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The Incredible Shrinking First-Sale Rule: Are Software Resale Limits Lawful?

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THE INCREDIBLE SHRINKING FIRST-SALE RULE: ARE SOFTWARE RESALE LIMITS LAWFUL?

John A. Rothchild*

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INTRODUCTION

I bought a copy of Neal Stephenson’s book Snow Crash when it came out in paperback. It was a good read, but it’s unlikely I will want to read it again, so I am inclined either to offer it for sale or to donate it to the public library. The book embodies a copyright-protected literary work, and as a copyright teacher I like to be careful about such things, so I checked the copyright laws and determined that neither of my proposed methods of getting rid of the book will infringe the copyright of Bantam Books, the publisher.

I also bought a copy of Quicken Premier 2003, personal finance
software from Intuit, on a CD-ROM. This computer program is likewise a literary work protected by copyright. If once I have no further use for it I sell the CD-ROM, or give it away, will I have infringed Intuit's copyright? Another question: The license agreement that appeared on my computer's monitor when I installed it (yes, I actually read those things) says that I am not allowed to "resell" the CD-ROM "for profit," nor may I "distribute" it. If I ignore that prohibition and sell the CD-ROM for more than my purchase price, or otherwise "distribute" it, will I have breached my contractual obligations?

A layperson, whose intuitions have not been rearranged by close study of the Copyright Act, will likely fail to see any distinction between these two products that should result in differing treatment under the copyright laws. I bought each of them: shouldn't I be allowed to sell or give away either one without risking infringing somebody's copyright? The layperson (and even the contracts teacher) may not be so sure about the breach-of-contract question. If I assented to the no-distribution term, am I not bound by it?

Although a book publisher is unlikely to invoke its copyright to prevent me from reselling one of its products, software publishers frequently have asserted that their copyright empowers them to prevent me from disposing of my disks containing their software. In fact, the software publisher will advise me that, contrary to the distinct impression I had when I walked out of the store with a paid-for shrinkwrapped box in my hand, I am not in fact the owner of the product, but only a "licensee." A number of courts have agreed with this proposition, and held that I will infringe the software publisher's copyright if I resell the CD-ROM without the publisher's authorization. The Copyright Office itself has stated that the donee of a CD-ROM containing a copyrighted computer program will infringe the copyright of the software publisher if she loads the...
software onto her computer.\(^3\)

In this Article I argue that, in all but the most atypical situations, the Copyright Act grants the software publisher no more authority to prohibit my resale of the CD-ROM in my example than it grants the book publisher to prohibit my resale of the book.\(^4\) That is to say, neither publisher has any say over my resale of its product. According to a provision of the Act called the “first-sale doctrine,” I have an unrestricted right to resell a copy of a copyrighted work as long as I am the owner of that copy.\(^5\) Everyone agrees that I am the owner of the book I bought. But software publishers employ several devices in an effort to prevent me from becoming the owner of copies of their products. My argument will show that in almost all cases these efforts are legally ineffective: nearly everyone who believes himself to have purchased a copy of a computer program has in fact done so. Furthermore, attempts by software publishers to create a legal restriction on use that inheres in and travels with the copy itself should, consonantly with well-established principles, be held ineffective. As for the contract claim, I show that the Copyright Act preempts state law to the extent it would allow enforcement of a no-distribution provision.

After clarifying existing doctrine and showing where courts have gone wrong, I argue that this is an appropriate outcome: the policy considerations that justify legal rules promoting free alienability of copies of copyrighted works in general, and of items of personal property still more generally, apply just as strongly to software copies.

Some of the key points I make in the course of my argument are the following:

- The applicability of the first-sale doctrine as a limitation on the software publisher's public distribution right depends on ownership of the material object on which the software is distributed, usually a CD-ROM disk or a floppy diskette, not on ownership of the copyright to the computer program. The majority of courts that have addressed the first-sale doctrine as applied to software transactions have failed to grasp this utterly fundamental point.

- The software publisher's characterization of a software

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3. See infra note 85 and accompanying text.

4. My focus is on software, since most of the recent efforts by copyright owners to control alienation of copies in the hands of end users have been applied to that product. However, the same methods have occasionally been applied to other types of information goods, and my critique of their use is equally applicable to those other contexts.

transaction as a "license" rather than a sale obscures the fact that every transaction involving acquisition of a software copy involves two separate components: a license to use the copyrighted computer program (or conceivably, but rarely, a transfer of ownership of the copyright), and a sale of the disk or other material object on which the software is distributed (or conceivably, but rarely, a lease or other bailment of that object). Framing the issue as whether a transaction involves a license or a sale has led numerous courts and commentators into error.

- One is the "owner" of a software copy for purposes of the first-sale doctrine if she acquired it in a transaction that is a "sale" under state law, regardless of any restrictions on use of the copy that the contract of sale imposes. One is not the owner of the copy if she acquired it in a transaction that is a lease or other bailment.

- A statement in a software license agreement, declaring that the software publisher retains ownership of the software, or that the acquirer is merely a "licensee" and not an owner of the software, has no effect on ownership of the software copy, and therefore is irrelevant to whether the publisher's distribution right with respect to that copy is exhausted by virtue of the first-sale doctrine.

- A declaration in the contract accompanying a software transaction that the software publisher "licenses" the material object on which the software is distributed does not, without more, prevent the acquirer from becoming the owner of the copy. In almost all cases, what the contract characterizes as a "license" of the material object is, in legal effect, a sale. Characterization of such a transaction as a "license" is an effort to control legal analysis through misdirection.

- A contractual restriction on a software distributor's authority to dispose of software copies does not prevent one who acquires the copy via the distributor from becoming its owner.

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6. By "software copy" I mean a material object in which a computer program is embodied. This might be a floppy diskette, CD-ROM, hard drive, flash memory, tape cartridge, or read only memory (ROM) chip, among other possibilities. The distinction between the software copy and the computer program embodied in it is crucial to my argument, and to proper application of the first-sale doctrine.

7. I use "acquirer" as a neutral term, to avoid either begging or conceding the issue whether an end user is the owner of the material object on which software is distributed. "Purchaser" implies that the acquirer owns the copy of the software that the sales clerk handed to her when she paid her money; "licensee" implies that she does not.
Indeed, even a distributor that does not itself hold title to the software copy can transmit good title to a good-faith purchaser.

- Attempts by software publishers to impose a use restriction that runs with the software copy, and binds any possessor of the copy, are unenforceable.

- The characterization that a software publisher applies to a transaction involving a software copy does not establish the legal effect of the transaction, which is determined by the economic realities underlying the transaction. Therefore, calling a transaction a "lease" rather than a sale does not make it so, and does not prevent the acquirer from becoming the owner of the copy entitled to the prerogatives that the first-sale doctrine confers.

- An end user who acquires a software copy that was distributed through a standard retail chain of distribution is invariably the owner of that copy, and is free to dispose of it as permitted by the first-sale doctrine. The same is true of one who acquires the software through an authorized digital download.

- If an end user acquires software as part of a hardware/software system, and the user is the purchaser (rather than lessee) of the hardware, the user is ipso facto the owner of the software copy. That is because the hardware is the software copy.

- A software publisher can avoid the first-sale limitation on its distribution right if it leases rather than sells copies of its software, or if it eschews distributing copies altogether and operates as an application service provider.

- The same policy considerations that gave rise to the first-sale doctrine more than a century ago justify application of the doctrine to software copies. The differences between software and other types of products embodying copyrighted works offer only equivocal support for an argument that the scope of the public distribution right with respect to software copies should not be limited by the first-sale doctrine.

- The Copyright Act preempts state law to the extent it would permit enforcement of contractual limitations on the authority of an end user to sell or otherwise alienate a software copy in his possession.

Part I of this Article addresses efforts by software publishers to extend the scope of their public distribution right beyond the limits that the first-sale doctrine establishes, as well as their efforts to
impose restrictions that inhere in the software copy itself. Part I(A) explains and interprets the relevant provisions of the Copyright Act, developing a methodology for determining whether the possessor of a copy of a copyrighted work is the "owner" of that copy for purposes of the first-sale doctrine.

Part I(B)(1) – (3) describes and critiques three strategies that software publishers have invoked in an effort to expand their control over copies of their products. These strategies consist of (1) declaring that acquirers of copies of their software are "licensees" and therefore not "owners" for purposes of the first-sale doctrine; (2) placing restrictions on the distributors of their software that purport to limit the distributors' authority to transfer title of software copies; and (3) using clickwrap licenses to create restrictions that travel with the software copies. The critiques show that these strategies are flawed, and that upon a proper application of the law of copyright, the law of commercial transactions, and the common law of property, the strategies are ineffective to accomplish the software publishers' purposes. A number of courts have, however, erroneously accepted the publishers' arguments. Part I(B)(4) speculates about the source of the courts' confusion.

Part I(B)(5) summarizes the principles, derived from the preceding sections, that courts should apply in determining whether end users have a right to sell or give away a particular copy.

Part I(C) applies those principles to three common paradigms that are employed in distributing software copies to the public. It concludes that under each of these paradigms, the end user generally becomes the owner of the material object on which the software is distributed, and is therefore freed from the software publisher's public distribution right with respect to that object. Part I(D) continues by describing two distribution methods that software publishers could employ to prevent applicability of the first-sale doctrine to copies of their products—leasing rather than selling copies of their software, and avoiding distribution of copies altogether.

Part I(E) inquires whether existing legal doctrine, as clarified in Part I(A) – (D), is justified, or whether it should be modified to give software publishers greater control over copies of their software in the hands of end users. It finds that arguments for revision of current doctrine are equivocal at best.

Part II of the Article addresses the enforceability of contractual restrictions on the authority of an end user to alienate a copy of a software program. Part II(A) provides a general introduction to the Copyright Act's preemption provision, section 301. Part II(B) examines the applicability of section 301 to contract claims. Part II(C) applies section 301 to contract provisions that purport to limit
the right of the possessor of a software copy to alienate the copy, and concludes that state contract law is preempted to the extent it would permit enforcement of such a term. Part II(D) considers the application of general conflicts preemption to such contract provisions, finding enforcement of such provisions preempted under this mode of analysis too. Finally, Part II(E) argues that many software license agreements should be held unenforceable for lack of consideration.

I. RESTRAINING ALIENATION OF SOFTWARE COPIES THROUGH EXERCISE OF COPYRIGHT

To understand how software publishers seek to use the law of copyright to limit the secondary market in material objects embodying their products, it is necessary to have a basic understanding of relevant aspects of copyright law.

A. Copyright law

1. Copyright basics

The Copyright Act grants authors a set of rights with respect to certain intellectual creations. Works that may qualify for protection include, for example, the words of a book, the notes of a song, the colors and shape of a piece of visual art, and the code making up a computer program. To qualify for copyright protection, a work must meet several threshold requirements. First, the work must be an "original" one: the work must originate with the author, rather than being copied from some other work, and it must exhibit some degree of creativity. Second, the work must be "fixed" or embodied in some material object, such as ink on paper (books), paint on canvas (paintings), grooves stamped into vinyl (record albums), dye coloring celluloid (motion picture film), orientations of dipoles on magnetic media (audio tapes, videotapes, floppy diskettes, flash memory), or

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9. A non-exclusive list of the types of works that may be protected by copyright is set forth in 17 U.S.C. § 102(a), and includes literary works, musical works, dramatic works, pantomimes and choreographic works, pictorial, graphic, and sculptural works, motion pictures and other audiovisual works, sound recordings, and architectural works.
10. See Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 345 (1991) ("Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity."). The creativity criterion is easy to meet. Id. See also Bleistein v. Donaldson Lithographic Co., 188 U.S. 239, 250 (1903) ("The copy is the personal reaction of an individual upon nature. Personality always contains something unique."); Alfred Bell & Co. v. Catalda Fine Arts, Inc., 191 F.2d 99, 102 (2d Cir. 1951) ("No large measure of novelty is necessary.").
pits and lands on optical media (CDs, CD-ROMs, DVDs). The creation of a work of authorship within the scope of copyright protection gives rise to a set of rights to control uses of that work. These are referred to as the copyright owner's "exclusive rights," and consist of the rights to make a copy of the copyrighted work, to create a new work based on the copyrighted work, to distribute copies of the work to the public, to perform the work publicly, and to display the work publicly. The "exclusive" nature of these rights means that the exercise of any one of them, without authorization from the copyright owner, is a violation of the copyright owner's rights, which the Act terms "infringement" of copyright.

Thus if Laurie owns the copyright to a literary work embodied in a book, and Pat, without Laurie's authorization, makes a copy of the book, Pat has infringed Laurie's reproduction right (assuming no statutory exception applies). Likewise, if, without Laurie's authorization, Pat distributes a copy of the book to the public, she infringes Laurie's public distribution right; if she makes a movie based on the book, she infringes Laurie's adaptation right; and if she publicly reads the book out loud, she infringes Laurie's public performance right.

These rights, although exclusive to the copyright owner, are not plenary, but are limited in various ways. The most important of these limitations are (1) exclusion of the right to control "fair use" of the work, which allows anyone to use the work, without authorization from the copyright owner, in ways that promote the purposes of copyright law and do not impinge unduly on the owner's economic interests in the work; (2) the "idea-expression dichotomy," which grants the owner exclusive rights with respect to the work's expression, but denies any protection to the ideas underlying the work; (3) the expiration of the copyright after a term of years; and...
(4) the first-sale doctrine, which with certain exceptions limits the copyright owner's distribution right so that it applies only to the first sale of a particular copy, and allows the owner of a copy to sell or otherwise dispose of that copy without the authorization of the copyright owner.18

The exclusive rights that the Copyright Act grants belong initially to the "author or authors" of the work.19 But ownership of the copyright need not remain with the author. Like other property rights, a copyright may be transferred from one owner to another.20 Either the entire copyright, or some subset of the rights included within the grant of copyright, may be transferred.21 As an alternative to transferring ownership of the copyright, a copyright owner may grant a "nonexclusive license" to use the copyrighted work.22 A nonexclusive licensee, like an assignee, acquires the right to make certain uses of the work, as specified in the license.23 However, the licensee does not become the owner of the copyright, and the copyright owner retains the right to grant the same license to others.

2. The distribution right and first sale

The public distribution right entitles the copyright owner to prevent others from distributing copies of the copyrighted work to the
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public.24 As the wording of section 106(3) indicates, a copyright owner has the right to control distribution of copies of its works not only by sale, but also by rental or by lending to the public.25 There is authority for the proposition that even a gift of a copy can constitute a public distribution.26 The public distribution right is, however, only a right to control distributions "to the public."27 This limitation implies that transfers of copies that are not "to the public" are not within the copyright owner's control, but the dividing line between public and non-public distributions is not easy to discern. While it is clear that distribution of only a single copy can constitute distribution "to the public,"28 it is not so clear how to classify a distribution consisting of a gift of a copy in a non-commercial context.29

Since the public distribution right gives the copyright owner control over distribution of copies of her work, it would seem on its face to restrain one who has purchased a copy from redistributing it publicly. For example, the owner of a book would seem to need the

24. See 17 U.S.C. § 106(3) (giving the copyright owner the exclusive right "to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending"). The distribution right has its roots in the first federal copyright statute, the 1790 Act, which granted the copyright owner "the sole right and liberty of printing, reprinting, publishing and vending" copies of the work. Act of May 31, 1790, ch. 15, § 1, 1 Stat. 124, 124. In fact, the distribution right is older than the 1790 Act. The English Statute of Anne, which is generally regarded as the first modern copyright statute, and upon which the 1790 Act is modeled, forbids any person to "sell, publish, or expose to Sale" any book without the authority of the copyright owner. Statute of Anne, 8 Ann., c. 19 (1710) (Eng.).

