper, a regime that makes browsing an infringement would restrict such behavior.

Id.; see also Cohen, *supra* note 245, at 1816-19 (suggesting that there may be substantial benefit to incomplete copyright owner control).

285. See Madow, *supra* note 282, at 134-35 (arguing that the right of publicity threatens the ability of the public to recast and reshape celebrity images).

286. For an interesting example, see *Does the Distorted Barbie Violate Mattel's Copyright?*, at <http://www.net/projects/censored/censored.htm> (discussing Mattel's request that the website remove Barbie from its page because of copyright infringement).

287. See, e.g., Madow, *supra* note 282, at 144-47 (discussing lawsuit over postcard of John Wayne wearing lipstick).

288. See Coombe, *Objects of Property*, *supra* note 282; Dreyfuss, *supra* note 282. But see Justin Hughes, "Recoding" Intellectual Property and Overlooked Audience Interests, 77 TEX. L. REV. 923, 925 (1999) (suggesting that individuals may have an interest in having stable meaning for cultural objects).

289. See 17 U.S.C. § 107 (1994).

circumstances, a copyright owner may not prevent a parodist from taking certain elements of the work and recasting them in a critical, transformative, or humorous light.²⁹⁰ These provisions thus expressly preserve the right of individuals to define new meanings from copyrighted works.²⁹¹ There are, of course, limits on the extent to which individuals can engage in such reinterpretations and transformations. Indeed, the underlying existence of the derivative work right is, at some basic level, in tension with an interest in semiotic democracy. However, at least some elements of existing copyright law appear to recognize this value, to a limited extent.²⁹²

Perhaps less obviously, certain incidents of copy ownership can be seen also to further such goals, or, at the very least, to act as a protection against overcentralization of control of copyrighted works. So, for example, the rights to transfer, lend, and rent copies of a copyrighted work, combined with a right to access such works freely, ensure, as a practical matter, that alternate avenues exist for acquiring access to copyrighted works. Once a particular copy of a work is placed into the stream of commerce, the copyright owner gives up control over most uses of that work. He or she cannot control or monitor by whom the work is read, how many times it is read, in what context it is read or used, or to whom it is subsequently transferred. Thus, individuals can obtain access to works, not only from the copyright owner (or an authorized source), but also from third parties, from friends, in libraries, in used book stores, or by chance. In this way, certain characteristics of physical copy distribution, along with the background legal framework, place a limit on the control copyright owners can exert over their works, once disseminated.²⁹³ To be sure, these incidents of copy ownership

290. See, e.g., *Campbell v. Acuff-Rose*, 510 U.S. 569 (1994).

291. In addition, express statutory provisions, such as the compulsory "cover" license for musical works, seem to acknowledge the need, in some instances, for reinterpretations of existing works. See 17 U.S.C. § 115 (1994 & Supp. V 1999) (compulsory licensing of musical works). Note, however, that this is a particularly limited right, since the statutory provisions impose limits on the extent to which subsequent performers can vary the underlying musical work.

292. Cf. Hughes, *supra* note 288 (discussing utility of using intellectual property laws to protect cultural objects from recoding).

293. See Cohen, *supra* note 245 (arguing that digital property rights should be redefined to place greater emphasis on social welfare); Elkin-Koren, *supra* note 112, at 272 ("Random access to information is essential for individuals' ability to shape their interests, preferences, and positions.").

do not have the same transformative potential found in derivative works. At the same time, however, they do serve a decentralizing role, ensuring that individuals at least have the potential to encounter the works without having to engage the copyright owner directly.²⁹⁴

Although an interest in decentralized access was quite clearly not an express consideration in the drafting of the bundle of copyright rights, the role played by the physical copy in supporting such an interest may nevertheless be a role worth protecting in the online environment. Indeed, there are reasons to think that this role may have added importance in an online environment. If accessing and transferring digital works requires permission from the copyright owner (as under *MAI*), then access to copyrighted works in the digital environment may well be centralized in a manner not found in the physical environment.²⁹⁵ To gain access to a copyrighted work, each consumer will be required to access the work from the copyright owner or an entity authorized by the copyright owner to distribute digital copies of that work.²⁹⁶ Broad access to, and dissemination of, works outside the control of the copyright owner, will generally not be privileged, because it will run afoul of the underlying exclusive right to reproduce.²⁹⁷ Thus, centralization of access to copyrighted works may well be a feature of the digital environment, at least under a rule governed by *MAI*.²⁹⁸

294. See Cohen, *supra* note 245, at 1816 ("It is at least as likely that access and transformative reuse are two sides of the same coin—that creativity cannot be predicted *ex ante*; that the nature of the creative process requires adventitious access and reuse . . .").

295. See Elkin-Koren, *supra* note 9, at 348 (noting that "imposing liability on BBS operators hinders rather than promotes the potential of digital technology as a genuinely democratic medium. In fact, such liability will restrict the free flow of information by encouraging a more centralized control over content").

296. See generally *id.* at 355 (discussing distribution of copyrighted work to the public).

297. See *id.* at 348-50 (analyzing the potential of copyright law to frustrate the potential for increased social dialogue on the Internet).

298. See *id.* at 386-87 ("While the acquisition of a book involves a single purchase that provides the buyer with property rights over the book, accessing information on-line requires an ongoing relationship between users and providers of on-line services. In the absence of analogous rights to those granted under first sale doctrine, users' freedom to access and use information becomes more vulnerable. In a digitized environment, this creates a sweeping right for the copyright owner.") (citation omitted); Elkin-Koren, *supra* note 112, at 268 ("Employing copyright principles in cyberspace . . . may jeopardize the new opportunities introduced by cyberspace for decentralizing social dialogue.").

Some concrete examples may help to give some shape to this observation. Say, for example, that I want to view the copy of the Far Side cartoon that my friend e-mailed to me. To do so, under the rule set forth in *MAI*, I will first need to obtain permission from the copyright owner. Even if the cost of obtaining such permission is trivial (that is, even if there are technological systems that handle this automatically), my access to the work will have been monitored and approved by the copyright owner. Or, to take another example, say that I read an interesting article on the *New York Times* website, and want to forward it to a friend. I am concerned about copyright liability, so instead of copying the text of the article and sending it to my friend, I forward her the address of the web page. Once again, access is centralized. Rather than a direct exchange between me and my friend over the contents of the article, that exchange is now mediated by the *New York Times*.²⁹⁹

At first glance, the above examples may appear rather unproblematic. After all, in each situation, access has been obtained without much in the way of hassle or trouble. This is not a case where copyright law is actually reducing access; rather, it is just changing the nature of that access very slightly. Yet upon closer examination, there may be reason to be concerned about the nature of that change. Where once my interaction with my friend regarding the Far Side cartoon or the *New York Times* article was direct and unmediated, now my interaction is mediated by the copyright owner. That is, the copyright owner now becomes a party to our exchange. Note that this is particularly acute in the *New York Times* example. Before I get a chance to tell my friend what I think of the article, the *New York Times* will have a chance to present that article to my friend in the way that it wants to. The interaction now becomes mediated. Copyrighted works now circulate, if at all, through the copyright owner, rather than directly among individuals.

299. Something very close to this situation occurred in the recent case *Los Angeles Times v. Free Republic*, 34 U.S.P.Q. 2d (BNA) 1453, 1454 (C.D. Cal. 2000). In that case, the *Los Angeles Times* and the *Washington Post* sued a website that allowed users to post articles from the newspapers along with critical comments for purposes of engaging in debate and discussion. The district court granted summary judgment for the newspapers, dismissing Free Republic's fair use argument.

Indeed, a somewhat ironic feature of *MAI* is that it may restrict the ability of consumers to engage in the distributed access to, and consumption of, copyrighted works in the face of a technology that appears to increase the very ability of consumers to engage in such consumption to an extent never before seen. Digital copies are uniquely malleable—they can be easily transformed, recast, and distributed among others. Thus, unlike previous technologies, digital technology increases the opportunity for consumers to participate actively in deriving meaning from copyrighted works, to use them as raw material for their own creations, and to share them with others.³⁰⁰ Whereas in the past the contents of a book or a television broadcast were not easily susceptible to such manipulation, today digital works are in fact subject to a good degree of such manipulation. And whereas in the past the sharing of books or information required the sometimes costly transfer of physical copies, now such works can be transmitted and shared nearly without cost. Accordingly, the rule advanced by *MAI* may have the effect of greatly hindering such freedom of use, and centralizing access to copyrighted works.

Some of the negative implications of centralized access have been cogently analyzed by both Niva Elkin-Koren and Julie Cohen.³⁰¹ According to Elkin-Koren, copyright law reflects the centralized structure of the physical print medium, and applying copyright concepts mechanically to the online environment will result in undesirable replication of this structure in the inherently decentralized environment of the Internet. She concludes that copyright law must instead be applied to the digital environment in a way that preserves and promotes democratic interests in social

300. It is certainly an open question to what extent individuals will in fact choose to engage in such meaning-making. See Hughes, *supra* note 272. It may well be that interest in such active participation in the works will not be great. However at the very least, the rule in *MAI* seems to hinder the possibility of such a development.