25. See Hotaling v. Church of Jesus Christ of Latter-Day Saints, 118 F.3d 199, 203 (4th Cir. 1997) (library that made an unauthorized copy of a work available for borrowing by the public infringed copyright owner's distribution right).

26. The House Report accompanying the 1976 Act says that the distribution right includes the right to control distribution "by sale, gift, loan, or some rental or lease arrangement." HOUSE REPORT, supra note 11, at 62 (emphasis added). See also Ford Motor Co. v. Summit Motor Prods., Inc., 930 F.2d 277, 299 (3d Cir. 1991) ("The term 'other transfer of ownership' is broad enough to encompass gifts"); Tangorre v. Mako's, Inc., No. 01 Civ. 4430 (BSJ) (DF), 2003 WL 470577, at *10 (S.D.N.Y. 2003) (Magistrate Judge's Report and Recommendation) (business engaged in public distribution when it gave copies of a swimsuit-model calendar to its customers). For a contrary view, see MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8.11[A] (assimilating the 1976 Act's public distribution right to the 1909 Act's right to "vend," and concluding that the "lack of pecuniary remuneration takes the transaction out of the 'vend' category").


28. The House Report describes the distribution right as extending to "the first public distribution of an authorized copy or phonorecord of his work." HOUSE REPORT, supra note 11, at 62 (emphasis added); see also Ford Motor Co., 930 F.2d at 299-300 ("[A] violation of section 106(3) can . . . occur when illicit copies of a copyrighted work are only distributed to one person . . . ").

copyright owner's permission to resell the book at a garage sale. This is not so, however, because the distribution right is limited by the first-sale doctrine, which allows the owner of a copy to transfer it to somebody else without obtaining the copyright owner's permission. The doctrine takes its name from the fact that it limits the copyright owner's rights to controlling the first sale of a particular copy: the copyright owner has no right to control subsequent sales of that copy. Under the first-sale doctrine, the owner of a copy may freely dispose of it either by sale, or by other methods such as donation, lending, lease, or rental. Thus, for example, the copyright owner of a book may not invoke its public distribution right to prevent the owner of a copy of the book from disposing of it by donating it to a library, lending it to a friend, renting it, or selling it.

The first-sale doctrine originated in judicial interpretation of the copyright law. The Supreme Court's first acknowledgement of the doctrine came in the 1908 case Bobbs-Merrill Co. v. Straus. The publisher and copyright owner of a book had sold it with a stipulation, printed on the copyright page of each copy of the book, prescribing a minimum resale price: "The price of this book at retail is one dollar net. No dealer is licensed to sell it at a less price, and a sale at a less price will be treated as an infringement of the copyright." The defendant, R.H. Macy & Co., sold the book for 89 cents. The publisher sought to restrain such sales, as an infringement of its exclusive right to "vend" copies of its copyrighted work.

30. See 17 U.S.C. § 109(a) ("[T]he owner of a particular copy or phonorecord lawfully made . . . is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord.").

31. Note that the first-sale doctrine limits the public distribution right, and to some extent the public display right, id. § 109(c), but does not limit any of the other exclusive rights of the copyright owner. Thus, your ownership of a music CD does not entitle you to make a copy of it, to make a new work based on it, or to play it publicly.

32. Lower courts had earlier articulated the first-sale doctrine. E.g., Harrison v. Maynard, Merrill & Co., 61 F. 689, 691 (2d Cir. 1894) ("The new purchaser cannot reprint the copy. He cannot print or publish a new edition of the book; but, the copy having been absolutely sold to him, the ordinary incidents of ownership in personal property, among which is the right of alienation, attach to it."); Henry Bill Pub'l'g Co. v. Smythe, 27 F. 914, 925 (C.C.S.D. Ohio 1886) ("Whenever [the copyright owner] parts with that ownership [of a copy], the ordinary incident of alienation attaches to the particular copy parted with, in favor of the transferee, and he cannot be deprived of it.").


34. Id. at 341 (internal quotes omitted).

35. Id. at 342.

36. Id. at 343. The exclusive right to "vend" under the 1831 Act, in effect when this case was decided, is the equivalent of what, under the 1976 Act, is currently termed the right to distribute publicly. See Act of Feb. 3, 1831, ch. 16, § 1, 4 Stat. 436, 436
In rejecting the publisher's claim, the Court held that the copyright owner's exclusive right to vend does not limit the right of the owner of a copy to resell it: "To add to the right of exclusive sale the authority to control all future retail sales, by a notice that such sales must be made at a fixed sum, would give a right not included in the terms of the statute, and, in our view, extend its operation, by construction, beyond its meaning . . . ."37

Although the holding of Bobbs-Merrill Co. v. Straus concerns the attempt by a copyright owner to control the price at which a material object holding a copyrighted work may be resold, the Court's rationale is based upon a more general common-law aversion to restraints on alienation, and therefore extends more broadly.38 In the year following the decision, Congress codified this broader version in the Copyright Act of 1909.39 The current Act expresses the first-sale doctrine as follows:

Notwithstanding the provisions of section 106(3), the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of

37. Bobbs-Merrill Co., 210 U.S. at 351. The first-sale doctrine has a counterpart in patent law: once the patentee sells a patented article, its right to control the use or resale of that article is exhausted. See Adams v. Burke, 84 U.S. 453, 456 (1873) ("[W]hen the patentee, or the person having his rights, sells a machine or instrument whose sole value is in its use, he receives the consideration for its use and he parts with the right to restrict that use."); Intel Corp. v. ULSI Sys. Tech., Inc., 995 F.2d 1566, 1568 (Fed. Cir. 1993) ("The law is well settled that an authorized sale of a patented product places that product beyond the reach of the patent.").

38. See infra text accompanying notes 162-67.

39. See Quality King Distribs., Inc. v. L'anza Research Int'l, Inc., 523 U.S. 135, 141-42 (1998) ("Congress subsequently codified our holding in Bobbs-Merrill that the exclusive right to 'vend' was limited to first sales of the work."). The 1909 Act provides: "[N]othing in this Act shall be deemed to forbid, prevent, or restrict the transfer of any copy of a copyrighted work the possession of which has been lawfully obtained." Act of Mar. 4, 1909, ch. 320, § 41, 35 Stat. 1075, 1084 (formerly codified at 17 U.S.C. § 27). While this provision literally extends the right of alienation to anyone in lawful possession of a copy, courts have interpreted it as meaning that the copyright owner's distribution right is exhausted only once the copy has been lawfully sold. See United States v. Wise, 550 F.2d 1180, 1187 (9th Cir. 1977) ("Although the statute speaks in terms of a transfer of possession, the judicial gloss on the statute requires a transfer of title before a 'first sale' can occur."); see also Platt & Munk Co. v. Republic Graphics, Inc., 315 F.2d 847, 851 (2d Cir. 1963) ("If lawful possession by another sufficed to deprive the copyright proprietor of his right to control the transfer of the copyrighted objects, any bailee of such objects could sell them without infringing the copyright, whatever his liability for conversion might be."). The phrasing of the current statute's version of the first-sale doctrine, which grants the alienation right to "the owner of a particular copy or phonorecord lawfully made," 17 U.S.C. § 109(a) (emphasis added), reflects this understanding.
the possession of that copy or phonorecord.  

The first-sale doctrine, as a limitation on the copyright owner's exclusive right to distribute publicly, is itself subject to significant limitations. In 1984, Congress amended section 109 of the Copyright Act to deprive the owner of a phonorecord of the right he would otherwise have under the first-sale doctrine to dispose of the phonorecord "by rental, lease, or lending" for commercial purposes. This amendment came in response to the phenomenon of record-rental stores: commercial establishments that rented phonograph albums for a brief period of time, perhaps one to three days, sometimes together with blank cassette tapes. It was generally understood that the customers of these stores were making unauthorized copies of the record albums onto cassette tapes.

For similar reasons, in 1990 Congress amended section 109 once again, to limit the rights that the owner of a copy of copyrighted software would otherwise enjoy under the first-sale doctrine. As a result of this amendment, a "person in possession of a particular copy of a computer program" is likewise not permitted to dispose of possession of that copy "by rental, lease, or lending" for commercial purposes.

Because of the first-sale doctrine, the owner of a book, painting, music CD, movie on videotape, or software on CD-ROM does not

41. In the terminology that the Copyright Act employs, the material object in which a work is embodied is called a "phonorecord," if it holds sounds (other than the sounds accompanying a motion picture), or a "copy," if it holds something else. See id. § 101 (definition of "copies"; definition of "phonorecords"). For simplicity, I will generally use "copy" to refer to both types of material objects.
43. See S. REP. No. 98-162, at 2 (1983) ("The Committee has no doubt that the purpose and result of record rentals is to enable and encourage customers to tape their rented albums at home."); 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) (discussing the practice of record rentals in the 1980s); R. Anthony Reese, The First Sale Doctrine in the Era of Digital Networks, 44 B.C. L. REV. 577, 619-20 (2003) ("Congress heard evidence that many of the two hundred or so record rental establishments in the United States sold blank tapes to renters and engaged in other practices that seemed likely to encourage renters to make copies.").
implicate the copyright owner's distribution right when she sells or gives away her copy. The owner of a copy of most types of copyrighted works is also free to dispose of it by rental, lease or lending. Thus, movie rental stores flourish, whether the movie studios like it or not.45 The owner of an artwork may rent it, and some colleges are experimenting with textbook rental programs.46 However, by virtue of the 1984 and 1990 amendments to section 109, phonorecords and copies of computer software generally may not, without the copyright owner's permission, be rented, leased, or loaned for commercial advantage.47

The first-sale doctrine thus limits the ability of a software publisher to control the disposition of copies of its products once they have been sold. Why might a software publisher want to exert control over those copies? Like manufacturers generally, software publishers prefer, all else being equal, to ship more of their products rather than less. When the end user of a good lends, gives, sells, or rents it to somebody else, the manufacturer of the item may lose a sale.48 A manufacturer that can control the secondary market in its products may thus be able to increase its sales. In addition, by suppressing competition with its own products, the manufacturer may be able to

45. Historically, they did not like it. The movie studios expended great efforts seeking an amendment to the Copyright Act that would treat movies like phonorecords and computer software for purposes of the first-sale doctrine. Bills that would accomplish this were introduced, but not enacted, in several successive congressional sessions. Julie Kane-Ritsch, The Videotape Rental Controversy: Copyright Infringement or Market Necessity?, 18 J. MARSHALL L. REV. 285, 302-03 (1985). The studios also sought, unsuccessfully, to eliminate the rental market in videotapes by having videocassette recorders declared illegal. See Sony Corp. v. Universal City Studios, Inc., 464 U.S. 417, 456 (1984) (holding the sale of video tape recorders does not constitute copyright infringement). Only a few years after that ruling, discovering that they were making more money from video sales and rentals than from theatrical showings, the movie studios learned to love the videocassette recorder. As Jack Valenti, long-time President of the Motion Picture Association of America, expressed it: "So when I fetch from my memory that long time ago when I first met a VCR, I can only tell you if I thought I was going to be sick then, I am now able to say that I am just fine." Kenneth R. Corsello, Note, The Computer Software Rental Amendments Act of 1990: Another Bend in the First Sale Doctrine, 41 CATH. U.L. REV. 177, 192 n.79 (1991) (quoting Software Rental Amendments of 1990: Hearing Before the Subcomm. on Courts, Intellectual Property and the Admin. of Justice of the House Comm. on the Judiciary, 101st Cong., 2d Sess. 2 (1990)).

46. See Stephanie Kang, New Options for Cheaper Textbooks, WALL ST. J., Aug. 24, 2004, at D1 (describing programs allowing students to rent textbooks at $50-80 a semester).


48. Then again, it may not. The second user may be willing to buy the item used at a reduced price, or receive it for free as a gift or loan, but may be unwilling to pay full price for it. Transfers via the secondary market may therefore allow more people to get the use of goods without depriving the manufacturer of any sales.
maintain a higher selling price.

The perceived benefits of control over the secondary market give software publishers a strong incentive to prevent the users of their products from becoming the "owners" of the material objects on which the software is distributed, thereby avoiding application of the first-sale doctrine.

3. When is one the "owner" of a copy?

As discussed in the preceding section, one who is in lawful possession of a copy of a copyrighted work is entitled to the benefit of the first-sale doctrine if she is the "owner" of that copy. Deciding whether a person is the owner of a particular copy creates some difficulty, stemming from the ill-defined nature of the concept of ownership in our legal system.

At the outset, we must recognize that a person's status as the "owner" of an object does not necessarily mean that he is free to dispose of it however he wishes. The law imposes numerous limitations on the uses one may make both of real property that one owns in fee simple absolute, and of one's personal property. Indeed, the Copyright Act itself provides that the owner of a material object containing a copyright-protected work may not dispose of that object as he chooses. The mere existence of a limitation on the use that one may make of a copy of a copyrighted work that is imposed by law therefore does not entail the conclusion that the possessor of that copy is not its owner for purposes of section 109(a).

On the other hand, use limitations that are imposed by contract, rather than by law, may well have the effect of preventing the

49. See RESTATEMENT (FIRST) OF PROP. § 10 cmt. c (1936) ("The owner may part with many of the rights, powers, privileges and immunities that constitute complete property and his relation to the thing is still termed ownership both in this Restatement and as a matter of popular usage.").


51. For example, you may not drive your car without a license or while under the influence; you may not swing your baseball bat into somebody else's Ming vase; you may not play your trumpet on a neighborhood street at 3:00 a.m.

52. Section 106(1) of the Copyright Act, for example, denies you the right to place a book that you own on the glass of a photocopy machine, create multiple copies, and sell them in competition with the book's publisher. 17 U.S.C. § 106(1).

53. Of course there is no such thing as a purely private enforcement paradigm: private contracts are enforced through mechanisms established by the state. See Margaret Jane Radin & R. Polk Wagner, The Myth of Private Ordering: Rediscovering Legal Realism in Cyberspace, 73 CHI.-KENT L. REV. 1295, 1295-96 (1998). Still, it is useful to distinguish between constraints that have their origin in private agreements and those which are imposed solely by law.
rightful possessor of a copy of a copyrighted work from being its owner. For example, if you possess such a copy pursuant to a contract providing that you are the lessee of the copy—as is the case, for example, when you rent a movie DVD from a video-rental store—then you are not its owner, and are not entitled to the prerogatives that section 109(a) confers.

The Copyright Act does not contain a definition of "owner" or "ownership," and the primary source of legislative history, the 1976 House Report, is not helpful. We must therefore assume that Congress intended the ordinary meaning of the term, taking account of the context and purposes of the statute. State common law may serve as a source of this ordinary meaning. However, at common law ownership is not a well-defined concept, and therefore reliance upon the non-technical meaning of the term is unavoidable.

One possible non-technical gloss on ownership is that you are the owner of a copy if you acquire it through a transaction that places no contractual restrictions on your disposition of it. This definition of ownership probably accords with many people's ordinary understanding of the term. However, this interpretation would not effectuate Congress's intent in adopting the first-sale rule. The rationale for the first-sale doctrine is that once the copyright owner has sold a copy at the price that he has set, he has obtained all the


55. See Miss. Band of Choctaw Indians v. Holyfield, 490 U.S. 30, 47 (1989) ("We have often stated that in the absence of a statutory definition we 'start with the assumption that the legislative purpose is expressed by the ordinary meaning of the words used.' We do so, of course, in the light of the 'object and policy' of the statute. That we are dealing with a uniform federal rather than a state definition does not, of course, prevent us from drawing on general state-law principles to determine 'the ordinary meaning of the words used.'") (citations omitted).

56. See id. ("Well-settled state law can inform our understanding of what Congress had in mind when it employed a term it did not define.").

57. See Blumenfield v. United States, 306 F.2d 892, 900 (8th Cir. 1962) ("[T]he word 'owner' has no precise or definite meaning and... the word must be examined in its context and setting to determine the meaning intended."); Realty Trust Co. v. Craddock, 112 S.W.2d 440, 443 (Tex. 1938) ("The meaning of the term owner is not the same under all circumstances. It is not a technical term or word at all, but one of wide application in various connections."); Animal Rescue League of Boston v. Bourne's Assessors, 37 N.E.2d 1019, 1021 (Mass. 1941) ("The term 'owner' as it appears in various statutes... is one of flexible meaning depending upon the other language of the particular statute in which it is employed and the purpose and aim of the statute. It varies from an absolute proprietary interest to a mere possessory right.").

58. See, e.g., Bush v. State, 194 S.W. 857, 858 (Ark. 1917) ("In statutes prescribing certain duties to be performed by the 'owners' of railroad companies and providing a penalty for failure to perform those duties, it is held that the word 'owners' is used in the popular rather than in the technical sense....").
revenue to which the statute entitles him, with respect to his public distribution right in connection with that particular copy. Thus, an unimportant (and as a practical matter unenforceable) contractual limitation on the acquirer’s right to use the copy—such as a prohibition against using it between 2:00 and 3:00 a.m. on Tuesdays, or against taking it to the Gobi Desert—cannot prevent exhaustion of the distribution right, since in that case the copyright owner would have obtained full (or nearly full) price for the initial sale-with-restrictions, while retaining the right to extract additional revenue from the purchaser’s resale of it. On the other hand, a more significant limitation on the acquirer’s use of a copy, such as an enforced requirement to return it at some time during its useful life, as in the case of a lease or other bailment, is likely to prevent the copyright owner from obtaining that full quantum of revenue, since possession so restricted is worth less to an acquirer than unrestricted possession.

The possible limitations on an acquirer’s rights with respect to a copy may be arranged along a spectrum, with outright sale at one end, lease or other bailment at the other, and variations of sales-with-restrictions in between:

Sale   Sales-with-restrictions   Lease

The question, then, is whether any of these intermediate, sales-with-restrictions transactions should be deemed not to constitute a first sale. I believe the statute requires a negative answer to this question. While a lease or other bailment of a copy does not

59. See Bobbs-Merrill Co. v. Straus, 210 U.S. 339, 351 (1908) (“The owner of the copyright in this case did sell copies of the book in quantities and at a price satisfactory to it. It has exercised the right to vend.”); Parfums Givenchy, Inc. v. C & C Beauty Sales, Inc., 832 F. Supp. 1378, 1389 (C.D. Cal. 1993) (“[T]he distribution right and the first sale doctrine rest on the principle that the copyright owner is entitled to realize no more and no less than the full value of each copy or phonorecord upon its disposition.”); Burke & Van Heusen, Inc. v. Arrow Drug, Inc., 233 F. Supp. 881, 884 (E.D. Pa. 1964) (“[T]he ultimate question under the ‘first sale’ doctrine is whether or not there has been such a disposition of the copyrighted article that it may fairly be said that the copyright proprietor has received his reward for its use.”).

60. “The word ‘bailment’ is generally defined as meaning a delivery of property for some particular purpose on an express or implied contract that after the purpose has been fulfilled the property will be returned to the bailor, or dealt with as he directs.” 8 C.J.S. Bailments § 2 (1988).
constitute a first sale, a transaction that imposes any lesser restriction on the acquirer's right to dispose of the copy, in the form of a sale-with-restrictions, is a first sale. That this is the correct gloss on "owner" in section 109(a) is supported by several observations.

First, this interpretation corresponds with the ordinary understanding of ownership. In a lease or other bailment, the acquirer must return the copy at some point. In a sale-with-restrictions, on the other hand, the acquirer may keep the copy indefinitely, or destroy it with impunity. In ordinary understanding, if you are the "owner" of some item you are free to treat it as badly as you like, and are under no obligation to return it.

Second, the same result follows from an alternative interpretative approach, which focuses on the nature of the transaction through which the copy is distributed, rather than on the nature of the resulting property relation between the copy and the acquirer. That is, instead of asking whether the acquirer of the copy is its "owner," we ask whether the transaction through which she acquired it is a "sale." Transforming the inquiry in this way is supportable, for several reasons: the Copyright Act occasionally uses the terms "sale" and "ownership" as cognates; the discussion of the first-sale doctrine in the 1976 House Report does the same; courts sometimes analyze the question of ownership under section 109(a) by ascertaining whether the transaction is a sale; and it is, after all,

61. The court applied this principle in United States v. Wise, 550 F.2d 1180, 1192 (9th Cir. 1977), holding that a transaction in which actress Vanessa Redgrave paid $401.59 for a print of the movie "CAMELOT" (apparently the studio's cost of making the copy), and was allowed to retain it indefinitely, but was required to keep it in her possession at all times, was "a sale with restrictions on the use of the print." Id.


63. For example, the definition of "publication" in section 101 refers to distribution of copies or phonorecords "by sale or other transfer of ownership." 17 U.S.C. § 101.

64. See HOUSE REPORT, supra note 11, at 79 (indicating that an "outright sale" of a book is an example of a situation "where the copyright owner has transferred ownership").

65. See, e.g., Quality King Distrib., Inc. v. Lanza Research Int'l, Inc., 523 U.S. 135, 145 (1998) ("After the first sale of a copyrighted item 'lawfully made under this title,' any subsequent purchaser, whether from a domestic or from a foreign reseller, is obviously an 'owner' of that item."); Parfums Givenchy, Inc. v. Drug Emporium, Inc., 38 F.3d 477, 480 (9th Cir. 1994) ("However, under the 'first sale' doctrine, embodied in § 109(a) of the Copyright Act, ... a sale of a 'lawfully made' copy terminates the copyright holder's authority to interfere with subsequent sales or distribution of that particular copy."); Novell, Inc. v. Network Trade Ctr., Inc., 25 F. Supp. 2d 1218, 1229 (D. Utah 1997) ("If it is established that the transaction wherein the end-user obtains possession of the software is a sale, the so called 'first sale' doctrine, applies.").
called the first \textit{sale} doctrine.\footnote{Under European Community law, the first-sale doctrine with respect to computer programs is expressed in terms of "sale," rather than transfer of "ownership": "The first sale in the Community of a copy of a program by the rightholder or with his consent shall exhaust the distribution right within the Community of that copy . . . ." Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs, art. 4(c), 1991 O.J. (L 122) 42. For a discussion of the first-sale doctrine under this Directive, see Lothar Determann & Aaron Xavier Fellmeth, \textit{Don't Judge a Sale by Its License: Software Transfers Under the First Sale Doctrine in the United States and the European Community}, 36 U.S.F. L. REV. 1, 71-75 (2001).}

Third, this interpretation results in a rule that is administrable. It is ordinarily straightforward to determine whether a transaction is a sale or a lease. By contrast, it is not at all clear how one would devise an administrable standard for determining whether a sale-with-restrictions should be deemed the equivalent of an unrestricted sale, or the equivalent of a lease, for purposes of the first-sale doctrine. How would we classify, for example, a perpetual transfer of a software copy with the restriction that it may not be used on Thursdays, may not be used for commercial purposes, or may only be used on one specified computer? The possible variations are infinite.

In some contexts, determining whether a transaction involving goods is a sale or a lease \textit{does} present substantial difficulties, but the courts are accustomed to dealing with such questions. The sale-versus-lease issue is frequently litigated under the Uniform Commercial Code ("UCC"). For various reasons, one or both parties may want to characterize as a lease what is really a sale, to characterize as a sale what is really a lease, or even to characterize a transaction one way for some purposes and the other way for other purposes.\footnote{See Corinne Cooper, \textit{Identifying a Personal Property Lease Under the UCC}, 49 OHIO ST. L.J. 195, 197-98 (1988) (referencing several laws that treat transactions differently depending on whether they involve a sale or a lease).} Under the UCC, the issue turns on the factors set out in section 1-203.\footnote{The provision is rather complex. It provides, in part: (b) A transaction in the form of a lease creates a security interest if the consideration that the lessee is to pay the lessor for the right to possession and use of the goods is an obligation for the term of the lease and is not subject to termination by the lessee, and: (1) the original term of the lease is equal to or greater than the remaining economic life of the goods; (2) the lessee is bound to renew the lease for the remaining economic life of the goods or is bound to become the owner of the goods; (3) the lessee has an option to renew the lease for the remaining}
area that makes them difficult to classify, in most cases it is clear whether a transaction is a sale or a lease. The key criterion is this: "First, in an unconditional sale, the buyer gets to keep the goods. ... Second, in a lease, the lessor gets the goods back."69 In addition, return of the goods must be required at a point in time before the end of their useful life.70 The courts have relied on this distinction, holding that if the goods must be returned, the transaction is not a sale.71 Conversely, if the recipient is entitled to possession of the goods in perpetuity, upon payment of some nominal consideration, economic life of the goods for no additional consideration or for nominal additional consideration upon compliance with the lease agreement; or (4) the lessee has an option to become the owner of the goods for no additional consideration or for nominal additional consideration upon compliance with the lease agreement.

U.C.C. § 1-203(b) (2004). Note that before the 2001 revision of Article 1, this provision, in substantively unaltered form, was located in section 1-201(37).

69. Cooper, supra note 67, at 203; see also JAMES J. WHITE & ROBERT S. SUMMERS, UNIFORM COMMERCIAL CODE 720 n.11 (4th ed. 1995) ("A lease involves payment for the temporary possession, use and enjoyment of goods, with the expectation that the goods will be returned to the owner with some expected residual interest of value remaining at the end of the lease term.").

This criterion is reflected in U.C.C. § 1-203(b)(4), quoted supra in note 68. It also finds expression in U.C.C. § 2A-103(1)(p), which defines "lease" as "a transfer of the right to possession and use of goods for a period." (emphasis added).

70. See In re Marhoefer Packing Co., 674 F.2d 1139, 1145 (7th Cir. 1982) ("An essential characteristic of a true lease is that there be something of value to return to the lessor after the term. Where the term of the lease is substantially equal to the life of the leased property such that there will be nothing of value to return at the end of the lease, the transaction is in essence a sale.") (citation omitted); In re QDS Components, Inc., 292 B.R. 313, 322 (Bankr. S.D. Ohio 2002) ("The hallmark of a lease is that it grants the lessee the right to use property for a period less than its economic life with the concomitant obligation to return the property to the lessor while it retains some substantial economic life.").

71. See George F. Mueller & Sons, Inc. v. N. Ill. Gas Co., 299 N.E.2d 601, 604 (Ill. App. Ct. 1973) (finding that there was no sale of vending machines where "the defendant has an obligation to return the machines"); Garfield v. Furniture Fair-Hanover, 274 A.2d 325, 326 (N.J. Super. Ct. Law Div. 1971) (finding that a furniture store's temporary provision of a bedroom set was a bailment, not a sale: "in a bailment situation the property in question is to be restored to the owner whereas in a sale transaction there exists no obligation on the buyer to return the specific article"). The same is true under pre-UCC common law. See Bretz v. Diehle, 11 A. 893, 894-95 (Pa. 1888) ("The fundamental distinction between a bailment and a sale is that in the former the subject of the contract, although in an altered form is to be restored to the owner, while in the latter, there is no obligation to return the specific article...."); Carlisle v. Wallace, 12 Ind. 252 (Ind. 1859) (holding that where wheat was placed in the hands of a miller, under an agreement permitting the miller to mix it with his own wheat, grind it, and sell it, and requiring the miller to return either an equivalent quantity of wheat or flour, or its current price, the transaction was a sale, not a bailment).
the transaction is a sale, and the recipient is the owner.\textsuperscript{72}

In sum, a person is the "owner" of a material object containing a copyrighted work, for purposes of the first-sale doctrine, if she acquired it through an outright sale or its non-commercial equivalent,\textsuperscript{73} or through a sale-with-restrictions, but not if she acquired it through a lease or other bailment.

\textbf{B. Efforts to circumvent the first-sale doctrine: three strategies of software publishers}

A software publisher that wants to control disposition of its products after they reach the hands of end users, thereby controlling the secondary market, can accomplish part of this goal by invoking its exclusive right to distribute its works to the public. That right allows it to prevent anyone in possession of a copy of its software—even assuming the possessor is the lawful "owner" of that copy—from renting, leasing, or lending that copy to anyone else for commercial advantage. But the copyright laws do not grant the software publisher any authority to prevent the owner of a lawfully made software copy from selling it or giving it to someone else, or from lending it to someone else if not for commercial advantage; and these activities constitute the core of the secondary market.

A software publisher could eliminate much of this remaining segment of the secondary market, using the copyright laws, if it were able to prevent an acquirer of its software from gaining ownership of the material object on which the software is distributed. If this could be accomplished, only one narrow aspect of the secondary market would remain outside the software publisher's control: the acquirer's gift, sale, or loan of the software copy in a manner deemed not to be "to the public" for purposes of the public distribution right.

Accomplishing this objective would bring an additional benefit to the software publisher, by rendering section 117(a) of the Copyright Act unavailable. Section 117(a) entitles the "owner of a copy of a computer program" to take two actions with respect to that copy that would otherwise constitute infringement.\textsuperscript{74} First, the owner may load

\textsuperscript{72} See \textit{In re PSINet, Inc.}, 271 B.R. 1, 45 (Bankr. S.D.N.Y. 2001) (holding that where equipment could be purchased at end of "lease" term for one dollar, transaction was a sale, not a lease); C.F. Garcia Enters., Inc. v. Enter. Ford Tractor, Inc., 480 S.E.2d 497, 499 (Va. 1997) (same).

\textsuperscript{73} Qualifying non-sale transactions would include donations, bequests, and transfers resulting from operation of law.