301. See Cohen, *supra* note 257, at 161; Elkin-Koren, *supra* note 9; see also Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, N.Y.U. L. REV. 354 (1999); Julie E. Cohen, *Examined Lives: Informational Privacy and the Subject as Object*, 52 STAN. L. REV. 373 (2000); Jonathan Zittrain, *What the Publisher Can Teach the Patient: Intellectual Property and Privacy in an Era of Trusted Privication*, 52 STAN. L. REV. 1201, 1226 (2000) (arguing that “[t]he elements of the information technology revolution that worry intellectual property holders carry parallel significance for individuals as personal data holders,” particularly with regard to medical data).

dialogue.³⁰² Julie Cohen has advanced a related argument, focused not so much on copyright law but on the implications of a substitute for copyright law, the technological protection of digital works.³⁰³ Cohen argues that the development of technological systems to monitor access to, and usage of, digital copies poses the potential of infringing upon the privacy and First Amendment interests of consumers.³⁰⁴ That is, under such a regime, copyright owners would track and collect information about the reading habits of individuals. Cohen argues that implementation of, and statutory support for, such technologies may violate a "right to read anonymously," which she derives from the First Amendment.³⁰⁵ Both Elkin-Koren and Cohen thus advance specific noneconomic critiques of extensive, centralized copyright owner control in the digital environment, though neither of them has focused specifically on the idea of copy ownership.

Thus, as a general matter, a strong argument can be made that the incidents of physical copy ownership in fact lend support to a legitimate interest in decentralized consumption of, and access to, copyrighted works. Although clearly not an express part of the design underlying copyright law, this interest is one that is, as a descriptive matter, currently served by the existing incidents of copy ownership in physical copies. The incidents of physical copy ownership carve out an area in which individuals are free to acquire, consume, and share copyrighted works largely as they wish, free from copyright owner control. Indeed, the desire to facilitate the creation of such a robust, secondary market has been a hallmark of physical property law's reluctance to enforce restraints on alienation. And, as mentioned at the outset of this Part, it is a feature of changing technology that it forces us to reexamine aspects of the status quo and expressly consider whether we wish to preserve such aspects in the new environment. Given that some *de facto* protection of such an interest is a feature of our existing balance of rights, it is legitimate to ask whether to attempt to preserve this feature in the online environment, and specifically

302. See Elkin-Koren, *supra* note 9, at 410-11.

303. See Cohen, *supra* note 257.

304. See *id.* at 162.

305. See Cohen, *supra* note 150; see also Cohen, *supra* note 245 (highlighting other ways in which intellectual works are different from market commodities).

whether the idea of digital copy ownership should be used to preserve such a feature, questions to which I will turn in the next Part.

At the same time, however, these concerns once again rest on certain expectations about the future shape of the online environment, expectations which may not come to pass. It may be that, even under a realm of relatively centralized copyright owner control over content, access to such content may be broader and more widely distributed than ever. Distribution of digital documents may be handled through additional third parties, such as virtual bookstores. Repositories and archives may develop to address the difficult problem of storing digital documents permanently.³⁰⁶ Fair use may operate to privilege distribution of certain types of documents. Moreover, if individuals truly value the ability to acquire and consume works free from copyright owner control, perhaps the market will evolve to satisfy this interest.³⁰⁷ In short, predictions about overcentralization could well be premature.³⁰⁸ New market structures are extremely difficult to predict, and until such structures develop, action on this front is likely premature. Thus, even if the incidents of physical copy ownership do appear to serve a noneconomic value in facilitating decentralized meaning-making, we need to think carefully about how to implement this in the digital environment.

At the same time, there may be reasons to doubt the ability of the market to adequately provide such decentralized access to copyrighted works, even if consumers desire, and are willing to pay for, such access. One possibility is that copyright owners may not accurately assess the potential risks and benefits of exploiting a new copyright market. Although firms can generally be expected to assess such risks and benefits accurately, more recent research into institutional behavior has highlighted the ways in which institutional and bureaucratic conservatism can skew assessments

306. See *Internet Archive*, at <http://www.archive.org>.

307. A good example of this principle in action is the consumer rejection of DIVX as a competing standard for movies on DVD. See Lindsey Arent, *Ding-Dong, Divx is Dead*, WIRED NEWS, June 16, 1999, available at <http://www.wired-com/news/business/0,1367,20259,00.html>.

308. Moreover, the centralized control that broadcasters currently have over the distribution of their copyrighted works has not prevented healthy use of, and reinterpretation of, cultural images. See, e.g., *alt.tv.simpsons*.

of economic self-interest.³⁰⁹ Indeed, the copyright industries in particular have witnessed many historical examples where entrenched industries failed to recognize the beneficial impact of potential markets and new technologies.³¹⁰ Second, other market imperfections, such as transactions costs, may practically hinder the ability of such a market to be served. Third, there may be external benefits to decentralized access that cannot be captured in the market for access.³¹¹ Thus, there is no guarantee that the copyright industries will accurately serve such a market for distributed access. What is needed, therefore, is a careful assessment of likely possibilities and a concomitant consideration of the values identified in this section.

IV. OWNING DIGITAL COPIES

Having surveyed a number of possible theoretical justifications for the incidents of physical copy ownership, we are left in the end with a characteristically complex and unstable mix of justifications. The analysis above suggests that, at least as a descriptive matter, these incidents of physical copy ownership—the ability to read, lend, and transfer—result largely from preexisting understandings about what it means to own physical property, understandings that copyright law acknowledges in numerous ways. At the same time, however, these incidents have come to play a rather complex and multifaceted role within copyright law as a whole. These incidents of copy ownership give rise, in practice, to a certain balance of copyright owner rights and consumer access in the physical world,³¹² although this observation is not terribly helpful in deciding

309. See Netanel, *supra* note 11, at 312-13. See generally THRAINN EGGERTSSON, *ECONOMIC BEHAVIOR AND INSTITUTIONS* (1990) (exploring neoclassical economics); OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL/CONTRACTING* (1987) (discussing transaction cost economics).

310. The most famous example is the VCR, which the television and movie industries widely feared would destroy the market for broadcast and movies, but which wound up expanding the market tremendously and enriching the very industries that had so vigorously opposed the new technology. Along those lines, it is interesting to consider the current dispute over the distribution of MP3s over the Internet. See Amy Harmon, *Deal Settles Suit Against MP3.com*, N.Y. TIMES, Nov. 15, 2000, at C1.

311. See, e.g., Loren, *supra* note 239 (highlighting problem of positive externalities).

312. And, indeed, to numerous real-world institutions, such as libraries, used book stores, etc., that rely on such incidents.

how to adapt to rapid technological change. Somewhat more helpfully, the incidents of copy ownership play a role in reducing transactions costs and in setting up an easily identifiable default bundle of rights. Finally, these incidents of copy ownership seem to serve a number of additional purposes, in particular, facilitating distributed access to, and use of, copyrighted works, free from centralized control by copyright owners.

The question for this Part to address is whether and, if so, how the functions played by the incidents of physical copy ownership should be preserved in the digital, online environment. In this Part, I will argue that the economic and noneconomic functions played by the incidents of physical copy ownership should be recognized in the digital environment, and that this recognition should take the form of an unlimited right to access digital copies in one's possession and a more limited right to transfer such copies to others. I will explore some of the implications of these recommendations through a number of concrete examples and show how these recommendations support the economic and noneconomic values identified above. I will then discuss different ways of implementing these recommendations. Finally, I will address a number of anticipated objections.

A. Toward a Theory of Digital Copy Ownership

1. A Right to Access

The analysis in the previous Part strongly suggests that those who own or possess a digital copy of a copyrighted work should obtain an unlimited ability to access, read, or use that copy, assuming that no contractual or technological limitations otherwise exist to restrict such an ability. Under this view, then, once an individual has acquired physical possession of a digital copy, that individual should be permitted to access that copy as many times as he or she wishes, even if such access results in a copy being made in the RAM of the computer. So, for example, say that a friend has sent me a Far Side cartoon by e-mail. The fact that that image currently resides on the hard disk of my computer should, under such a rule, entitle me to access that image as many times as I want, without having to seek permission from the copyright owner and without worrying about the availability of a particular defense

to infringement. Under this rule, then, possession leads to an unrestricted right of access.