\textsuperscript{74} Section 117 was amended in 1980 to add the language implementing this. \textit{Act of Dec. 12, 1980, Pub. L. No. 96-517, 94 Stat. 3015, 3028.} The amendment resolved an issue concerning the copyrightability of computer programs that had lingered since before passage of the 1976 Act. In 1974, Congress had established the National Commission on New Technological Uses of Copyrighted Works ("CONTU"), with a
the software from that copy onto her computer, or may make and load an adaptation of that software, as required to make use of it. Second, the owner may make a backup copy of it. But these privileges are not available to a person who is not the "owner of a copy" of the program. Under ordinary circumstances, a software publisher will have no objection to an end user's loading the software onto her computer in order to use it, or making a backup copy of it. However, if a dispute should arise, the additional control that a

mandate to address how the pending rewrite of the Copyright Act should address new technologies, including computers. In its 1978 report, CONTU recommended an amendment to section 117, as well as the addition of a definition of "computer program" to section 101. Congress adopted those recommendations in the 1980 amendment, with one change. The language that CONTU proposed would have granted the rights described in text to the "rightful possessor" of a copy of the software; Congress, without explanation, changed this so that the right attaches to the "owner" of a copy. See Final Report of the National Commission on New Technological Uses of Copyrighted Works 12 (1978). For speculation on why Congress made this change, see Jule L. Sigall, Comment, Copyright Infringement Was Never This Easy: RAM Copies and Their Impact on the Scope of Copyright Protection for Computer Programs, 45 Cath. U. L. Rev. 181, 188 n.41 (1995).

75. 17 U.S.C. § 117(a)(1) (2000). Courts have uniformly held that the loading of a computer program into the random access memory of a computer, which is a necessary step in the ordinary use of the program, constitutes the making of a copy that, if unauthorized, infringes the copyright owner's exclusive right to reproduce the program. See DSC Comms. Corp. v. DGI Techs., Inc., 81 F.3d 597, 600 (5th Cir. 1996) (noting the defendant does not dispute that downloading operating system software into the RAM of a microprocessor card constitutes copying); Triad Sys. Corp. v. Southeastern Express Co., 64 F.3d 1330, 1335 (9th Cir. 1995) (stating "[i]t is clear" that turning on a computer, thereby loading software into RAM, is "copying"); MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511, 519 (9th Cir. 1993) (treating any copy made in RAM as a copy under the Copyright Act); ISC-Bunker Ramo Corp. v. Altech, Inc., 765 F. Supp. 1310, 1332 (N.D. Ill. 1990) ("Loading a computer's memory requires 'copying' of the program from a disk into memory, and that copy is a direct infringement of the copyright.").

This conclusion has been subjected to a good deal of criticism. See, e.g., Jessica Litman, The Exclusive Right to Read, 13 Cardozo Arts & Ent. L.J. 29, 41-42 (1994) (arguing that "the act of reading a work into a computer's random access memory is too transitory to create a reproduction within the meaning of" the law); Joseph P. Liu, Owning Digital Copies: Copyright Law and the Incidents of Copy Ownership, 42 WM. & Mary L. Rev. 1245, 1258-60 (2001) (discussing the policy reasons why copyright law should not focus so much on RAM copies).


77. It would be anomalous for a software publisher to supply its product to its customers under terms that render them infringers as soon as they install the product onto a computer in order to use it. Therefore, software licenses—including those in which the software publisher purports to retain ownership of the copy—typically grant the end user the rights she would have under section 117(a), to use the software and make a backup copy of it, if the acquirer was in fact the "owner" of the copy acquired. For example, the license agreement in MAI Systems Corp., 991 F.2d at 517 n.3, includes the statement: "Customer may use the Software (one version with maximum of two copies permitted—a working and a backup copy)."
A software publisher would have if section 117(a) were not available—as it would not be if the end user were not an “owner” of the copy—could come in handy. 78

Software publishers have employed several strategies aimed at preventing an acquirer of their software from becoming the owner of the material object on which it is distributed, and have achieved a fair measure of success in the courts. First, and most commonly, software publishers assert, in the license agreements accompanying their products, that the software is “licensed” and not sold, or that the publisher “retains title” to copies of the software that it provides to the user. Second, software publishers limit contractually the authority of their distributors to distribute the software. As I argue below, in general neither of these methods is effective in preventing the acquirer of a software copy from obtaining ownership of the copy.

In addition, copyright owners have sometimes attempted to control the disposition of a copy containing their copyrighted works by attaching use restrictions to the copy itself, so as to impose non-contractual constraints on any possessor of the object. As I show below, such running servitudes are generally disfavored at common law, and are flatly inconsistent with the Copyright Act.

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78. Before 1998, rendering section 117(a) inapplicable by retaining title to the copy resulted in an additional benefit to certain software publishers. Some publishers not only produce and distribute software, but also build the computers the software is designed to run on, and perform maintenance on the computers. Other companies—competitors—also offer to perform such maintenance. To service a computer, however, one needs to turn it on; and when the computer is turned on, the system software is automatically loaded into the computer's RAM, thus making a copy of it. In several cases, hardware/software providers successfully sued third-party providers of maintenance services, arguing that by turning on the computer the maintenance company infringed the hardware/software provider's exclusive right to make a copy of the software. 17 U.S.C. § 106(1); see Triad Sys. Corp., 64 F.3d at 1335; MAI Sys. Corp., 991 F.2d at 519; Advanced Computer Servs., Inc. v. MAI Sys. Corp., 845 F. Supp. 356, 363 (E.D. Va. 1994).

Congress overturned the result reached in these cases by enacting the Computer Maintenance Competition Assurance Act, Title III of the Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860, 2887 (1998) (codified at 17 U.S.C. § 117(c)). The amendment allows the owner of a computer to authorize a repair person to turn on the computer, causing a copy to be made in RAM, “for purposes only of maintenance or repair of that machine.” Id. However, the amendment does not affect the courts' determination that loading a computer program into a computer's RAM constitutes the making of a “copy” that is infringing if unauthorized, and that one who possesses but does not own the software copy is not entitled to the rights that section 117 grants.
1. Declaring that users are licensees, not owners, of the software

a. The strategy

It is very common for a license agreement accompanying the transfer of a software product to state that the software is "licensed" to the end user, who is invariably referred to as the "licensee" and never as the "purchaser" of the software. Based upon that

79. Software publishers usually refer to the statement of terms and conditions that accompanies virtually all software distributed to consumers in mass-market transactions as a "License Agreement" or "End User License Agreement." This term is in large measure a misnomer.

Software license agreements typically include a variety of terms, which may be divided into three categories. The first category consists of terms that permit uses of the software that would otherwise infringe the copyright. For example, the license might permit the user to install one copy on her home computer, and another simultaneously on her office computer. The license might also permit the user to make and use adaptations of the software, beyond what is necessary for utilization of the software. In the absence of license terms permitting these uses, they would infringe the copyright owner's exclusive rights of reproduction and adaptation. See 17 U.S.C. § 106(1), (2) (2000).

The second category of terms consists of those which purport to narrow the permitted uses of the software, using contract to expand the rights of the copyright owner beyond those granted by the copyright laws. These include provisions prohibiting reverse engineering, prohibiting commercial use, limiting use of the software to employees of the licensee, and forbidding processing of data for third parties. See Mark A. Lemley, Beyond Preemption: The Law and Policy of Intellectual Property Licensing, 87 CAL. L. REV. 111, 128-32 (1999).

The third category consists of terms relating to ancillary matters, such as mandatory arbitration, choice of forum, or disclaimer of warranties.

Only terms in the first category are in fact "license" terms—i.e., provisions that permit uses of a copyrighted work that would otherwise infringe the copyright. Terms in the second category do not permit, but rather restrict: they are contract terms having nothing to do with licensing. Terms in the third category do not relate particularly to software, but are found in contracts governing all sorts of commercial transactions. Characterizing all of these provisions as "license" terms benefits the software publisher by making it appear that the publisher is simply protecting its intellectual property rights, when in fact the publisher is attempting to supplement via contract the rights that the Copyright Act grants.

Deferring to tradition, I will perpetuate the misnomer by referring to the terms accompanying a software transaction as the "license agreement," rather than employing a more cumbersome, but more accurate, label such as "contract accompanying a software transaction, including license terms."

80. For example, the license agreement accompanying the TurboTax software installed on my computer states: "Intuit grants to you and Members of Your Family Household . . . a personal, limited, non-exclusive, non-transferable license to install and use the Software . . . ." Similarly, a treatise writer suggests the following form language: "In accordance with the terms and conditions of this License Agreement, Licensor Corporation (Licensor) grants Licensee the non-exclusive license to use the accompanying software . . . ." RICHARD RAYSMAN, ET AL., INTELLECTUAL PROPERTY
characterization of the transaction, the software publisher argues that since the acquirer is only a "licensee" of the software, and not its "owner," the acquirer is not entitled to the rights granted by sections 109(a) and 117(a).81 Another form of words that software publishers use in an effort to prevent the acquirer from becoming the "owner" of her copy is a declaration that the software publisher "retains title" to the software or to the copy.82

Representatives of the software industry have been candid in acknowledging that the main purpose of characterizing transactions involving their products as licenses rather than sales is to defeat the exhaustion of their distribution right that would otherwise result through application of the first-sale doctrine. In continuing-education materials written in 1993, two in-house attorneys for the Microsoft Corporation explain:

Software publishers offer the following reasons for licensing rather than selling copies of software:

Negating the "Doctrine of First Sale." Under the Copyright Act, once a copy of a copyrighted work has been sold, the copyright holder's rights in that particular copy are exhausted, and the copy may be freely resold, leased or loaned. See 17 U.S.C. [§] 109. If title to the particular copy of the program is not transferred to the user, the user may only transfer the software to others as described by the terms of the license agreement.83

Several courts have accepted the software publishers' argument

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82. This approach may be implemented through licensing language like the following:

Ownership of Copies: The original and any copies of the Licensed Programs, in whole or in part, which are made by ABC or the Licensee or otherwise, remain at all times the sole and exclusive property of ABC.

2 ESTHER C. RODITTI, COMPUTER CONTRACTS, FM 8.08-1, at 8-70 (2002).

83. William H. Neukom & Robert W. Gomulkiewicz, Licensing Rights to Computer Software, 354 PLI/Pat 775, 778 (1993); see also Step-Saver Data Sys., Inc. v. Wyse Tech., 939 F.2d 91, 96 n.7 (3d Cir. 1991) ("When these form licenses were first developed for software, it was, in large part, to avoid the federal copyright law first sale doctrine."); 2 RODITTI, supra note 82, § 8.10[1], at 8-268 ("A principal purpose of transferring software products to consumers via a shrinkwrap license rather than via a sale transaction is to negate the copyright 'doctrine of first sale' . . . ."); Pamela Samuelson, Modifying Copyrighted Software: Adjusting Copyright Doctrine to Accommodate a Technology, 28 JURIMETRICS J. 179, 189 (1988) (licensing of software "seems to have been adopted solely to strip consumers of rights they would otherwise have under copyright law").
that they do not sell, but only license, their software, and that this disposition of the merchandise makes unavailable the rights granted by sections 109(a) and 117(a) of the Copyright Act. Typical of such cases is the statement: "[s]ince MAI licensed its software, the Peak customers do not qualify as 'owners' of the software and are not eligible for protection under § 117."84 The Copyright Office too has adopted this view of the matter. In a congressionally mandated report concerning the effects of the Digital Millennium Copyright Act's anti-circumvention provisions on sections 109 and 117 of the Copyright Act, the Copyright Office observes that "[l]ibraries are not able to use CD-ROMs donated to them because the donors are not owners of the CD-ROMs, only licensees, and thus lack the legal

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84. MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511, 518 n.5 (9th Cir. 1993).

Other courts accepting the argument that a software publisher may prevent sections 109(a) and 117(a) from applying if it licenses, rather than sells, its products, include: DSC Communications Corp. v. Pulse Communications, Inc., 170 F.3d 1354, 1361-1362 (Fed. Cir. 1999) (license agreement stating that "[a]ll rights, title and interest in the Software are and shall remain with seller, subject, however, to a license to Buyer to use the Software" held to establish that the acquirer is not the owner of its copies of the software); Triad Sys. Corp. v. Southeastern Express Co., 64 F.3d 1330, 1333 (9th Cir. 1999) (since software publisher "began licensing rather than selling its software," licensees have no rights under section 117); Adobe Sys. Inc. v. Stargate Software Inc., 216 F. Supp. 2d 1051, 1060 (N.D. Cal. 2002) (agreement between software publisher and reseller is interpreted as a license, so distribution of software is not a sale for purposes of first-sale doctrine); Adobe Sys. Inc. v. One Stop Micro, Inc., 84 F. Supp. 2d 1086, 1092 (N.D. Cal. 2000) (same); Microsoft Corp. v. Software Wholesale Club, Inc., 129 F. Supp. 2d 995, 1002 (S.D. Tex. 2000) ("If the copyright owner licenses, rather than sells, the copyrighted work, the first-sale doctrine may not apply."); Microsoft Corp. v. CMOS Techs., Inc., 872 F. Supp. 1329, 1334-35 (D.N.J. 1994) (defendant that purchased Microsoft software on a stand-alone basis from a dealer that Microsoft authorized only to sell software bundled with computer systems, and that resold the software, was engaged in distribution of "counterfeit" software and infringed Microsoft's distribution right); Microsoft Corp. v. Harmony Computers & Elecs., Inc., 846 F. Supp. 208, 213 (E.D.N.Y. 1994) ("Plaintiff's counsel declares that Microsoft only licenses and does not sell its Products . . . . Entering a license agreement is not a 'sale' for purposes of the first sale doctrine."); ISC-Bunker Ramo Corp. v. Altech, Inc., 765 F. Supp. 1310, 1314 (N.D. Ill. 1990) (ISC did not sell copies of its software to its customers; it only licensed them, making the 'first sale' doctrine inapplicable.).


Treatise writers have made similar statements. See 2 RODITTI, supra note 82, § 8.01[2], at 8-10 to 8-13 (venturing to explain "why software is licensed and not sold like other copyright protected products, such as books or CDs."); id. § 8.05[1], at 8-38.3 ("[A] copyright owner does not forfeit his right of distribution by entering into a licensing agreement. Licensing thus avoids the first sale doctrine of the Copyright Act."); RAYMOND T. NIMMER, INFORMATION LAW § 11:70 (2002) ("licensees are ordinarily not owners of copies").
authority to transfer the copy of the work they possess.”

Courts, commentators, and the Copyright Office have thus accepted the software publishers’ argument that since they only license their software, and do not sell it, they retain ownership of the software, with the consequence that sections 109(a) and 117(a) of the Copyright Act, which by their own terms confer rights only on the “owner” of software, are unavailable to the acquirers of their software. Therefore, the argument continues, an end user who sells or gives away licensed software to the public, without authorization from the copyright owner, infringes the copyright owner’s distribution right; and an end user who, without such authorization, loads the software onto her computer or makes a backup copy infringes the copyright owner’s reproduction right.

b. Critique of the strategy

Acceptance of this argument depends upon a curiously persistent confusion between a computer program and the material object on which it is distributed. The two are quite different. A work of authorship, such as a computer program, is incorporeal. In its pristine state, you can’t touch it, see it, hear it, smell it, or taste it. It is like a Platonic Form. On the other hand, the material object in which it is embodied is just that: a material object.

Thus, a literary work, consisting of the words of a book, may be embodied in a material object consisting of ink on paper; a musical work, consisting of the notes of a song, may be embodied in sheet music, or in a recording of a rendition of the song; a pictorial work, consisting of color, line, and shape, may be embodied in paint on canvas. The code of a computer program, consisting as it does of text, is treated under the Copyright Act as a literary work, and may be embodied on a floppy diskette, CD-ROM, hard drive, or some other storage medium.