Such a privilege satisfies and preserves a number of the purposes that the ability to read serves in the context of physical copies. As an initial matter, such a rule may well be consistent with the maximalist concern with reducing transactions costs, provided one takes such costs seriously. Notwithstanding the White Paper's assertions to the contrary,³¹³ the existence of low-cost and ubiquitous licensing is not at all guaranteed in the online environment. Accordingly, substantial risk exists that a contrary rule would bar (or at least chill) much socially desirable access to copyrighted works, or, almost equally troubling, lead to widespread disregard of the legal rule, if low-cost licensing were not ubiquitous. Moreover, even if low-cost licensing systems are eventually implemented, the transactions costs associated with licensing certain micro-uses of works may still outweigh the value of such micro-uses to the consumer, particularly when we are considering one-time access.

Furthermore, other, noneconomic goals advanced by an unlimited right to read suggest that counting too heavily on the potential development of low-cost licensing is unwarranted. As already discussed above, the ability to read a physical copy freely plays a role in ensuring some degree of distributed consumption of copyrighted works free from copyright owner control. In the digital context, such a value would be greatly undermined if copyright owners were given control over all computer-aided uses of digital copies.³¹⁴ In order to access a digital copy, the possessor of the copy would in theory require permission from the copyright owner, or some specific statutory privilege. Although, in practice, licenses would likely be granted to cover many such uses, the effect of such a rule would be to require such licenses, thereby giving copyright owners a potential veto over certain types of consumption. Such a result seems deeply at odds with an interest in semiotic democracy. At the very least, it would have a chilling effect on the ability of

313. See WHITE PAPER, *supra* note 10, at 183.

314. See Elkin-Koren, *supra* note 112, at 288.

individuals to access works free from central control. Moreover, it would raise serious privacy concerns, as Julie Cohen has noted.³¹⁵

Recognizing such a right to access also seems quite consistent with many of the conventions underlying the possession of digital copies. As discussed in the previous Part, there is a sense in which digital copies in one's possession are "owned" by those who possess them. A rule imposing liability on the unauthorized access of such copies would be deeply at odds with existing (albeit somewhat nascent) understandings about what it means to possess a digital copy, and would likely meet much resistance, leading to significant unenforced liability. Conversely, a rule that conferred upon copy owners a right of access would correspond with such conventional notions and therefore reduce information and enforcement costs. By creating a relatively well-defined right to access, such a rule would contribute to a relatively well-defined default bundle of rights associated with possession of a digital copy. Owners of digital copies would have a clear right to access the copy; such a right would not be subject to the vagaries of fair use. In addition, such an allocation of the entitlement would have an effect of reducing information asymmetries in the market for such works. To the extent that copyright owners wish to limit a copy owner's use of a certain copy (whether through licensing or technology), the copyright owner will have to make such limitations express, thus ensuring that the purchaser understands precisely what it is that he or she is purchasing.

At the same time, such a rule would not unduly undercut copyright owner incentives, a concern that copyright law must always take seriously. Accessing a digital copy does not, as a general matter, create a substitute for that copy; rather, it is merely a necessary step to consuming an existing copy. Accordingly, the underlying purpose of the reproduction right would not be undermined by allowing such access. Rather, the effect of such a rule would merely be to keep the reproduction right from unduly interfering with values served by the right to read in the physical environment. Reproductions of digital works that actually resulted in the creation of functionally equivalent (and substituting) copies would still constitute infringement. Thus, the underlying purpose

315. See Cohen, *supra* note 257, at 161.

of the reproduction right would still be preserved, while serving the additional values mentioned above.

Note that this argument for preserving a right to access does not depend, as the minimalists would have it, on some notion of maintaining an overall balance of access and incentives. As already noted above, the task of maintaining any meaningful balance of access and incentives in the face of dramatic technological change would be difficult, if not impossible. Indeed, an unlimited right to access digital works, in conjunction with other aspects of digital technology, may well result in a radically different balance of access and incentives, one that we would be hard pressed to predict at this point. Instead, the support for a right to access comes from a desire to preserve some of the functions that the right serves in the physical environment, through reducing transactions costs, facilitating distributed consumption of works, and acknowledging conventional notions and norms of property ownership.

The existence of a right of access does not mean that copyright owners are entirely without recourse in seeking to regulate access to their works. That is, even without the right to control access to the copy, copyright law will still provide copyright owners the ability to prevent other types of copying that pose a threat to their economic interests. Most notably, the proposed rule says nothing about how an individual came into possession of the particular copy to which he or she would, under this rule, have an absolute right to access. So, for example, say I load an unauthorized copy of Microsoft Word onto the hard drive of my computer, thereby creating another copy of that software package. Under the proposed rule, I would have an absolute right to use the pirated software as much as I want. Yet I would still be liable for the initial act of copying the software onto my computer. This is no different from the hard-copy context, in which copyright law would bar me from making a copy of the book, but not from reading it once I had made the copy. Thus, copyright owners still have the ability to protect their economic interests; the rule merely prevents them from extending their interest to include control over the use of, or access to, a given digital copy, for the reasons set forth above.

It could be argued that, if copyright owners can assert infringement claims based on an individual's acquisition of a copy of a work, then why is the right to view the work important? After

all, in every case where an individual accesses a work, won't there necessarily have been a prior reproduction, that is, an act of copying? Although this will be true in many cases, it will not be true in all cases. For example, accessing a digital copy given to you on a floppy disk or CD-ROM would be a case in which the access right is implicated, but not the prior reproduction right. Similarly, accessing a work from a website results in a RAM copy without prior creation of a copy,³¹⁶ unless the browser is caching the work on your hard disk. There may also be cases in which the initial copying was privileged (say, by fair use), but the subsequent viewing might not be privileged. More generally, there may be implications regarding who is liable for the reproduction. Again, take the example of the e-mailed Far Side cartoon. In that case, the friend who sent it to you might be liable for causing a copy to be made. However, you would not be liable for viewing the copy. Finally, where statutory damages can sometimes be awarded for each separate act of infringement, the distinction between the initial reproduction on your hard drive and subsequent acts of access becomes significant. Thus, there are many ways in which such a distinction may be relevant.³¹⁷

Another question raised by the proposed rule is whether copyright owners should be able to get around the entitlement through contract or through technological means. For example, should copyright owners be permitted to use technology to restrict the number of times a copy owner can access a copy or to meter and separately charge for each act of access? Or, alternatively, should copyright owners be able to contract around this right to access, by securing an agreement from the copy owner ahead of time? And if so, should copyright owners be permitted to do this using the increasingly common practice of shrink-wrap or click-wrap agreements?

316. Note that this may, however, implicate the public display right. See Reese, *supra* note 128.

317. This state of affairs would be similar, in some respects, to the way in which the First Amendment permits the state to regulate the sale and distribution of obscene material, but prohibits the state from criminalizing possession of at least certain types of obscene material. Compare *Miller v. California*, 413 U.S. 15 (1973) (allowing states to regulate the sale and distribution of obscene material), with *Stanley v. Georgia*, 394 U.S. 557 (1969) (holding that the state may not punish mere private possession of obscene material).

These questions are a subset of questions raised in the broader ongoing debate over the desirability and enforceability of so-called "copyright substitutes."³¹⁸ Much has been written about the extent to which copyright owners should be permitted to vary the default bundle of copyright entitlements through these mechanisms,³¹⁹ and an in-depth analysis of this issue is beyond the scope of this Article. The focus of this Article has rather been on establishing the scope of the underlying entitlements, because individuals will continue to possess digital copies in the absence of such restrictions. However, without engaging in too in-depth an analysis, the conclusions in this Article suggest some initial responses.

As to technological limitations on the ability to access digital copies in one's possession, the preceding analysis suggests that such limitations should generally be permitted. Such limits do in fact restrict the ability of individuals to access copies in their possession and therefore may be suspect in light of the identified interest in permitting distributed access to copies of copyrighted works free from central copyright owner control. At the same time, however, concerns about transactions costs may be limited if the systems are already in place and permit low-cost licensing. Furthermore, uncertainty about the scope of entitlements conveyed will be limited, because the limits will be apparent. Finally, and perhaps most importantly, copyright law as it currently stands provides no framework for disabling technological attempts to control access, and any attempt to regulate technology at this early stage and without sufficient knowledge raises substantial risks.³²⁰

318. See, e.g., Goldstein, *supra* note 118.

319. See, e.g., *ProCD v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996); Fisher, *Property and Contract*, *supra* note 2; David Friedman, *In Defense of Private Orderings: Comments on Julie Cohen's "Copyright and the Jurisprudence of Self-Help"*, 13 BERKELEY TECH. L.J. 1151 (1998); Mark A. Lemley, *Beyond Preemption: The Law and Policy of Intellectual Property Licensing*, 87 CAL. L. REV. 111 (1999) [hereinafter Lemley, *Beyond Preemption*]; Lemley, *supra* note 160; David Nimmer et al., *The Metamorphosis of Contract into Expand*, 87 CAL. L. REV. 17 (1999); Maureen A. O'Rourke, *Copyright Preemption After the ProCD Case: A Market-Based Approach*, 12 BERKELEY TECH. L.J. 53 (1997).