Although both (1) the copyright in the work of authorship and (2) the material object in which it is fixed are forms of property that are capable of ownership, ownership of one is independent of ownership

85. U.S. COPYRIGHT OFFICE, DMCA SECTION 104 REPORT 105 (Aug. 2001) [hereinafter SECTION 104 REPORT]. The same report makes a similar observation concerning the availability of section 117: “[S]ince the overwhelming majority of computer programs sold in the United States are sold pursuant to a license, and section 117 applies only to ‘owners,’ the terms of the license agreement generally determine whether a user has the right to make an archival copy. In cases where the license does not permit the creation of an archival copy, even absent technological protection measures, the copying is prohibited.” Id. at 77 (footnote omitted).

86. See 17 U.S.C. § 101 (2000) (defining “literary works” to include works expressed in “numerical symbols or indicia”).
of the other.87 Thus, one becomes the owner of a copyright either by being the author of the work to which it pertains,88 or through transfer of copyright ownership.89 One becomes the owner of a copy through the same actions that result in ownership of any other moveable good, typically by purchasing it or otherwise acquiring ownership from the prior owner. But the transfer of ownership of a copy of a work does not imply any corresponding transfer of the copyright to that work;90 an artist who sells a painting parts with the canvas but retains the copyright, absent a signed writing assigning the copyright.91 Likewise, transfer of ownership of the copyright to a work does not affect ownership of any particular copy embodying that work: an author who assigns the copyright in a literary work to a publisher does not thereby lose ownership of her manuscript embodying the work.92

Most crucially for present purposes, the fact that one is only the licensee, and not the owner, of the copyright is not of any relevance to the question whether one owns the associated copy. The two ownership interests are entirely independent. It is quite possible, and quite common, for a person to own either the copyright in a work of authorship (in whole or in part), or the material object in which it is fixed, but not both.

Consider the books on your bookshelf. You do not own the copyright to any of the literary works that are embodied in those books (unless, perhaps, you are the author of the work). You may or may not be the owner of any one of the material objects on your shelf: you own the ones that you bought or received as a gift; you do not own the ones that you borrowed from the library. But your ownership

87. Id. § 202 ("Ownership of a copyright... is distinct from ownership of any material object in which the work is embodied.").
88. Id. § 201(a) ("Copyright in a work protected under this title vests initially in the author or authors of the work.").
89. Id. § 201(d)(1) ("The ownership of a copyright may be transferred in whole or in part by any means of conveyance....").
90. Id. § 202 ("Transfer of ownership of any material object... does not of itself convey any rights in the copyrighted work embodied in the object...."); Applied Info. Mgmt., Inc. v. Icart, 976 F. Supp. 149, 153 (E.D.N.Y. 1997) ("As a result of Section 202, a court interpreting a licensing agreement must determine ownership of the copy separately from ownership of the copyright."); cf. Forward v. Thorogood, 985 F.2d 604, 605 (1st Cir. 1993) (under state-law copyright, before applicability of the 1976 Act, transfer of a material object creates a presumption that transfer of copyright in the work embodied therein was intended, but the presumption may be defeated by evidence to the contrary).
91. 17 U.S.C. § 204(a) ("A transfer of copyright ownership... is not valid unless an instrument of conveyance... is in writing and signed by the owner of the rights conveyed....").
92. Id. § 202 ("[T]ransfer of ownership of a copyright... [does not] convey property rights in any material object.").
of any particular book does not depend on whether you own the copyright in the corresponding literary work. That is equally true whether you own the copyright or not: if you are the author of a literary work, and own the copyright to it, that does not make you the owner of the stack of books embodying that work on display at the bookstore; if you are not the copyright owner of the literary work, you may nevertheless be the owner of a particular book embodying it.

The same principles that apply to books apply to music CDs, art posters, movie DVDs, and other information goods in tangible form—including software. Consumers typically own many such material objects, but own few, if any, copyrights to the works embodied in those objects.

Recall that what triggers applicability of the first-sale doctrine of section 109(a), and the prerogatives respecting software under section 117(a), is ownership of the copy, not ownership of the copyright. It follows that a statement in a software license agreement that the publisher grants the user a license to use the software, but does not transfer ownership of the copyright, does not

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93. By “information good” I mean any commodity the primary value of which consists of information. Information includes, among many other possibilities, “baseball scores, books, databases, magazines, movies, music, stock quotes, and Web pages.” CARL SHAPIRO & HAL R. VARIAN, INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY 3 (1999). An information good may be embodied in a material object, such as a book, CD-ROM, or DVD, or may consist of access to intangible information, such as electronic text on Westlaw or LEXIS, or streaming audio that is played using RealPlayer software. An information good may be in an analog format, such as a book, music on a phonograph record or cassette tape, or a movie on videotape, or a digital one, such as electronic text, music on a CD, or a movie on a DVD.

94. Numerous courts have failed to appreciate the distinction between the copyrighted work and the material object on which it is distributed, erroneously adopting the software publisher's argument that if the copyrighted work is licensed, the material object has not been sold. See cases cited supra note 84. Courts that have explicitly declared their misunderstanding of this crucial distinction include MAI Systems Corp. v. Peak Computer Inc., Civ. A. No. CV 92-1654-R, 1992 WL 159803, at *13 (C.D. Cal. 1992) (“It should also be noted, in the context of § 117, that only the copyright owner qualifies for protection under § 117 and not any licensee.”), aff'd in part, rev'd in part, dismissed in part, 991 F.2d 511 (9th Cir. 1993); and Advanced Computer Services of Michigan, Inc. v. MAI Systems Corp., 845 F. Supp. 356, 367 (E.D. Va. 1994) (stating that section 117 provides rights only to “the owner . . . of a computer program”) (emphasis added by the court). See also Vault Corp. v. Quaid Software Ltd., 847 F.2d 255, 261 (5th Cir. 1988) (stating that section 117 applies to the “owner of a program”); CMAX/Cleveland, Inc. v. UCR, Inc., 804 F. Supp. 337, 356 (M.D. Ga. 1992) (holding defendants were not “owners” under section 117 because “[d]efendants' possession of [the source and object] codes did not make them the 'owner' of them.”). Even further from the mark is the reasoning of Krause v. Titleserv, Inc., 289 F. Supp. 2d 316, 318 (E.D.N.Y. 2003), according to which a business owned a copy of a computer program by virtue of the fact that it paid a consultant lots of money to produce it.
determine the applicability of either of those provisions.95

Some license agreements, however, purport to license not only use of the copyrighted work, but also possession of the material object on which it is distributed. For example, Vault Corp. v. Quaid Software Ltd.96 involves a license agreement that declares: "This copy of the PROLOK Software Protection System and this PROLOK Software Protection Diskette (the 'Licensed Software') are licensed to you, the end-user, for your own internal use."97 This language explicitly says that both the computer program (i.e., the copyrighted work), and the diskette on which it is distributed (i.e., the material object that embodies the copyrighted work), are licensed, not sold, to the acquirer.98

Other license agreements are ambiguous: it is unclear whether the publisher purports to "license" only the computer program or also the material object on which it is distributed.99 Consider the following provisions of a Microsoft license agreement:

95. Courts that have stated this principle correctly include Novell, Inc. v. CPU Distribution, Inc., Civ. A. No. H-97-2326, 2000 U.S. Dist. LEXIS 9975, at *18-19 (S.D. Tex. 2000) ("The Court...concludes that the transfer to the OEM of tangible copies of Novell software under the OEM Agreement is a sale of the particular copies, but not of Novell's intellectual property rights in the computer program itself, which is protected by Novell's copyright."); and SoftMan Products Co. v. Adobe Systems Inc., 171 F. Supp. 2d 1075, 1084-85 (C.D. Cal. 2001) ("Adobe frames the issue as a dispute about the ownership of intellectual property. In fact, it is a dispute about the ownership of individual pieces of Adobe software.... In this case, no claim is made that transfer of the copy involves transfer of the ownership of the intellectual property within.... What is at stake here is the right of the purchaser to dispose of that purchaser's particular copy of the software.... The Court finds that the circumstances surrounding the transaction strongly suggests that the transaction is in fact a sale rather than a license.").

96. Vault Corp., 847 F.2d at 255.


98. To the same effect is the language of a treatise-writer's form mass-market software license agreement. The agreement defines "THE PROGRAM" as "THE PROGRAM DISKETTES, THE COMPUTER SOFTWARE THEREIN, AND THE ACCOMPANYING DOCUMENTATION," and then declares that "THE PROGRAM IS COPYRIGHTED AND LICENSED (NOT SOLD)." CLARENCE H. RIDLEY, PETER C. QUITTMEYER & JOHN MATUSZESKI, COMPUTER SOFTWARE AGREEMENTS Fm. 10-2, at 10-16 (1993). See also Samuelson, supra note 83, at 181 n.7 (mass-market software licenses "typically claim to retain for software developers not simply ownership of the intellectual property rights in the software, but also ownership of the personal property rights in it as well.").

99. See Applied Info. Mgmt., Inc. v. Icart, 976 F. Supp. 149, 153 (E.D.N.Y. 1997) ("The simple conclusion that section 117 applies only to the owner of a copy of a computer program...has proven difficult to apply because software companies frequently license their programs and the licenses do not always distinguish between the copyright and the copy.").
1. GRANT OF LICENSE. This Microsoft License Agreement ("License") permits you to use one copy of the specified version of the Microsoft software product identified above ("SOFTWARE") on any single computer, provided the SOFTWARE is in use on only one computer at any time. . . .

2. COPYRIGHT. The SOFTWARE is owned by Microsoft or its suppliers and is protected by United States copyright laws and international treaty provisions. Therefore, you must treat the SOFTWARE like any other copyrighted material (e.g., a book or musical recording) except that you may either (a) make one copy of the SOFTWARE solely for backup or archival purposes, or (b) transfer the SOFTWARE to a single hard disk provided you keep the original solely for backup or archival purposes.

The language of this license agreement elides the critical distinction between ownership of the copyright in a protected work and ownership of the material object containing that work. Paragraph 2 of the license agreement declares that "[t]he SOFTWARE is owned by Microsoft." But what is "[t]he SOFTWARE"? Is it the copyrighted work of authorship, a computer program? Or is it the floppy diskette in which the copyrighted work is fixed? "SOFTWARE" is a defined term in this license agreement, but the definition, in Paragraph 1, is itself ambiguous. Does "SOFTWARE" mean a "copy of the specified version of the Microsoft software product identified above," in which case Paragraph 2 declares that Microsoft owns the material object? Or does "SOFTWARE" mean "the specified version of the Microsoft software product identified above," in which case it designates the copyrighted work, and the declaration in Paragraph 2 means that Microsoft is not transferring ownership of the copyright? The clause in Paragraph 2—"Therefore, you must treat the SOFTWARE like any other copyrighted material (e.g., a book or musical recording) . . ."—may suggest the latter. It says that because Microsoft owns the "SOFTWARE," the user has only limited rights to make use of it; that is a limitation on use that flows from Microsoft's ownership of the copyrighted work, not from its ownership of the diskettes on which it is distributed. Furthermore, saying that the user must treat the "SOFTWARE" like a book or musical recording seems to imply that Microsoft is not claiming ownership of the floppy disk, but only of the copyright, since it is clear that the purchaser of a book or a music CD owns those material objects.

Whether ambiguous or not, a declaration in a software license agreement purporting to "license" not only use of the computer program, but also possession of the material object on which it is

100. Neukom & Gomulkiewicz, supra note 83, at 787.
distributed, cannot, on a proper construction of the term "owner" in sections 109(a) and 117(a), prevent the acquirer of the software copy from being entitled to the benefits that those two provisions confer.

To see this, consider what it means to say that one "licenses" a material object. This is nonstandard usage of the term "license." In its standard usage, a license is a grant of permission. Thus, a license in connection with a copyrighted work constitutes permission to use the work in a manner that would otherwise infringe the copyright. Likewise, a license in connection with a patent permits the use of an invention in a way that would otherwise infringe the patent. A marriage license permits one (two, actually) to marry, as a driver's license permits one to drive. In the context of real property, a license is a permission to enter upon land, which would otherwise be trespass.

The current Copyright Act does not define "license," but uses the term in several contexts to mean permission to use a copyrighted work; the Act never uses the term as a property relation applicable to a copy or phonorecord. Under prior copyright statutes, the term "consent" was used in contexts where "license" is currently used, and likewise denoted permission to use a copyrighted work.

101. See 51 AM. JUR. 2D Licenses and Permits § 1 (2000) ("A license is in the nature of a privilege or special privilege, entitling the licensee to do something that he would not be entitled to do without the license."). Similarly: (1) a license is "[a] revocable permission to commit some act that would otherwise be unlawful," BLACK'S LAW DICTIONARY 931 (7th ed. 1999) (definition of "license"); (2) a license is "[a] formal, usually a printed or written permission from a constituted authority to do something, e.g. to marry, to print or publish a book, to preach, to carry on some trade, etc."); 6 OXFORD ENGLISH DICTIONARY 244 (1933) (definition of "license"); (3) "A license is permission granted by competent authority to do some act which would be illegal were it done without such permission," HORACE G. BALL, THE LAW OF COPYRIGHT AND LITERARY PROPERTY 530 (1944).

102. See JESSE DUKEMINIER & JAMES E. KRIER, PROPERTY 790 (4th ed. 1998). The common law distinguishes between two types of permission in connection with real property. A "license" is a permission that may be withdrawn at any time. An "easement" is a permission that is not revocable at the will of the grantor. See ROGER A. CUNNINGHAM, ET AL., THE LAW OF PROPERTY 437 (1st ed. 1984).

103. See, e.g., 17 U.S.C. § 101 (2000) (definition of "performing rights society") ("A 'performing rights society' is an association, corporation, or other entity that licenses the public performance of nondramatic musical works..."); id. § 112(e)(1) ("statutory license"); id. § 115(a)(1) ("compulsory license" to make a sound recording of a musical work); id. § 203 (a "license" is subject to termination).

104. The Statute of Anne imposes liability on one who reprints a book "without the Consent of the Proprietor or Proprietors thereof first had and obtained in Writing, signed in the Presence of two or more credible Witnesses." Statute of Anne, 8 Ann., c. 19, § 1 (1710) (Eng.). The term "consent" was used interchangeably with the term "license." Thus, in Power v. Walker, Lord Ellenborough stated of the Statute of Anne: "[T]he statute having required that the consent of the proprietor, in order to authorize the printing or reprinting of any book by any other person, shall be in writing, the
Thus, "license," when used as a verb, means "permit" or "authorize." When used as a noun, it means "permission" or "authorization." It makes perfect sense to say that a copyright owner "licenses" use of a copyrighted work: this means that she permits or authorizes the specified use of the work. What the licensee receives is well described as a license, since it is a permission or authorization to engage in activities that would otherwise infringe the rights of the copyright owner.