320. This is not to say that we will never have sufficient information. That is, it may well be that, in a number of years, such technological limits become ubiquitous and result in such substantial harm to the public interest that legislation restricting their implementation would be warranted. However, at this point, there is certainly insufficient information upon which to base such an action.

By the same token, however, legislative efforts to lend additional support to such technological protection mechanisms, as exemplified in the DMCA,³²¹ are inappropriate. As an initial matter, they seem terribly premature. Thus far, there is scant evidence that such mechanisms will not be sufficiently successful without legislative support. Even worse, however, the DMCA imposes significant additional limits on the ability of individuals to manipulate and access digital copies within their possession. Thus, the DMCA prevents individuals from circumventing technological protection mechanisms, even if the purpose is to engage in fair uses of the underlying works.³²² Furthermore, the DMCA prevents alteration of copyright management information attached to the digital copy.³²³ Both of these limitations are sharply at odds with the interest in preserving some ability on the part of copy owners to consume and access their copies free from copyright owner control. Thus, the interest in preserving opportunities for decentralized consumption of works would counsel strongly against such legislative support.

With respect to contractual measures, if an agreement limiting access to the work were voluntarily entered into and negotiated by the parties, there would be little objectionable, either under basic contract law principles or copyright law. However, the difficult question is raised by shrink-wrap or click-wrap agreements—for example, if the digital copy came attached with a click-wrap contract, which the copy owner would have to “assent” to before obtaining access to the work. The ubiquitous use of such agreements threatens to supplant copyright law, and the balance reflected within copyright law, with what would effectively be “private legislation.” This is a complicated issue, and much has been written about it.³²⁴ Again, without engaging in an in-depth analysis of the issue, I would note that I concur with the view set forth by Mark Lemley and others, who have persuasively argued that such agreements should only be enforceable under limited circumstances.³²⁵

321. 17 U.S.C. § 1201 (Supp. V 1999).

322. See *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294 (S.D.N.Y. 2000).

323. See 17 U.S.C. § 1202.

324. See *supra* note 2.

325. See Lemley, *Beyond Preemption*, *supra* note 319; Lemley, *supra* note 160.

Having established that a right to access is desirable, a number of different potential avenues exist to doctrinally implement such a right. Perhaps most directly, it could be implemented through judicial abandonment of the rule in *MAI*. That is, once RAM copies are considered insufficiently fixed to constitute "copies" within the meaning of the Copyright Act, computer access to possessed digital copies is no longer problematic. This would be an ideal solution. Commentators have already highlighted the numerous failings in the original opinion.³²⁶ Ample doctrinal grounds exist, based on the legislative history and policies underlying the Act, to reach such a result. Moreover, many of the problems discussed in this Article result directly from the rule in *MAI* and the White Paper's adoption and extension of that rule. Unfortunately, most of the cases that have since been handed down have followed the result in *MAI*.³²⁷ Furthermore, portions of the DMCA appear to give added support to the rule in *MAI*.³²⁸ Accordingly, judicial abandonment of the rule may not be quick in coming.³²⁹ Although several commentators have noted that the result in *MAI* is not a foregone conclusion, I fear this is increasingly looking like wishful thinking.

A second option would be to establish a right to access by amending or interpreting section 117 to expressly include not only computer software, but all digital works.³³⁰ By privileging the incidental copying of computer software necessary for the use of such software, section 117 already expressly recognizes a number of the values of copy ownership set forth above. Extending this to all digital works would merely recognize that the same issues that exist for computer software also exist for all digital copies. Indeed, there is no reason to distinguish between bits representing software

326. See *supra* note 36 and accompanying text.

327. See cases cited *supra* notes 12 and 45.

328. See 17 U.S.C. § 117(c)-(d) (Supp. V 1999).

329. In addition, the type of case that would give rise to such an overruling is probably less likely to be litigated. As discussed above, the results of the lines of cases can be explained to some extent by the particular factual circumstances, which involved activity that a court could view as free riding. The more direct case against a consumer reading a document is less likely to be litigated. This does not, however, suggest that we should be unconcerned about these results, because uncertainty about the state of the law may well have a chilling effect on activity, even if a case is never brought.

330. See Cate, *supra* note 81, at 1453 (proposing a similar interpretation of fair use doctrine); see also Litman, *supra* note 3, at 41 (proposing right of ephemeral copying).

and bits representing other copyrighted materials; the same issues exist for both types of works. In both cases, ownership of a digital copy of a copyrighted work is essentially meaningless without some privilege to access or use it. Thus, under such a result, an amended section 117 might look something like this:

§ 117. Limitations on exclusive rights: Digital copies. Notwithstanding the provisions of section 106, it is not an infringement for the owner of a digital copy of a copyrighted work to make or authorize the making of another copy or adaptation of that work provided: (1) that such a new copy or adaptation is created as an essential step in the utilization or access of the work in conjunction with a machine and that it is used in no other manner, or (2) that such a new copy or adaptation is for archival purposes only and that all archival copies are destroyed in the event that continued possession of the copy should cease to be rightful. Any exact copies prepared in accordance with the provision of this section may be leased, sold, or otherwise transferred, along with the copy from which such copies were prepared, only as part of the lease, sale, or other transfer of all rights in the copy. Adaptations so prepared may be transferred only with the authorization of the copyright owner.³³¹

A number of additional issues would be raised by such an approach. First, regarding the interpretation of the term “owner,” are possessors of infringing copies “owners” within the meaning of section 117? Current case law seems to indicate they are not. That is, those who possess infringing copies of software are not privileged by section 117 to make the copies—on the hard drive or in the RAM of the computer—necessary to utilize the software.³³² To make this

331. One of the legislative alternatives to the DMCA contained a similar provision, although it did not pass. See *Digital Copyright Clarification and Technology Education Act of 1997*, S. 1146 (Sept. 3, 1997):

(b) Notwithstanding the provisions of section 106, it is not an infringement to make a copy of a work in digital format if such copying—

(1) is incidental to the operation of a device in the course of the use of a work otherwise lawful under this title; and
(2) does not conflict with the normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author.

332. See *DSC Communications Corp. v. Pulse Communications, Inc.*, 170 F.3d 1354, 1360 (Fed. Cir. 1999) (interpreting section 117 in light of legislative intent).

option truly effective, the term "owner" would have to be interpreted broadly to encompass those who possess even unauthorized copies. Alternatively, the text of the statute could be changed from "owners" to "possessors." Such changes are supported by the rationales already discussed in this section. Under the amended section 117, therefore, anyone possessing a digital copy of a copyrighted work would be entitled to access that copy, even if his or her access resulted in copies being made in the RAM of the computer.

The second issue raised by the proposed amendment concerns the ability of parties to contract around this right to access. Although few cases have expressly addressed this question, the cases interpreting the term "owner" to exclude certain licensees indicate that copyright owners currently may be permitted to contract around this. Such an ability to contract around the underlying entitlement, however, should be subject to the considerations already set forth above.³³³ A final issue is raised by the last two sentences of section 117, which give rise to a limited right to transfer copies. The desirability of this change will be discussed in the subsequent section on the transfer right.

A legislative amendment such as the one suggested above, though desirable, may, practically speaking, be unlikely, given that recent copyright legislation (for example, the DMCA and the recent extension of the copyright term) appears to be moving in precisely the opposite direction, driven by ever-increasing deference to the interests of the copyright industries.³³⁴ Thus, an alternative would be to rely upon judicial interpretation of the existing section 117 to include digital copies of other works. Although such an interpretation is not to be found in the text of section 117, it would be consistent with the overall purpose of the section. Indeed, as mentioned above, in light of the purposes of section 117, there is no reason to distinguish between digital copies of software programs and digital copies of other works. In both cases, the same issues of access are presented. Moreover, such an interpretation would recognize that when Congress enacted section 117 it did not

333. As noted above, larger questions about the potential ubiquity of contractual and technological controls are beyond the scope of this Article.

334. See *supra* notes 183-86 and accompanying text.

anticipate the now widespread distribution of other types of works in digital form. Thus, such an interpretation, though activist, would not be entirely at odds with the doctrinal sources.

A third, and least attractive, option would be to privilege the right to access judicially through fair use. This would be an acceptable solution—though not as desirable as judicial abandonment of *MAI* altogether—only if the privilege were established in a sufficiently broad fashion, that is, privileging all RAM copies or all rights of access. If, by contrast, the courts were to proceed in a case-by-case fashion (as seems more likely), privileging some access but not others, then fair use would not sufficiently establish the scope of the right to access. Instead, as discussed above, whether a particular use would be “fair” would be subject to substantial uncertainty. This is clearly not an optimal solution. More broadly, given the above analysis highlighting the centrality of the ability to access possessed copies, there is something a bit odd about treating the ability to read or access a copy as “fair use.” In some sense, such a use is *the* use—it is the reason for having a copy in the first place.

Thus, a number of different avenues exist through which a right to access digital works in one’s possession could be implemented. In the end, recognition of such a right to access would be consistent with much of the criticism that has been directed against the result in *MAI* and the position advanced by the White Paper and reflected in the enactment of the DMCA. In many ways the substantive proposal is nothing new. In one sense, the end result is no different than the functional result proposed by many of the economic minimalists. At the same time, however, the above analysis makes clearer precisely why we should be so concerned about preserving a right to access digital works in our possession. We should be concerned, not so much because such a right preserves any preexisting balance of access and incentives in the physical environment. As Jessica Litman has noted, that balance no longer exists and is likely gone forever.³³⁵ Instead, we should seek to reestablish such a right of access because it serves a number of important functions within copyright law, functions we cannot easily do without, unless we are willing to undertake a more substantial refiguring of existing copyright law.

335. See Litman, *supra* note 3, at 40.

Indeed, grounding a right to access in these considerations has a number of additional implications that suggest that the balance of access and incentives might be quite different. In particular, the interest in facilitating semiotic democracy suggests that in the digital context, the concept of access should be broadly construed. That is, if we take the interest in semiotic democracy seriously, a strong argument can be made that access should include not simply the right to make just those RAM copies that are minimally necessary to read or listen to a copy; rather, truly meaningful access should encompass the right to make any copies necessary to consume the work and derive meaning from it. As already noted above, digital copies are incredibly malleable. Accordingly, digital copies present individuals with ever greater opportunities to actively engage with the digital copies in the process of consuming them. In the past, such opportunities were rather limited; a book is relatively fixed, and one can do little more than read it, or perhaps highlight or annotate it. In the digital context, individuals similarly may wish to highlight or annotate digital texts electronically. But even more significantly, they may wish to engage in many more activities, such as taking clips of music, transforming images, and combining copies in various ways. To the extent that these activities are, or become in the future, part of consuming digital copies of copyrighted works, a right of access that includes these activities would more fully realize the increased opportunities presented by digital copies, rather than limiting such opportunities to those currently available.

Indeed, a number of cases in the software context already appear to recognize and lend support to such a view. Courts have, for example, held that owners of copies of software may make additional copies of such software to the extent necessary to study and reverse engineer such software.³³⁶ In other cases, courts have recognized the rights of owners to modify software in certain ways, changing the way they experience it.³³⁷ And, as mentioned above, the Copyright Act itself appears to recognize certain rights to adapt and modify software as necessary to use it.³³⁸ These cases all appear

336. See *Sega Enterp. v. Accolade*, 977 F.2d 1510 (9th Cir. 1992).

337. See *Lewis Galoob Toys v. Nintendo of Am.*, 964 F.2d 965 (9th Cir. 1992).

338. See 17 U.S.C. § 117 (1994 & Supp. V 1999).

to recognize that, where software is concerned, an owner of a copy should be permitted to make certain additional copies in the process of consuming and making use of such software. Although these cases have thus far been limited to software, the first copyrighted work to be widely distributed in digital form, these considerations are equally applicable to all works in digital form, and thus lend support to a similar right to copy and manipulate digital copies to the extent necessary to access and make use of them.

A full account of such a broader conception of access is beyond the scope of this Article. Such an account would need to examine carefully the ways in which digital works can be consumed and transformed by owners in the course of consuming such works. It would also need to make distinctions between different types of such uses, drawing lines between ones that have an impact on underlying incentives and ones that do not. It would also need to take into account the extent to which the market would be expected to provide low-cost opportunities to license such uses. However, this at least illustrates how the interest in semiotic democracy can provide results that differ from those that would follow from the minimalist approach.

2. *A Right to Transfer*

The status of a right to transfer digital copies is not so clear cut as the right to access them, and it raises additional complications. As an initial matter, free transfer of digital copies would appear to fulfill a number of the functions fulfilled by the free transfer of physical copies noted above. First, permitting free transfer can be squared with the maximalist concern about reducing transactions costs, provided such costs are taken seriously. As noted above, some commentators have suggested that in the digital environment, copyright owners may be able to easily monitor transfers of digital copies and charge copy owners "micro charges" for each transfer.³³⁹ Again, however, this view is many times too optimistic in its assessment of the likely scope of transactions costs online. Even in the digital environment, tracking every transfer of a given copy would be a nontrivial task. And as with the right to read, the ability

339. See Bell, *supra* note 114, at 619; Stefik, *supra* note 257, at 146.

of technology to enable low-cost licensing of such transactions is not yet established. Thus, even a maximalist framework can provide some support for a right to transfer, again assuming that transactions costs are taken seriously.

Second, a free right to transfer digital documents certainly supports an interest in decentralized access to copyrighted works, free from copyright owner control. Without such a right, access to digital copies would have to be obtained directly from the copyright owner or someone authorized by the copyright owner. Under such a regime, access to copyrighted works would be centralized to a degree not found in the physical environment.³⁴⁰ Moreover, such a centralization of access would not only fail to duplicate the existing decentralization found in the physical copy world; it would also hinder the increased potential for decentralized access presented by distribution of digital works online. A right to transfer digital copies is thus strongly supported by the above-identified interests in decentralized access to copyrighted works. To the extent individuals can freely circulate, disseminate, and share digital copies, access to copies of copyrighted works will come from different sources, and the process of decentralized meaning-making will be facilitated.³⁴¹

Finally, conventional understandings about the meaning of "owning" a digital copy may provide some limited support for a right to transfer. Just as a right to access a copy in one's possession seems like a natural incident to possession of that copy, so too does a right to forward a copy to one's friend. Again, the copy sits on one's hard drive, and transferring the copy to a friend is nearly costless. Nothing prevents one from sending that article.

Significant complications arise, however, in the implementation of such a right to transfer, because in the Internet environment there exists no direct analog to the transfer of a physical copy. The key difference is that on the Internet, transfer of a digital copy always results in the creation, not only of temporary RAM copies of a work, but also of an additional, relatively more permanent copy of the digital work. Unlike the transfer of physical copies, no physical property changes hands in the transfer of a digital copy

340. See Elkin-Koren, *supra* note 9, at 386.

341. See *id.* at 387-91 (discussing bulletin boards and discussion groups).

over the Internet.³⁴² Rather, the same pattern of digital ones and zeros is sent through the Internet and then replicated in the storage device of the recipient. Where there was once only a single copy, now there are at least two equally functional copies. This raises complications because, unlike RAM copies, copies made as a result of a digital transfer are in fact perfect substitutes. Indeed, the electronic transfer of a digital document is functionally equivalent to the creation of a copy—transferring and copying are basically the same thing.

As a result, a right to transfer digital copies directly implicates the incentive concerns underlying the reproduction right.³⁴³ If unlimited transfers were permitted and resulted in unlimited copying, then the potential would exist that copyright incentives would be seriously undermined. For example, if I had an unlimited right to transfer digital copies of a certain movie, I would have an unlimited right to give perfect digital substitutes to my friends (and strangers, for that matter). Thus, under such a regime, copyright incentives could be expected to be affected to such an extent that even the very rough minimalist concern about preserving at least some degree of incentive would be triggered. Thus, as much as we would like to promote transfer of digital files from one person to the next, such transfer directly undermines the incentive rationale that is central to copyright law.

This lack of a precise digital analog to copy-transfer sheds some interesting light on the recent dispute over the sharing of MP3s using “peer-to-peer” networking services such as Napster and Gnutella.³⁴⁴ As will be familiar to many, Napster is a software program that permits individuals to share files resting on their computers with other Napster users over the Internet. Napster has

342. Note that digital copies can sometimes be transferred without reproduction. For example, a copy stored on a floppy disk or a CD-ROM can be handed over to someone else in exactly the same fashion as a book or other type of physical copy. These cases present no problems, because they fall under the conventional physical copy situation.

343. It may also implicate the public distribution right. The first sale doctrine only applies to copies that are “lawfully made,” that is, copies that are authorized or privileged in some fashion. See 17 U.S.C. § 109(a) (1994). Thus, transfer of any unauthorized copies, even if privileged as a matter of reproduction, would have to leap an additional hurdle if made to the “public.”

344. See *A&M Records v. Napster*, 114 F. Supp. 2d 896 (N.D. Cal. 2000), *aff’d in part, rev’d in part*, 239 F.3d 1004 (9th Cir. 2001).

primarily been used as a mechanism for downloading unauthorized copies of copyrighted music in a compressed, MP3 format.³⁴⁵ A number of record companies filed suit against Napster on grounds of contributory copyright infringement, and, as of this writing, a federal appellate court had affirmed on the merits a preliminary injunction against Napster, although it remanded to the district court for a narrowing of the injunction.³⁴⁶

Putting to one side the merits of the specific legal claim, the debate over Napster highlights the tension that exists between transferring digital copies and reproduction. Many of the arguments in the popular press about Napster have been over the proper characterization of the activity being undertaken by Napster users.³⁴⁷ Supporters of Napster have called the activity "sharing" or "trading" files.³⁴⁸ The record companies have called the activity piracy.³⁴⁹ In the specific factual context presented by Napster, the record companies' characterization seems to me a bit more accurate, because as a factual matter, the primary use and value of Napster appears to have been to obtain free copies of music. However, in some ways, both characterizations are accurate: Napster users are both sharing and copying because, in the online environment, the two acts are the same.³⁵⁰

345. According to court papers filed in the suit, over 80% of the files transferred through Napster were of copyrighted songs. *See id.* at 903 & n.6.