But what can it mean to say that one "licenses" (or licenses use of) a material object, such as a CD-ROM or floppy diskette? Based on the foregoing, this is to say that one "permits" or "authorizes" use of it. Such a statement is ambiguous. The law recognizes several types of transactions in which one person "permits" another person to make use of his property. That characterization is equally consistent, for example, with a sale, lease, loan, consignment, pledge, or other bailment of the object. On the other hand, it may be that the "license" of a material object defines a new property relationship—a new "bundle of sticks," to use the conventional metaphor—that fits within none of these categories.

Which of these property relations the term "license" denotes, when applied to a material object, is of crucial importance in conclusion from it seemed almost irresistible that the assignment must also be in writing; for if the license, which is the lesser thing, must be in writing, a fortiori the assignment, which is the greater thing, must also be. 3 Maule & S. 9 (1814), quoted in Eaton S. Drone, A Treatise on the Law of Property in Intellectual Productions in Great Britain and the United States 303 (1879).

The 1790 Copyright Act has similar language: it is a violation to exercise rights belonging to the copyright holder "without the consent of the author or proprietor thereof, first had and obtained in writing, signed in the presence of two or more credible witnesses." Act of May 31, 1790, ch. 15, § 2, 1 Stat. 124, 124. So does the 1831 Act. Act of Feb. 3, 1831, ch. 16, §§ 6, 7, 4 Stat. 436, 437-38. The 1909 Act uses the term "license." Act of Mar. 4, 1909, ch. 320, §§ 1(e), 25(e), 35 Stat. 1075, 1076, 1082.

105. It is common in the copyright context to say that one licenses the work itself, rather than licensing use of the work. The former is simply an ellipsis of the latter. Thus, for example, movie studios historically engaged in the practice of "licensing" their films for exhibition in movie theaters, under an arrangement whereby the studios did not sell the movie prints, but provided them to a theater for a period of time after which the print had to be returned to the studio. Jodi Zechowy, Comment, Cheaper by the Dozen: Unauthorized Rental of Motion Picture Videocassettes and Videodiscs, 34 Fed. Comm. L.J. 259, 262-63 (1982). In this context, to say that a studio "licensed" a film is merely to say in shorthand form that it authorized a particular use of the film—public performance—that would otherwise infringe the studio's copyright. If this meaning is what software publishers intend when they claim to "license" the diskettes and CD-ROMs that they distribute, then the usage is unobjectionable but does not accomplish their purposes. As discussed above, the fact that the publisher is only licensing use of the software, rather than transferring ownership of the copyright in it, has no bearing upon the ownership of the diskettes and CD-ROMs. 17 U.S.C. § 202.
assessing the applicability of the first-sale doctrine. If the "license" of a CD-ROM containing software is the equivalent of a sale of the CD-ROM, then the recipient is the owner of the CD-ROM and is entitled to the benefits of sections 109(a) and 117(a) of the Copyright Act. If, on the other hand, such a "license" is the equivalent of a lease or a loan, then the recipient is not entitled to those benefits. If the license constitutes some entirely new species of property relation, then the incidents of that relation must be ascertained before we can determine how the copyright laws apply to it.

By applying licensing rhetoric to a transaction involving a material object, software publishers have sought to import the key incident of licensure as applied to copyrighted works: the fact that licensing a copyrighted work does not imply transfer of ownership of the copyright. However, as the above discussion indicates, the carryover to transactions involving material objects is unjustified. Characterization of a software transaction as involving a "license" of the CD-ROM or floppy diskette on which the software is delivered is at best radically ambiguous. It simply does not answer the question whether the transaction constitutes a first sale of the material object that exhausts the software publisher's public distribution right.

To answer that question, applying the methodology developed in Part I(A)(3), we must consider the incidents of the property relation that results from the "license" of a material object containing copyrighted software, and ask whether that relation is properly described as a sale (including a sale-with-restrictions) or a lease. The critical question is whether the "licensee" of the CD-ROM or floppy diskette has to give it back during its useful life: if not, the transaction is a sale, and the acquirer is the "owner" of the software copy for purposes of sections 109(a) and 117(a).

The claim by software producers that they are "licensing" the material objects on which their software is distributed has a parallel in the efforts by the software rental industry to evade the effect of the Computer Software Rental Amendments Act of 1990. After enactment of that amendment, which was designed to put software rental stores out of business, some of these stores took pains to recharacterize their transactions as not involving any "rental, lease, or lending" of the software copies but rather as—something else. For

106. At worst, it is incoherent. In ordinary parlance, one does not speak of "licensing" a material object. The locution is no more familiar in general legal parlance. Even in the rarified atmosphere of copyright terminology, one does not encounter references to "licensing" material objects other than in software license agreements, except in contexts where it is clear the locution is an elliptical reference to license of the embodied copyrighted work. Use of the term in this context might most charitably be considered a neologism.
example, in *Central Point Software, Inc. v. Global Software & Accessories, Inc.*\(^{107}\) a group of software publishers sued Global, a company that operated three stores offering software on non-sale terms.\(^{108}\) Prior to the 1990 amendment, Global offered software for rental. After 1990, Global put into effect what it termed a "Deferred Billing Plan."\(^{109}\) The court explained:

> [U]nder the DBP, Global permits its customers to take computer software home and keep it for up to five days for a fee, which Global refers to as a "nonrefundable deposit" or "restocking fee." If the customer returns the software within the five-day period, the customer is not charged the balance of the purchase price.\(^{110}\)

These transactions, Global argued, constituted sales of the software followed by returns, *not* rentals.\(^{111}\) Global pointed out that under state law, namely section 2-326(1) of New York's Uniform Commercial Code, its DBP transactions constituted bona fide "sales on approval."\(^{112}\)

The court was not impressed. It explained that "Congress intended to proscribe not only transactions that are called rentals, but also practices that are in substance rentals."\(^{113}\) The fact that the DBP transactions might be treated under state law as something other than a rental was not controlling. "Although, as between transacting parties (e.g., Global and its customers), whether a transaction is a 'sale on approval' is one of state law, this determination does not control the determination of rights afforded the copyright owner (e.g., plaintiffs) by the federal copyright statute."\(^{114}\)

The courts were not fooled by the attempts of software-rental stores to avoid the prohibitions on renting their products by recharacterizing the transactions as sales-plus-returns or sales on approval. They should not allow themselves to be fooled by software publishers that seek to avoid the first-sale doctrine by

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108. *Id.* at 959.
109. *Id.* at 961.
110. *Id.*
111. *Id.* at 963.
112. *Id.*
113. *Id.* at 964.
114. *Id.* at 964-65 (citations omitted). Record-rental stores made similar efforts to evade the 1984 Record Rental Amendment of 1984. *See, e.g.*, A & M Records, Inc. v. A.L.W., Ltd., 855 F.2d 368, 370 n.6 (7th Cir. 1988) ("Appellants contended that they no longer rent records, but merely sell them pursuant to a buy-back provision: customers, defendants contended, may buy a record for two dollars plus a five dollar deposit, which will be returned at the customer's choice within a specified time limit.").
recharacterizing their sales of copies of their software as "licenses" of those copies.\textsuperscript{115}

2. Restricting distributors: retaining title, or limiting their authority to distribute

a. The strategy

Another strategy that software publishers have employed to prevent the end user from gaining ownership of the material objects containing their software consists of limiting the authority of distributors to dispose of those copies. The publisher may implement this strategy through any of three methods: (1) inserting in the distribution agreement a statement that the publisher retains ownership of the copies, (2) structuring the transaction so that the publisher actually does retain ownership of the copies, or (3) inserting in the distribution agreement a statement that the distributor is authorized to transfer ownership of the copies only to certain persons or under certain conditions.

Microsoft invoked this strategy, following the third approach, in \textit{Microsoft Corp. v. Harmony Computers \\& Electronics, Inc.}\textsuperscript{116} Harmony, a computer and software dealer, distributed Microsoft software without Microsoft's authorization.\textsuperscript{117} The software that Harmony distributed consisted of operating system programs (MS-DOS and Windows) that Microsoft declared could not be offered on a stand-alone basis, but only bundled with computer systems.\textsuperscript{118} That declaration was in the form of a "license agreement" between Microsoft and the authorized distributors of its products. The license agreement stated that its distributor-licensees

\begin{itemize}
\item \textsuperscript{115} The Uniform Computer Information Transactions Act [hereinafter UCITA] uses certain terms relating to software transactions in unaccustomed ways. It defines "computer information" as including not only "information in electronic form," but also "a copy of the information and any documentation or packaging associated with the copy." UCITA § 102(a)(10) (2002). Thus, "information" includes not only the computer program, but also the CD-ROM on which it is distributed, the printed manual that accompanies it, and the box in which it is packaged. Conversely, since "goods" is defined as excluding "computer information," the disk and the manual and the box are not "goods," but only "information." \textit{Id.} § 102(a)(33). With the terms so defined, it becomes very difficult to make a statement like "Joe owns the floppy diskette that the program came on" (or even "Joe owns the box it came in")—for how can one own information? On the other hand, "Microsoft licensed that floppy to Joe" trips lightly off the tongue. Federal copyright law, however, is not controlled by such linguistic novelties. The fact that UCITA deems a software copy to be "licensed" does not mean that the acquirer of the copy is not its "owner" for purposes of the first-sale doctrine.
\item \textsuperscript{116} 846 F. Supp. 208 (E.D.N.Y. 1994).
\item \textsuperscript{117} \textit{Id.} at 209.
\item \textsuperscript{118} \textit{Id.} at 213.
\end{itemize}
shall distribute Product(s) only with [licensee's] Customer System(s) . . . for the particular Product(s) and only inside the Customer System package. [The licensee] shall provide a copy of the . . . Product with, and only with, each Customer System on which the corresponding Preinstalled Product Software is distributed.\(^{119}\)

In other words, Microsoft would provide its software only to those dealers who agreed that they would distribute the software only in conjunction with the sale of a computer. The software had to be pre-installed on the computer, and the dealer had to include with the computer a copy of the software on the media (floppy diskettes) on which Microsoft distributed it. A dealer that resold the software inconsistently with these limitations would be violating its contract with Microsoft.

Harmony acquired the software from a supplier, and then distributed the software to end users on a stand-alone basis, without any accompanying computer.\(^{120}\) Neither Harmony nor its supplier had entered into a license agreement permitting it to sell Microsoft products.\(^{121}\) Microsoft sued Harmony for copyright infringement.

Harmony argued that it was entitled to the benefits of the first-sale doctrine, since it had purchased the software copies. But the court held that Harmony could get good title to the software only if its supplier was authorized to sell it. That was not the case, since Harmony's immediate supplier was not a licensee of Microsoft and so was not authorized to sell the software.\(^{122}\) Some of the software was traced back to upstream suppliers that were Microsoft licensees and so were authorized to sell the software; but under the terms of their distribution agreements with Microsoft, they were not authorized to distribute the software apart from an accompanying computer. Since each reseller's sale was unauthorized, the court held, Harmony never acquired good title to the software copies, and therefore the first-sale doctrine was not available as a defense.\(^{123}\)

b. Critique of the strategy

Limiting a distributor's authority to sell software copies, using any of the three methods described above, generally does not prevent an end user who purchases a copy from that distributor, in a manner

\(^{119}\) Id. (bracketed material and ellipses in original).
\(^{120}\) There was an allegation that at least some of the software was counterfeit, consisting of pirated copies of Microsoft's software. On this preliminary injunction motion, the court did not resolve that issue, and proceeded on the assumption that the software was genuine. Id. at 212.
\(^{121}\) Id.
\(^{122}\) Id. at 212-13.
\(^{123}\) Id.
that the software publisher seeks to prohibit, from obtaining ownership of the copy.

i. Declaration of retained ownership

Transactions involving software copies are generally held to be sales of goods, within the scope of Article 2 of the UCC.124 Under the UCC, if a transaction is a sale, then a purported retention of title does not prevent title from passing, but only creates a security interest.125 Therefore, a bare statement in the distribution agreement that the title to the copies remains in the software publisher does not prevent the first-level distributor from acquiring title to the copies. Since the distributor holds title, its subsequent sale to the retailer conveys that title, as does the retailer's sale to the end user.

ii. Actual retention of ownership

Even a contractual provision that succeeds in preventing the first-level distributor from acquiring title to the software copies—such as one that makes the transaction a bailment rather than a sale—does not under normal circumstances prevent the end user from acquiring title. Section 2-403 of the UCC governs the authority of a seller of goods to transfer good title to a purchaser under various

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124. See Advent Sys. Ltd. v. Unisys Corp., 925 F.2d 670, 676 (3d Cir. 1991) ("[W]e hold that software is a 'good' within the definition in the Code."); Mark A. Lemley, Intellectual Property and Shrinkwrap Licenses, 68 S. CAL. L. REV. 1239, 1244 n.23 (1995) (observing that "almost all courts and commentators that have considered the issue have concluded that a shrinkwrap license transaction is a sale of goods rather than a license, and is therefore covered by Article 2"). But see Lorin Brennan, Why Article 2 Cannot Apply to Software Transactions, 38 DUQ. L. REV. 459, 545-77 (2000) (criticizing many cases finding software transactions are covered by Article 2, and praising a few cases to the contrary).

Recent amendments to the Uniform Commercial Code ratify these judicial interpretations. The 2003 revision of Article 2 contains an amended definition of "goods," which explicitly excludes "information." U.C.C. § 2-103(1)(k) (2004). The exclusion is worded so that the material objects on which information may be recorded are not excluded, and therefore are impliedly within the definition of "goods." In 2003, the definition of "goods" in Article 9 of the UCC was amended, so that it includes "a computer program embedded in goods" if the program "customarily is considered part of the goods" (as in the case of mechanical goods containing embedded code), but "[t]he term does not include a computer program embedded in goods that consist solely of the medium in which the program is embedded." U.C.C. § 9-102(a)(44). Thus, the medium on which a computer program is distributed, such as a CD-ROM or a floppy diskette, is explicitly within the definition of "goods," although the computer program is not.

If the CD-ROM on which a computer program is distributed is not a "good" for purposes of the UCC, it is hard to see how the bound paper book on which a literary work is distributed, or the canvas on which a painting is distributed, could be a "good.

125. See U.C.C. § 2-401(1) ("Any retention or reservation by the seller of the title (property) in goods shipped or delivered to the buyer is limited in effect to a reservation of a security interest.").
circumstances in which the seller does not hold title. In particular, section 2-403(2) deals with a situation in which the owner of a good places it in the possession of a merchant who deals in goods of that kind, and the merchant sells it to a good-faith buyer without the owner's authorization. In that case, the buyer acquires title to the good, and the prior owner is out of luck. Section 2-403(2) provides: "Any entrusting of goods to a merchant that deals in goods of that kind gives the merchant power to transfer all of the entruster's rights to the goods and to transfer the goods free of any interest of the entruster to a buyer in ordinary course of business." is broadly defined, to include "any delivery and any acquiescence in retention of possession regardless of any condition expressed between the parties to the delivery or acquiescence."

A "buyer in ordinary course of business" is defined as "a person that buys goods in good faith, without knowledge that the sale violates the rights of another person in the goods, and in the ordinary course from a person, other than a pawnbroker, in the business of selling goods of that kind."

The rationale of section 2-403(2) is that where both the entruster and the ultimate purchaser are innocent, the loss should fall on the former, since he is in a better position to avoid placing the goods in the hands of a dishonest intermediary, and since this rule promotes the free flow of commerce.