346. *See A&M Records v. Napster*, 239 F.3d 1004 (9th Cir. 2001).

347. *See Catherine Greenman, Taking Sides in the Napster War*, N.Y. TIMES, Aug. 31, 2000, at G1; John Markoff, *Many Take, but Few Give on Gnutella*, N.Y. TIMES, Aug. 21, 2000, at C4.

348. *See Brad King & Swaroopa Iyengar, Napster Copies "Sony" Defense*, WIRED NEWS, Oct. 2, 2000, at <http://news.wired.com/news/politics/0,1283,39191,00.html>.

349. *See Brad King, RIAA Chief: Piracy is Doomed*, WIRED NEWS, Oct. 2, 2000, at <http://www.wired.com/news/culture/0,1284,39188,00.html>.

350. By way of illustration, assume, for the moment, that Napster users were in fact motivated by a sincere desire to "trade" or "share" music, and that they were not interested in increasing the sum total of available copies. For example, say that a group of Napster users trafficked in obscure and hard-to-find blues recordings, and that they in fact were not motivated primarily by obtaining free music, but were instead more concerned about disseminating, discussing, and sharing a particular type of music within a close community of shared interests. Indeed, these users would be perfectly happy if, in trading or sharing a particular copy, they were temporarily deprived of access to, or use of, that copy while it was being accessed or used by another. Even under such circumstances, however, the reproduction right would be implicated, because sharing over the Internet necessarily results in copying. By contrast, if sharing were accomplished purely through mailing of physical copies, there would be no problem. The basic point is that, in the online context, sharing

Given the identity between transferring and copying digital copies of copyrighted works, one possible response is that the right to transfer must give way. After all, the right to prevent unauthorized copying is absolutely central to copyright law; it is the main way in which copyright owners can obtain a return on their creative efforts. To the extent the transfer right undermines these efforts, it must give way. This is essentially the position adopted by the White Paper. In my view, however, this outlook is too pessimistic, particularly in light of the important interests served by the right to transfer identified above. At the very least, we need to look at whether it would be possible to preserve some of these values while not unduly undermining the purpose of the basic right to control reproduction.

Various measures could be taken to attempt to replicate functionally the results of a transfer of a digital document. For example, a "transfer" could be effected by sending a copy and then deleting the original. Although an additional copy would in fact be created, the net effect would be equivalent to a transfer, because no additional permanent copies would be created.³⁵¹ Indeed, the transaction could be completely automated by technology, so that a single push of a button could effect both transmission and deletion nearly simultaneously.³⁵² Thus, under such a rule, digital copies could be "transferred" so long as the transferor is careful to delete the original copy. Such an arrangement is not unprecedented; section 117 contains similar provisions, which permit the owner of a copy of software to alienate that copy provided he or she deletes all additional copies from his or her computer.³⁵³ Thus, such an approach could be implemented either legislatively through an amendment of section 117 to include other digital copies, or judicially through a bright-line fair use ruling. Indeed, one of the legislative alternatives to the DMCA contained just such a provision, although it did not pass.³⁵⁴

without reproduction is not possible, at least under current technology.

351. See Lemley, *supra* note 14, at 584.

352. See *id.*

353. See 17 U.S.C. § 117(a)(2) (1994 & Supp. V 1999).

354. See *Digital Era Copyright Enhancement Act*, H.R. 3048 (Nov. 14, 1997):

(f) The authorization for use set forth in subsection (a) applies where the owner of a particular copy or phonorecord in a digital format lawfully made under this title, . . . performs, displays or distributed the work by means of transmissions

However, there is something decidedly awkward about this arrangement, both as a practical and theoretical matter. In particular, such an arrangement seems to force digital documents artificially to behave like physical documents, neglecting the ways in which digital documents are in fact quite different. Compensating for, rather than taking full account of, the features of a new technology seems like a bad idea: it artificially replicates certain conditions while ignoring other differences resulting from the new digital medium.³⁵⁵ Moreover, permitting such an arrangement raises additional concerns about enforcement. That is, it is not clear that users could be adequately trusted to delete the originals after sending out a copy. Of course, the same enforcement difficulties currently exist with respect to policing unauthorized copying through Internet transfers. However, expressly authorizing such transfers, without being adequately able to ensure that the original copy is deleted, risks increasing the distribution of works without a compensating elimination of the original copies. That is, copy owners, knowing that transfer is permitted, might engage in more transferring while, at the same time, neglecting to fully satisfy the conditions that privilege such a transfer (whereas, at present, the legal proscription against transfers of any such kind may serve to limit the number of such transfers). In other words, the temptation would be to keep the original copy. More generally, there is something quite nonintuitive about such a transaction, particularly since no true physical copy analog to such a transaction exists.

If a rule allowing free transfer results, in the end, in the creation of numerous additional unauthorized copies, then the interest in free transfer may have to give way to the underlying copyright interest in preserving the copyright incentive. Indeed, the free transfer of copies in the physical context is already limited in cases presenting too great a risk of piracy. Thus, for example, the commercial rental of recorded music and software is generally prohibited, despite the fact that such restrictions impinge upon the

to the recipient, if that person erases or destroys his or her copy or phonorecord at substantially the same time the reproduction of the work to the extent necessary for such performance, display, distribution, is not an infringement.

355. See Litman, *supra* note 3, at 26.

idea of physical copy ownership.³⁵⁶ These are examples where copyright law restricts the right to free alienation in cases where the underlying incentive is threatened too much. Furthermore, the interest in free alienation seems more attenuated with respect to digital copies than with physical copies. After all, the disfavoring of restraints on alienation is derived from notions of physical property ownership. Although digital copies are in some sense "owned," the value of "alienating" digital copies seems much weaker, given that no physical property typically changes hands in such a transfer.

Moreover, even if we could be assured that individuals could be counted upon to delete copies after they transferred them, permitting free transfer may have other unanticipated effects on the market for digital copies. As noted above, the transfer and sharing of physical copies typically involves some degree of cost, and this cost serves to place a practical limit on the amount of transferring and sharing of physical copies that occurs. For example, borrowing a CD from a friend entails some degree of cost—calling the friend, asking to borrow it, getting the CD, returning it, etc. Similarly, library copies of books are only imperfect substitutes for purchases, because there is a cost associated with having to go to the library, find the book, and return it. In the online context, however, transferring digital copies entails virtually no cost. Sending a digital copy of a music CD to a friend can be nearly instantaneous, involving almost none of the physical-world costs. Thus, even if technological means could be used to ensure that no *additional* copies were made in the course of a transfer, the ease of transfer of existing digital copies in the end might well lead to a greater substitution of lending for purchasing,³⁵⁷ and have a correspondingly greater impact on copyright incentives.³⁵⁸ This might not be a bad thing: if copies were widely shared in this fashion, presumably the market and pricing for copies would adjust accordingly.³⁵⁹ However, it is possible that

356. See 17 U.S.C. § 109(b)(1)(A) (1994).

357. This is another illustration of the way in which existing copyright law depends on a certain level of friction in the markets for copyrighted works.

358. Consider, for example, how often one listens to any given music CD in a year. If individuals could freely transfer their digital music albums, one could envision a website that pooled individual music CDs, enabling members to check out and share the CDs when needed.

359. See, e.g., Yannis Bakos et al., *Shared Information Goods*, 42 J.L. & ECON. 117 (1999).

copyright incentives might be so undercut as to raise the minimalist concern about having at least some level of incentive for the creative activity. At the very least, recognizing an unlimited right to transfer raises these additional complications.