This rule applies to transfers of material objects containing copyrighted material, no less than it does to automobiles and farm equipment. In Independent News Co. v. Williams, plaintiff Independent, a distributor of comic books, sold comics to wholesalers,

126. See 2 WILLIAM D. HAWKLAND, UNIFORM COMMERCIAL CODE SERIES § 2-403:1 (2002) (stating that section 2-403 embodies the common law doctrine by which "a seller with an imperfect title . . . pass[es] perfect ownership to a bona fide purchaser").

127. Id. § 2-403:7.

128. Id. § 2-403:1. Many section 2-403(2) cases involve cars and other vehicles. See, e.g., Marlow v. Conley, 787 N.E.2d 490 (Ind. App. 2003). In Marlow, the purchaser of a truck was held to have obtained good title to it, even though the dealer from whom he bought it was not authorized to sell it, where the owner had acquiesced in the dealer's possession of it, and the buyer had no knowledge of the lack of authority. Id.

129. U.C.C. § 2-403(2).

130. Id. § 2-403(3).

131. Id. § 1-201(b)(9).


133. 293 F.2d 510 (3d Cir. 1961).
which in turn sold them to retailers.\textsuperscript{134} The contract between Independent and the wholesalers provided that a wholesaler must collect unsold comics from its retailers, return the covers to Independent, and then destroy the coverless comics.\textsuperscript{135} A wholesaler sold the comics to a wastepaper dealer, which sold them to the defendant, a dealer in used books and magazines, who resold them as reading material.\textsuperscript{136} The complaint charged the magazine dealer with conversion and copyright infringement, among other things.\textsuperscript{137} The court held that section 2-403(2) applied, since (1) plaintiff entrusted the comics to the wholesaler, a merchant that deals in goods of that kind, and (2) the wastepaper dealer was a good-faith purchaser, since it was not aware of any restrictions on the use of the coverless comics.\textsuperscript{138} Therefore, the wastepaper dealer acquired full title to the comics, which it transferred to the defendant, defeating the conversion claim.\textsuperscript{139} Applying the first-sale doctrine,\textsuperscript{140} the court held that, as owner of the comics, defendant was free to resell them without authority of the copyright owner, and therefore defendant did not infringe the distribution right.\textsuperscript{141}

iii. Restrictions on the distributor's authority to transfer software copies

A software publisher may seek to control the disposition of its products by binding the distributor contractually to distribute copies only to certain users, such as educational or non-commercial users, or by permitting distribution only in connection with the sale of a computer. A distributor's failure to observe such restrictions may constitute breach of the distributor's contract with the publisher, or infringement of the publisher's copyright, but it does not prevent the end user from gaining ownership of the software copy.

Illustrating this principle is \textit{John D. Park & Sons Co. v. Hartman},\textsuperscript{142} an opinion by Judge, later Supreme Court Justice,

\begin{itemize}
\item \textsuperscript{134} \textit{Id.} at 511.
\item \textsuperscript{135} \textit{Id.} at 511-12.
\item \textsuperscript{136} \textit{Id.} at 511.
\item \textsuperscript{137} \textit{Id.} at 512, 515-17.
\item \textsuperscript{138} \textit{Id.} at 513-14.
\item \textsuperscript{139} \textit{Id.} at 512-14.
\item \textsuperscript{140} \textit{Id.} at 515-17. \textit{The case was decided under the 1909 Act, and accordingly the first-sale doctrine of section 27 was applicable. Id. at 517. The court's statement of the doctrine—"Under this provision, once there is lawful ownership transferred to a first purchaser, the copyright holder's power of control in the sale of the copy ceases," id. at 517—is consistent with present section 109(a).}
\item \textsuperscript{141} \textit{Id.} at 515-17; \textit{see also} Fournier v. Tichenor, 944 S.W.2d 398, 399-400 (Tenn. App. 1996) (applying section 2-403(2) to artworks).
\item \textsuperscript{142} 153 F. 24 (6th Cir. 1907).
\end{itemize}
Lurton, in which the plaintiff, a manufacturer of proprietary medicines, sought to control the distribution of his products through a system of contracts.\textsuperscript{143} Plaintiff sold his products to wholesalers, pursuant to contracts under which they agreed to resell the products only at specified prices, and only to authorized retailers.\textsuperscript{144} The authorized retailers were those who had agreed to resell the products to consumers only at specified prices.\textsuperscript{145} The defendant was a wholesaler who did\textit{not} enter such a contract with the plaintiff.\textsuperscript{146} Defendant purchased the products from plaintiff's authorized wholesalers, at prices less than those for which the wholesalers were contractually bound to sell them, and then resold them to "retailers operating 'cut rate drug stores'" (also not under contract with the plaintiff), which sold them to consumers at less than the prescribed retail price.\textsuperscript{147} Plaintiff sought an injunction restraining the defendant from any further unauthorized purchases and sales.\textsuperscript{148}

The court assumed that the defendants were not "licensed" to purchase the products; that the vendors who sold the products to the defendants did so in breach of their contracts with the plaintiff; and that the defendants were aware of the whole arrangement, and thus knew that the vendors' sales to them were not "authorized" by the plaintiff.\textsuperscript{149} Nevertheless, the court held, the defendants were owners of the goods they purchased under these circumstances:

What is the result? Did the defendants by so purchasing, with knowledge of the restrictions imposed upon sales, thereby enter into contractual relations with complainant? Manifestly not. Did they obtain the absolute title, notwithstanding their knowledge that the sale was in breach of restrictions imposed upon the seller? Undoubtedly. The restrictions imposed by complainant upon sales and resales, if valid at all, are only so because they constitute personal contracts upon which an action will lie only against the contracting party.\textsuperscript{150}

Thus, if a software publisher sells software copies to a distributor, who is bound contractually to distribute the copies only to specified users or under specified circumstances, but who faithlessly distributes the copies in violation of the contract, the

\begin{itemize}
\item \textsuperscript{143} Id. at 25.
\item \textsuperscript{144} Hartman v. John D. Park & Sons Co., 145 F. 358, 359 (E.D. Ky. 1906), rev'd, 153 F. 24 (6th Cir. 1907).
\item \textsuperscript{145} Id.
\item \textsuperscript{146} Id.
\item \textsuperscript{147} Id. at 359.
\item \textsuperscript{148} Id.
\item \textsuperscript{149} John D. Park & Sons Co., 153 F. at 38-39.
\item \textsuperscript{150} Id. at 39.
\end{itemize}
transaction nonetheless transfers good title to the acquirer.151

To summarize the above critique: (1) a mere declaration in a distribution agreement stating that the software publisher retains title to the copies it sells to its distributors does not prevent the passage of title, but only creates a security interest; (2) if the publisher does not sell the copies but only gives the distributor possession of them through a bailment, a good-faith purchaser from the distributor nevertheless acquires ownership of the copies; and (3) a distributor that sells software copies in violation of its distribution agreement nevertheless conveys ownership of the copies to the purchaser.152

151. Courts that have failed to appreciate this point include Adobe Sys. Inc. v. Stargate Software Inc., 216 F. Supp. 2d 1051, 1058 (N.D. Cal. 2002) (holding that the distribution agreement "contains numerous restrictions on title that are imposed on the reseller, limiting the reseller’s ability to re-distribute Adobe software"); Adobe Sys. Inc. v. One Stop Micro, Inc., 84 F. Supp. 2d 1086, 1092 (N.D. Cal. 2000) (holding that contractual restrictions on a distributor’s authority to dispose of software copies prevented title from passing to a purchaser); and Microsoft Corp. v. Harmony Computers & Electronics, Inc., 846 F. Supp. 208, 212-13 (E.D.N.Y. 1994) (holding that reseller did not acquire good title to copies of Microsoft’s products because it could not trace its title to one who was “authorized to sell the product”).


As other courts have correctly held, a software publisher’s policy against transferring ownership of software copies to unauthorized recipients does not control, if its actions show that a transfer of ownership has occurred. See Picker Int’l Corp. v. Imaging Equip. Servs., Inc., 931 F. Supp. 18, 38 (D. Mass. 1995), aff’d mem., 94 F.3d 640 (1st Cir. 1996) (competitor that purchased copy of service manual from plaintiff’s parts department, in violation of plaintiff’s policy, nevertheless became the owner of the copy for purposes of the first-sale doctrine); Walt Disney Prods. v. Basmajian, 600 F. Supp. 439, 441-42 (S.D.N.Y. 1984) (Disney’s alleged policy prohibiting transfer of animation cels to its employees did not defeat employee’s title to cels given to him).

152. UCITA’s provisions on transfer of title to a software copy seem to contradict some of these conclusions. UCITA seems to say that a software publisher can control ownership of the copy by a bare declaration in the license agreement, without regard to the economic realities of the transaction, and that a distributor that does not hold title to a software copy cannot convey good title to a good-faith purchaser. See UCITA § 502(a)(1) (2002) (“title to a copy is determined by the license”); id. § 506(b) (“a transferee acquires no more than the contractual interest or other rights that the transferor was authorized to transfer”). To the extent these provisions enlarge the degree of control that a copyright owner can assert over copies that he has distributed, they may be held preempted by the Copyright Act. See infra Part II. A finding of preemption seems inevitable with respect to one particular provision on title transfer: “a licensee’s right under the license to possession or control of a copy is governed by
3. Attaching use restrictions to the copy itself

a. The strategy

Another strategy that copyright owners have occasionally adopted in an effort to limit the end user's authority to dispose of a copy that has been subject to a first sale is imposition of a restriction on use of the copy that follows the copy itself and purports to bind whoever possesses it. For example, in RCA Manufacturing Co. v. Whiteman, supra. RCA sold phonograph records containing recordings of orchestral performances to a distributor, which resold them to W.B.O. Broadcasting, which used them to broadcast the music by radio. The records were clearly labeled as "Not Licensed for Radio Broadcast." RCA claimed that W.B.O.'s use of the records for broadcast infringed its common-law copyright in the performances. This common-law protection would have been available only if the contractual use restriction had prevented RCA's distribution of the records from being considered a "publication" of the orchestra performances.

Judge Learned Hand, writing for the court, held that the restriction RCA attempted to place upon use of the phonograph records was invalid. The court explained: "Restrictions upon the uses of chattels once absolutely sold are at least prima facie invalid; they must be justified for some exceptional reason, normally they are 'repugnant' to the transfer of title."
In recent years, software publishers have revived and updated the strategy of attaching a use restriction to a copy of a copyrighted work, in the form of clickwrap licenses. This device is familiar to anyone who has installed software on a computer in the past decade or two. During the installation process, a message appears on the user's screen, stating certain terms and conditions that the publisher wishes to impose on the user. To proceed to the next step of the installation, the user must take some action—usually clicking an on-screen button labeled "I Agree" or the like—indicating her assent to those terms. On the strength of that click, the software publisher claims, generally successfully,¹⁵⁹ that the terms and conditions are incorporated into a contract between the user and the software publisher, limiting the uses that may be made of the software.

While the enforceability of such use restrictions is premised upon contract, the technological features of this method of acquiring consent make the use restriction functionally one that inheres in the software copy itself. In the normal course,¹⁶⁰ it is impossible to make use of the software without agreeing to the use restriction. Therefore, the use restriction is equally binding on anybody who happens to come into possession of the software copy and install it.¹⁶¹ The restriction thus travels with the copy, in a way that contractual restrictions usually do not.

b. Critique of the strategy

This strategy conflicts with longstanding public policy strongly


¹⁶⁰. By application of sufficient ingenuity one might manage to circumvent the installation system and install the software without clicking "I Agree," but only at peril of exposing oneself to liability under 17 U.S.C. § 1201(a)(1)(A), which provides: "No person shall circumvent a technological measure that effectively controls access to a work protected under this title."

¹⁶¹. See Lemley, supra note 79, at 147-49.
disfavoring restraints on alienation of personal property.\textsuperscript{162} In \textit{Dr. Miles Medical Co. v. John D. Park & Sons Co.},\textsuperscript{163} the Supreme Court invalidated the same system of distributing goods as was at issue in \textit{John D. Park & Sons, Co. v. Hartman}.\textsuperscript{164} The Court explained that "a general restraint upon alienation is ordinarily invalid."\textsuperscript{165} It continued:

The right of alienation is one of the essential incidents of a right of general property in movables, and restraints upon alienation have been generally regarded as obnoxious to public policy, which is best subserved by great freedom of traffic in such things as pass from hand to hand. General restraint in the alienation of articles, things, chattels, except when a very special kind of property is involved, such as a slave or an heirloom, have been generally held void. "If a man," says Lord Coke, in \textit{2 Coke on Littleton}, § 360, "be possessed . . . of a horse or of any other chattel, real or personal, and give or sell his whole interest or property therein, upon condition that the donee or vendee shall not alien the same, the same is void, because the whole interest and property is out of him, so as he hath no possibility of a reverter; and it is against trade and traffic and bargaining and contracting between man and man."\textsuperscript{166}

Although \textit{Dr. Miles} involved an effort by the vendor to control resale prices, which ran counter to the policy of the antitrust laws, the Supreme Court has made clear that the holding was premised not on the illegality of the end result, but on the means of achieving it:

"\textit{Dr. Miles} . . . decided that under the general law the owner of movables . . . could not sell the movables and lawfully by contract fix a price at which the product should afterwards be sold, because to do so would be at one and the same time to sell and retain, to part with and yet to hold, to project the will of the seller so as to cause it to control the movable parted with when it was not subject to his will because owned by another."\textsuperscript{167}

\textsuperscript{162} By contrast, a restriction on the use of real property is generally permitted to run with the land. However, such a servitude is invalid, as contrary to public policy, if it "imposes an unreasonable restraint on alienation." \textit{Restatement (Third) of Prop.: Servitudes} § 3.1(3) (1998).

\textsuperscript{163} 220 U.S. 373 (1911).

\textsuperscript{164} See \textit{id.} at 405 (citing \textit{John D. Park & Sons Co. v. Hartman}, 153 F. 24, 39 (6th Cir. 1907)).

\textsuperscript{165} \textit{id.} at 404.

\textsuperscript{166} \textit{id.} at 404-05 (quoting \textit{John D. Park & Sons Co.}, 153 F. at 39).

The courts have almost universally rejected the possibility of such a running servitude, both in copyright cases and in other contexts. Only a few courts have held such servitudes enforceable, and they are regarded as aberrations. Some

168. See Bobbs-Merrill Co. v. Straus, 210 U.S. 339, 350-51 (1908) (statement of minimum resale price printed on the copyright page of the book does not extend copyright owner's rights to copies that it has voluntarily sold); Indep. News Co. v. Williams, 293 F.2d 510, 517-18 (3d Cir. 1961) (notice on comic book stating that it may not be sold if its cover is removed not enforceable against one who bought the comics from a wastepaper dealer); RCA Mfg. Co. v. Whiteman, 114 F.2d 86, 89 (2d Cir. 1940) ("Restrictions upon the uses of chattels once absolutely sold are at least prima facie invalid; they must be justified for some exceptional reason, normally they are 'repugnant' to the transfer of title."); Harrison v. Maynard, Merrill & Co., 61 F. 689, 691 (2d Cir. 1894) (explaining that once a copy has been sold, "the ordinary incidents of ownership in personal property, among which is the right of alienation, attach to it"); Authors & Newspapers Ass'n v. O'Gorman Co., 147 F. 616, 619-20 (D.R.I. 1906) (notice inside cover of book, stating a prescribed resale price, and forbidding resale before a certain date, not enforceable as against purchaser who did not assent to be bound contractually by those terms).