A nice illustration of the above point can be found in the introduction of (and subsequent lawsuit over) myMP3.com.³⁶⁰ In early 2000, MP3.com introduced a service called myMP3.com,³⁶¹ which enabled owners of particular music CDs to insert a CD into the CD-ROM drive of their computer, and then virtually "upload" that CD onto MP3.com's servers.³⁶² In actuality, MP3.com already had a copy of the CD on their servers, and no songs were actually copied from the user's CD (MP3.com had already copied the entire CD itself—this was the basis for the infringement claim); the insertion of the CD into the CD-ROM merely served to verify that the user in fact possessed a copy of the CD.³⁶³ The benefit of the service was that, once a CD was "uploaded" onto MP3.com's servers, the user could subsequently access and play the CD from any computer connected to the Internet. All the user had to do was enter his or her password to obtain access to the CD. The case was eventually settled, after MP3.com lost a pretrial motion in which it claimed that its copying of the music onto its servers constituted fair use,³⁶⁴ with MP3.com agreeing to pay a license fee to the various record companies in exchange for the right to provide the service to its users.³⁶⁵

The myMP3.com example serves as an illustration of the way in which "sharing" of copies of copyrighted works may have radically different implications in a context in which the costs of sharing are near zero. In effect, myMP3.com greatly increases the potential for sharing to substitute for purchases. Using myMP3.com (or my own server connected to the Internet), not only can I access my CD from anywhere in the world, but I also can give out my password to friends so that they can access the CD from anywhere in the world. Given the small fraction of time in which an individual listens to

360. See *UMG Recordings v. MP3.com*, 92 F. Supp. 2d 349 (S.D.N.Y. 2000).

361. See *id.* at 350.

362. See *id.*

363. See *id.*

364. See *id.* at 353.

365. See Harmon, *supra* note 310.

any given CD at any given time, a single copy could thus substitute for hundreds of purchases, even if that copy could only be accessed by one person at a time. Imagine, for example, that twenty of my friends and I set up a server connected to the Internet, purchase a single copy of various CDs, "load" them up onto the server, and then agree to share those files. These few copies of the CDs could replace many, many purchases.³⁶⁶ The net impact is that, where costs of sharing are much lower, sharing may be able to substitute for purchases to a much greater degree.

The complexity associated with the right to transfer, the uncertainty about the shape of future market structures, and the relatively less robust way in which the transfer right supports both the economic and noneconomic values identified above all suggest that copyright law should not recognize an unlimited right to transfer digital copies—at least not yet. That is, unlike the right to access discussed in the previous Section, there should be no unqualified right to transfer a digital document from one person to another, at least if that transfer necessarily gives rise to the creation of another fixed digital copy (thereby implicating the reproduction right). Rather, transfers of digital documents that result in such copies would, as a doctrinal matter, continue to be analyzed under the standard infringement analysis. This would apply even if an individual deleted his or her own copy after sending it to another.

To say that there would be no *unlimited* right to transfer is not to say, however, that transfer would *never* be privileged. Indeed, the fair use doctrine can still operate to permit a certain degree of digital copy transfer, fulfilling, on a case-by-case basis, many of the economic and noneconomic functions served by the transfer right in the physical context. As with fair use in general, much would depend on the particular circumstances. So, for example, forwarding to a friend by e-mail an interesting article would result in the creation of an additional copy, thereby implicating the reproduction right. However, such an action might well constitute fair use, much as photocopying an interesting article and sending it to a friend might constitute fair use. By contrast, forwarding a

366. Note that this type of sharing might be limited by the public performance right in the underlying musical works. See 17 U.S.C. § 106(4) (1994 & Supp. V 1999).

friend by e-mail the latest version of Microsoft Word would not constitute fair use.

Cases in which a copy is sent and the original is deleted would also be subject to a fair use analysis, though the considerations involved might be somewhat different. As a general matter, the transfer of a digital copy would, in the first instance, be analyzed as a reproduction of that work. The question would be whether the deletion of the original copy, under the particular circumstances, should privilege the original act of copying. In making this determination, the courts could look to a number of factors. As an initial matter, the deletion of the original copy would lend support to a finding of fair use, because the action would not result in the net creation of an additional copy. Thus the harm to the market³⁶⁷ for the work would not be as great as in the case where the original copy is not deleted. At the same time, a court would need to examine whether the recipient could have obtained his or her own copy from the copyright owner.

Consistent with the identified value in reducing transactions, the easy availability of the work for purchase elsewhere would be a relevant factor. So, for example, if I wanted to share with a friend a digital copy of a song, the inability of my friend to easily obtain that song on the Internet or the unavailability of a transfer license should lend support to privileging a transfer. Conversely, the easy availability of the song elsewhere would cut against the privilege, because concerns about transactions costs would be reduced.

Similarly, consistent with the identified value in preserving opportunities for distributed access and meaning making, courts would examine the nature of the use,³⁶⁸ being particularly attentive to uses that lend support to this value. Thus, if the transfer of the copy occurs in a context in which such a value is seriously implicated (for example, as part of a dialog, sharing among friends, etc.), a court might find fair use even if the work were easily available online. This interest in distributed access would be a new consideration in fair use analysis, since up to now distributed access has not been a significant issue or concern in a world of physical copies.

367. *See id.* § 107(4).

368. *See id.* § 107(1).

Such an approach is admittedly far less satisfying, insofar as it establishes no clear rule for dealing with transfers of digital copies. A good deal of uncertainty will thus continue to surround many given instances of transferring, and it may take some time for the courts to develop clear rules in this area. Many of the objections mentioned in the first part of this Article (for example, the expense and uncertainty associated with litigating fair use claims) would apply to such a result. However, given the complexity of the transfer issue and the general inability to predict with any degree of certainty how future markets will develop, it appears to be the best alternative.

Moreover, by at least laying down a default rule, this proposal may make it easier for market structures to develop. Absent any indication to the contrary, those who acquire digital copies of copyrighted works will understand that, as a general matter, they are not acquiring (and should therefore not be paying for) any absolute right to transfer that digital copy. If users in fact value the ability to transfer digital copies over the Internet, they can attempt to license the right from the copyright owner. Alternatively, copyright owners may develop low-cost technological mechanisms to permit some limited distribution of their works.³⁶⁹ The market has, up to now, developed some limited mechanisms for sharing digital works. For example, certain online computer games promote sharing through "spawning" technology.³⁷⁰ In addition, certain technological protection standards for digital music incorporate the ability to make a specific number of copies.³⁷¹ If no such mechanisms develop, however, fair use can act to preserve a number of the identified values on a case-by-case basis.

Even though the above analysis does not result in a prescription markedly different from the status quo, it at least makes clear what is being lost by the lack of an analogous transfer right in the online environment, and this itself may have implications on how these

369. The standards battle between DVD and DIVX may provide some empirical evidence about the extent to which consumers value the unlimited right to transfer copies of copyrighted works. The DVD standard permits unlimited transfers of the embedded movies, whereas the DIVX standard limited this right, subject to licensing. DIVX ultimately failed. See Arent, *supra* note 307.

370. See, e.g., *Starcraft*, at <http://www/battle.net/scf/faq/multi.html>.

371. See Lori Enos, *RIAA Unveils Digital Music ID Plans*, E-COMMERCE TIMES (Oct. 13, 2000), at <http://www.ecommercetimes.com/news/articles2000/001013-4.shtml>.

cases are decided. In moving from a physical environment to the digital environment, and applying our existing copyright laws to this environment, we are losing the previously clearly established right to share copies of copyrighted works in a clearly privileged manner. Thus, courts should be sensitive to the transactions costs involved in obtaining licenses to transfer and be more willing to find fair use in order to lend some support to this value in distributed access, when possible. As mentioned above, where such transactions costs appear high, courts should be free to find a right to transfer. This is particularly important, given that courts, up to now, have not had to worry about presenting such an interest.

More importantly, the above analysis clearly indicates that, in the online context, there will be fewer opportunities for clearly privileged sharing of copyrighted works, free from centralized copyright owner control. Access to copyrighted works will thus be relatively centralized, and the opportunities presented by the Internet for greater distributed circulation of such works will not be fully realized. To the extent that we are concerned about such values (and I argue that we should be), we should remain vigilant for opportunities to promote more distributed forms of access. One example not directly tied to the transfer right is the archiving of digital materials. To the extent online archives begin to come under attack on copyright grounds, the courts should be particularly sensitive to the fact that such archives, if appropriately structured, may play a significant role in ensuring distributed access to copyrighted works. Similarly, the legislature should monitor the development of the market in digital works and, to the extent that technological protection measures begin to limit distributed access to digital works as a practical matter, perhaps legislate measures to ensure that such access is available.

B. Alternatives and Anticipated Objections

Having sketched the outline of a possible notion of digital copy ownership, we can now compare it to a number of alternative approaches to adapting copyright law to the digital environment. To begin, such a concept of digital copy ownership is certainly preferable to a regime governed by the rule in *MAI*, as much of the previous analysis suggests. The rule in *MAI* essentially ignores the

complex function played by the incidents of copy ownership in existing copyright law. Because these incidents are not expressly preserved in the Copyright Act, the *MAI* court treats them as having no relevance for copyright purposes, and accordingly finds them trumped by the expanded scope of the reproduction right in the digital environment. As the above analysis has demonstrated, however, these incidents of physical copy ownership in fact play a more complex role within copyright law and therefore deserve independent consideration.

Furthermore, fair use provides only a partial solution to the problems raised by *MAI*. As indicated above, case-by-case adjudication of access to copyrighted works is not an adequate response and should be avoided if at all possible, because fair use is costly to litigate and fraught with uncertainty. Rather, the goals served by the incidents of physical copy ownership are best preserved by a clear rule privileging a copy owner's right to access digital works in his or her possession. Fair use may, however, be an adequate response to the closer question of the right to transfer digital documents. Because the right to transfer inadequately serves the functions of the physical copy, and because of countervailing considerations with respect to underlying copyright incentives, the ability to transfer may properly be subject to fair use analysis. Thus, fair use is only a partial solution.³⁷²

A number of commentators, faced with the implications of *MAI*, have called for more radical changes in the Copyright Act.³⁷³ In particular, these commentators have focused on the fact that copyright law's emphasis on the copy is a product of a particular technology and market structure. In the physical realm, a focus on copies makes sense because copies are easy to identify and serve as a rough proxy for use.³⁷⁴ Copies in the digital environment, however, are no longer easy to identify, nor do they serve as

372. See WHITE PAPER, *supra* note 10, at 79-82 (noting that courts may reject the fair use doctrine in the context of online commercial transfers); Lemley, *supra* note 14, at 583 (discussing computer network transmission rights).

373. See Litman, *supra* note 3, at 46; Nimmer & Krauthaus, *supra* note 16, at 25-26. Some have gone even further to suggest that copyright law should be abandoned in the online environment, and that authors will have to develop new ways of obtaining returns on their creative works. See, e.g., Barlow, *supra* note 7.

374. See Elkin-Koren, *supra* note 9, at 383; Litman, *supra* note 3, at 36.

adequate proxies for use, according to these commentators.³⁷⁵ Instead, copying is now a ubiquitous feature of the digital online environment. Accordingly, these commentators argue that copyright law should abandon its focus on the creation of copies and address the issues of access and use. To these commentators, the proposals I have advanced above would likely appear as improper attempts to shoehorn new technology into an older and outdated model. Although commentators are not generally too explicit in describing what a new copyright law would look like, they have sketched out some of the outlines.³⁷⁶

In my view, however, this response raises more questions than it answers. As an initial matter, enacting widespread legislative change in the copyright context is not an easy task. The most recent major overhaul of the Copyright Act in 1976 took more than twenty years to complete and involved extensive negotiations among interest groups. I doubt Congress would be willing to devote the necessary resources to such a change. (Indeed, the recent enactment of the DMCA suggests that, even if Congress were to engage in such a restructuring, the results might move copyright law in a direction that most of these commentators would find objectionable.) Moreover, restructuring copyright law to abandon its focus on the copy would indeed be a major change, given, as indicated above, the extent to which the physical copy plays an important role in existing copyright law. Such a reconstruction of the Copyright Act would give rise to substantial legal uncertainty, as the existing body of interpretive case law would be largely rendered useless and a new body of case law interpreting these new sets of rights would need to be developed. The process of coming up with a new structure would itself be fraught with uncertainty, given the difficulty of predicting the impact of changing technology. At the very least, such radical change should await better information about the likely structure and scope of the digital marketplace.³⁷⁷

375. See Litman, *supra* note 3, at 37.

376. See, e.g., Ginsburg, *supra* note 8; Litman, *supra* note 3, at 37 (discussing possible changes in copyright law to accommodate modern technology).

377. But see Peter Menell, *The Challenges of Reforming Intellectual Property Protection for Computer Software*, 94 COLUM. L. REV. 2644 (1994) (noting that legislators will have access to information if they wait, but that any subsequent legislation will be difficult to pass because by that time interests will have become entrenched).

In the absence of such information, the onus rests on supporters of more radical changes to provide a sufficiently detailed and convincing legal and market structure. None of the existing proposals comes close.

On a more substantive note, abandonment of the copy is also unwarranted because the focus on the copy still serves one of the core purposes of copyright law. Digital copies of copyrighted works can still act as substitutes for the original copy. Indeed, they can be substitutes more perfect than any in the physical world. Accordingly, digital copies still pose the same basic threat to copyright incentives. If competitors and consumers are free to make and sell copies, then the price of copies will be driven down to the marginal cost of making them, and the creator will not be able to recoup the cost of creation. Thus, copyright law should not refuse to recognize the relevance of copies. Rather, it should be more selective in deciding which types of digital copies are truly threats to the underlying incentive structure. So, for example, incidental copies made in the routers across the Internet do not pose a threat, nor do the copies made in a computer's RAM. What is called for, then, is a sensitive translation of the notion of the copy into the digital environment.

A sensitive translation does not, however, entail wholesale translation of every functional equivalent in the physical context. Some commentators, instead of calling for abandonment of copyright law's focus on the copy, have instead called for nearly literal translation of existing copy owner rights into the digital context. Thus, the ability to read and the ability to transfer must be preserved if at all possible.³⁷⁸ Yet much of the above analysis suggests that we can only discuss translation of the incidents of physical copy ownership intelligently once we have an understanding of the function they serve with respect to some larger theory or framework for copyright law. This Article has tried to identify these theories and interests and to engage in such a contextual translation of the idea of copy ownership.

Some might argue that these notions about digital copy ownership have in fact already been supplanted by an alternative legislative framework. The recently enacted DMCA gives

378. See Elkin-Koren, *supra* note 9, at 392.

substantial support to a market structure based, not on ownership of digital copies, but rather on technological protection of such copies and contractual licensing.³⁷⁹ Similarly, the Uniform Computer Information Transactions Act (UCITA), which is currently being considered by many states, provides added support to the enforceability of shrink-wrap licenses. Thus, under this view, much of the analysis set forth in this paper is largely beside the point, because these noncopyright mechanisms will trump any underlying right to access or transfer.

As an initial matter, the enactment of the DMCA and the potential adoption of the UCITA do not obviate the relevance of the above analysis, because there will still be instances in which digital copies are possessed without any attendant technological protection or without any express or implied licensing provisions. Even in a world in which technological or contractual limitations are common, there will still be many copies of copyrighted works that are unencumbered by either technology or contract. For example, works that have been improperly freed from their technical or contractual restraints may be circulated over the Internet. Similarly, in some cases, copyright owners may not find it worthwhile to incur the additional costs of contractual or technological protection for their works. In such cases, copyright law will need to set the default rules for the use of such copies.

Moreover, the nature of the default rules will have some impact on the ultimate effect of the above measures. To take one example, if digital copy owners have an unlimited right to access copies in their possession, then copyright management information purporting to set terms of such access is unenforceable. Similarly, the nature of the default rules will have an impact on the extent to which copyright owners utilize these alternative mechanisms for controlling consumer use of digital copies. By making the default rules clear, however, the above analysis will allow both copyright owners and users to make informed decisions about the extent to which such measures will be used and are needed. Thus, the structure of the underlying distribution of rights is still relevant, despite the possibility of widespread licensing and self-help.

379. See 17 U.S.C. § 101 (Supp. V 1999).

Finally, some may object that the above proposal does not adequately deal with the potential piracy threat posed by the advent of digital technology. That is, under this view, the development of digital technology and the Internet greatly decreases the cost of making and distributing copies. Without an expansion in copyright protection, incentives to create works will be undermined. By simply translating existing copyright law into a digital environment, the above proposal does not adequately deal with this new threat. Indeed, this argument is one advanced by many copyright owners in support of both the White Paper and the legislative proposals currently before Congress.

It is quite unclear to me, however, how the rule in *MAI* addresses this concern. If the concern is the increased potential for piracy presented by digital copying, then surely increasing the already underenforced substantive rights will have little impact on reducing piracy. Rather, it will only have the impact of making infringing much activity that was previously not infringing, thereby leading to increasing disrespect for existing copyright laws. Furthermore, it is not clear at all that the advent of digital technology will in fact have the feared results.³⁸⁰ Just as digital technology reduces the costs of copying, it also reduces the costs of distribution for copyright owners and the costs of detecting infringement.³⁸¹ Moreover, the copyright industries have always tolerated some degree of unauthorized copying. The question in the digital environment is how much, and the net impact of digital technology cannot yet be predicted with any certainty. Certainly, the substantive distribution of rights should not be used to address this problem.

CONCLUSION

The advent of digital technology is dramatically changing the familiar landscape of copyright law. As copyrighted works become distributed increasingly in intangible, digital form, the courts will continue to struggle to adapt our existing copyright laws, developed in response to the realities of the physical hard-copy world, to a

380. See Lemley, *supra* note 14, at 583.

381. See Adelstein & Peretz, *supra* note 265, at 228.

much different world, one in which these realities no longer hold. In this Article, I have attempted to provide a number of guideposts, to help courts considering the conceptual challenges presented by this change. Copyright law can, in fact, be adapted to the new realities of the digital environment, but such adaptation will need to be undertaken carefully, with a solid understanding of the theories justifying copyright protection and a realistic skepticism about the ability to predict future technology and market structures.