169. See Straus v. Victor Talking Mach. Co., 243 U.S. 490, 500-01 (1917) (refusing to give effect to manufacturer's "License Notice" attached to a patented machine, as against one not in a contractual relationship with the manufacturer); Hewlett-Packard Co. v. Repeat-O-Type Stencil Mfg. Corp., 123 F.3d 1445, 1453 (Fed. Cir. 1997) ("A noncontractual intention is simply the seller's hope or wish, rather than an enforceable restriction."); Hartford Charga-Plate Assocs. v. Youth Centre-Cinderella Stores, 215 F.2d 668, 671 (2d Cir. 1954) (defendant retail store's acceptance of charge plates that plaintiff store had issued to common customers was not wrongful, since "plaintiff, having relinquished its plates freely to its customers, could no longer burden them with an inconsistent servitude passing with their transfer and binding upon strangers"); John D. Park & Sons Co. v. Hartman, 153 F. 24, 39 (6th Cir. 1907) ("A covenant which may be valid and run with land will not run with or attach itself to a mere chattel.").

170. See Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 702, 709 (Fed. Cir. 1992) (holding a package insert stating "For Single Patient Use Only" accompanying a patented medical device is enforceable against one with notice of it, so that a third party that reconditions the device for reuse infringes the patent); Chemagro Corp. v. Universal Chem. Co., 244 F. Supp. 486, 490 (E.D. Tex. 1965) ("A purchaser of a patented product having actual notice of a limited patent license in the form of a written label notice attached to the product restricting the use to which the purchaser may put the product, and who uses and sells such product in violation of the limited patent license is an infringer of the patent for such product."). Additional cases enforcing servitudes on personal property are discussed in Glen O. Robinson, Personal Property Servitudes, 71 U. CHI. L. REV. 1449 (2004), and Zechariah Chafee, Jr., The Music Goes Round and Round: Equitable Servitudes and Chattels, 69 HARV. L. REV. 1250 (1956).

In Waring v. WDAS Broadcasting Station, Inc., the court observed: "Where public policy or some other determinative consideration is not involved, why should the law adopt an immutable principle that no restrictions, reservations, or limitations can ever be allowed to accompany the sale of an article of personal property?" 194 A. 631, 637 (Pa. 1937). The court did not, however, actually enforce the restriction, but only found it effective to prevent a copyright owner's distribution of phonorecords from constituting "publication" that divests the work of common-law copyright protection.
commentators have argued that the prohibition against equitable servitudes that run with personal property lacks a firm grounding in policy, and should be reconsidered. As applied to traditional property, the prohibition is a creature of the common law and may bear judicial reconsideration. With respect to material objects containing copyrighted works, however, the prohibition on running servitudes has its basis in positive law: the first-sale doctrine. As the Supreme Court established in Bobbs-Merrill Co. v. Straus, and as Congress has ratified, a restriction on disposition of a copy of a copyrighted work that purports to bind any possessor of the copy is an invalid attempt to extend the public distribution right beyond Congress's grant.

Since clickwrap terms are functionally a running servitude, and only formally a contract, there would seem to be a good argument that they are ineffective to extend the publisher's distribution right to allow control of a copy that has been subject to a first sale, both under the general policy disfavoring restraints on alienation, and as inconsistent with the first-sale doctrine.

4. Why all the confusion?

As the above discussion indicates, courts, as well as commentators and even the Copyright Office, have evinced a good deal of confusion in applying the first-sale doctrine to software copies. The most common error is to confuse the copyrighted work with the material object in which it is embodied: when required to determine whether a person is the owner of a software copy, they

171. See Robinson, supra note 170, at 1455 ("[T]he conventional wisdom among commentators appears to be [that] such servitudes are the rough equivalent of a liger, the sterile offspring of a male lion and a female tiger that is found only in the occasional zoo."). Professor Chafee, writing in 1928, argued that the per se rule against servitudes on chattels was not well founded, but confessed he was unable to locate "a single square decision establishing such a conception in a court of last resort." Zechariah Chafee, Jr., Equitable Servitudes on Chattels, 41 HARV. L. REV. 945, 1013 (1928).

172. See Robinson, supra note 170, at 1480-1515 (arguing that traditional justifications for the prohibition against servitudes on personal property are formalistic and unconvincing, and arguments founded on competition policy do not justify a broad-ranging prohibition); Thomas Arno, Comment, Use Restrictions and the Retention of Property Interests in Chattels Through Intellectual Property Rights, 31 SAN DIEGO L. REV. 279, 295-97 (1994) (arguing that use restrictions facilitate price discrimination, which may be efficiency-enhancing); Chafee, supra note 171, at 977-87 (arguing that a rationale for treating servitudes on real property, which are permissible, so differently from servitudes on personal property had not been well articulated).


174. Enforceability of such use restrictions, qua contract, is addressed infra in Part II.
frequently have inquired instead whether that person is the owner of the copyright or only a licensee.

This persistent confusion is puzzling, given that courts have not had the slightest difficulty distinguishing between the work and the object with respect to other types of copyrighted works. I am not aware of any case, for example, in which a court accepted an argument that the acquirer of a book, since she did not obtain ownership of the copyright in the literary content, is not the owner of the paper and ink of which it is made. Yet the relationship between work and object is precisely the same for software as with any other type of work: computer program is to diskette, as novel is to paper, as music is to CD, as artwork is to paint, and so forth.

What might explain this confusion concerning software? The answer, it seems to me, must lie in the fact that no other type of copyrighted work (with the exception of motion pictures) is routinely distributed subject to a "license agreement."\textsuperscript{175} The existence of the license agreement—more properly, a putative contract between the software publisher and the end user\textsuperscript{176}—means that the distribution of a software copy involves two separate transactions. First, there is the transaction in which the acquirer obtains the copy from a retailer or other vendor, the terms of which are governed by a contract between the acquirer and the vendor. Second, there is a transaction involving the acquirer and the software publisher, governed by the "license agreement," which becomes effective if and when the acquirer assents to it. Software publishers assert that the second contract governs the first transaction. Unaccustomed to such three-party transactions, the courts allow their attention to drift away from ownership of the copy and focus instead on ownership of the copyright.

5. Summary: the applicable principles

We may distill from the above discussion several principles that courts should apply in assessing claims by software publishers that the Copyright Act empowers them to control the disposition of copies

\textsuperscript{175} Why license agreements arose in connection with software, but not any other types of copyrighted works, has historical roots. Before the 1980 amendment of the Copyright Act, which explicitly established that computer programs are protected by copyright, license agreements were designed to protect the intellectual property of software publishers through a combination of contract and trade secret law. See SoftMan Prods. Co. v. Adobe Sys., Inc., 171 F. Supp. 2d 1075, 1083 (C.D. Cal. 2001). One might speculate that they continue to be used because they provide a handy mechanism for imposing contractual limitations on the acquirer's rights with respect to the software, and for introducing additional terms such as mandatory arbitration and choice-of-forum clauses.

\textsuperscript{176} See supra note 79.
of their software that have been acquired by end users:

1. In determining whether a first sale has occurred, exhausting the software publisher's right to control distribution with respect to a particular copy containing its software, the determinative issue is whether there has been a sale of the material object that contains the software: ownership of the copyright in the software is irrelevant.

2. The question whether a transaction through which the end user acquired the software is a "sale" or only a "license" is a red herring. The vast majority of transactions involving software involve both: a sale of the material object on which the software is distributed, and a license (which may be no more than a restatement of the prerogatives of a software copy owner under section 117(a) of the Copyright Act) to use the computer program.

3. A software publisher's claim that it "licenses" the material object on which software is distributed does not resolve the first-sale inquiry. A court must look behind such a claim, and determine whether the transaction is a sale or a lease or other bailment.

4. Contractual restrictions on a distributor's authority to transfer ownership of software copies do not prevent the acquirer from gaining ownership.

5. If the software publisher places copies in the hands of a distributor, a good-faith purchaser from the distributor acquires ownership of the copy even if the distributor is only a bailee.

C. Copy ownership and use restriction in three common software-distribution scenarios

In this section, I apply the principles developed above to determine the ownership status of copies of software that are distributed through three common commercial paradigms: (1) a standard retail chain of distribution from the software publisher to the end user via one or more levels of distributors; (2) direct distribution from publisher to end user, either by physical transfer of a diskette or some other material object, or by download; and (3) supply of systems consisting of both hardware and software, with the hardware either leased or sold.

1. Standard retail chain of distribution

When software is distributed through a standard retail chain of distribution—from the software publisher, through one or more levels of distributors, to a retailer, and finally to the end user—the end user inevitably acquires ownership of the material object on which the software is distributed.

Consider some concrete examples. You walk into a ComputoMart store, select a package containing 50 blank CD-R disks, bring it to the cashier, pay the price indicated, and walk out of the store with
your package in hand. Nobody would doubt that you are the "owner" of those disks, free to exercise all of the normal incidents of ownership. Even if you have not exchanged a single word with the cashier, context indicates that there has been a purchase and sale. By placing the package of CD-Rs on its shelf accompanied by a price, ComputoMart has extended an offer to sell. When you take the package to the cash register and pay the indicated price, you have accepted that offer. A sale has occurred, and you are the new owner of the disks.

Suppose that while in the same store you pay the indicated price for a copy of Macworld magazine. By the same reasoning you walk out as the owner of the magazine as well. Note that the magazine is a "copy" in the copyright sense: it is a material object in which copyrighted works, consisting of text, pictures, and perhaps other elements, are fixed. The involvement in this transaction of a copyrighted work is irrelevant to the question whether you own the magazine. Certainly you do not, by virtue of your purchase of this material object, gain any ownership of the copyright in the literary or pictorial works embodied in it; but just as certainly, the embodiment in that material object of the literary and pictorial works does not defeat your ownership of the paper and ink. If somebody grabs the magazine from you, it is theft—even if the grabbing is done by an agent of the copyright owner.

Now suppose that you add an additional item to your shopping cart: a computer game, "The Sims Deluxe Edition," published by Electronic Arts. This item ships on a CD-ROM. Like the Macworld magazine, the CD-ROM is a "copy" in the copyright sense: a material object containing a copyrighted work, namely a computer program. Based on the same logic that applies to the magazine and the blank CD-R, it is clear that you are the owner of the CD-ROM (though not of the copyright in the computer program). If somebody takes the disk from you, you would report it as a theft, and the police, when apprised of the facts, would not refuse to investigate the incident on the ground that you are a mere licensee, and not an owner, of the disk.

In each of these ComputoMart transactions, the context indicates that the transaction is a purchase and sale, and you become the owner of each of the material objects (though of none of the

177. A vendor's holding out an item for sale at a particular price may be construed either as an offer to sell, or as an invitation for a prospective purchaser to make an offer to buy at that price, depending on what the context indicates about the intent of the vendor. In the former case, the buyer's handing over the money is an acceptance of the offer. In the latter case, the vendor's handing over of the item is an acceptance of the buyer's offer to purchase. See E. ALLAN FARNsworth, FARNsworth ON CONTRACTS § 3.10 (2d ed. 1998).
copyrights) once you pay for it.

a. Assertion of retained ownership in a license agreement

Software publishers assert, however, that by virtue of language in the accompanying license agreement, the transaction involving the Sims Deluxe software is different from the other two. While presumably agreeing that you own the blank CD-Rs and the Macworld magazine, they claim you are not the owner of the CD-ROM that holds the software, but only a licensee. They base this claim upon language in the license agreement to the effect that the software is licensed, not sold.\textsuperscript{178}

Applying the principles developed above, it is clear that language in the Sims Deluxe license agreement is incapable of bringing about this result. In the ordinary course of distributing its goods through a retail distribution chain, Electronic Arts sold the package containing the software disk to a distributor, which sold it (perhaps via one or more additional levels of distributors) to ComputoMart, which sold it to the end user. In each of those transactions, the ownership of the box, CD-ROM, manuals, and whatever else was in the package was transferred from the seller to the buyer. In the last transaction, ownership was transferred from ComputoMart to the end user. A statement by Electronic Arts in the license agreement can have no effect on the ownership of any of these materials, because Electronic Arts divested itself of its ownership of the materials in the first transaction. Once it has ceased to be the owner of the package and its contents, Electronic Arts has no more power to affect their ownership than does any other stranger to the transaction.

The implausibility of the assertion that a license agreement is effective to establish the software publisher's ownership of the copies it distributes is exacerbated by the timing of the presentation of the license agreement. In a typical retail software transaction, the

\textsuperscript{178} See, e.g., SoftMan Prods. Co. v. Adobe Sys. Inc., 171 F. Supp. 2d 1075, 1083 (C.D. Cal. 2001) ("Adobe argues that the first sale doctrine does not apply because Adobe does not sell or authorize any sale of its software. Adobe characterizes each transaction throughout the entire stream of commerce as a license."); Adobe Sys. Inc. v. One Stop Micro, Inc., 84 F. Supp. 2d 1086, 1091 (N.D. Cal. 2000) (relying on a declaration stating "Adobe's intent in drafting and signing these documents to create a license, rather than a sale of our software"); Novell, Inc. v. Network Trade Center, Inc., 25 F. Supp. 2d 1218, 1230 (D. Utah 1997) ("Novell argues that it retains ownership and that the 'shrinkwrap' license included with each copy of NetWare is binding, giving to authorized purchasers only a license to use the software."), vacated in part due to parties' settlement, 187 F.R.D. 657 (D. Utah 1999); Applied Info. Mgmt., Inc. v. Icart, 976 F. Supp. 149, 152 (E.D.N.Y. 1997) ("AIM argues that because Brownstone is a licensee it can not be the 'owner of a copy' of the Software entitled to the protection of Section 117.").
acquirer of the software copy is not permitted to see the terms of the license agreement until after completion of the transaction resulting in acquisition of the software. The bulk of the license terms are generally not printed on the outside of the packaging in which the software copy is distributed, but rather are inside the box—either printed in the user’s manual, on a separate piece of paper in the box, or appearing on the monitor of the user’s computer the first time it is loaded.\textsuperscript{179} The software publisher is therefore not only a stranger to the transaction through which the end user acquires the software, but is attempting to alter the terms of that transaction post hoc.

What is stated in the license agreement can have no effect on the ownership of the material object embodying the copyrighted software program for the simple reason that, as explained above, \textit{ownership of the material object is entirely independent of ownership of the copyright in the work of authorship fixed in that object}.\textsuperscript{180} In each of those transactions down the chain of distribution, first Electronic Arts and then each subsequent party transferred ownership of the material object; but in none of those transactions was there any transfer of ownership of the copyright. Electronic Arts retained full ownership of the copyright, as the package containing the software moved from its hands to the distributor, to the retailer, and finally to the end user. Indeed, even if Electronic Arts had elected to sell the software without any accompanying license agreement, it would still retain full ownership of the copyright.\textsuperscript{181} Language in the license agreement may govern the acquirer's prerogatives with respect to the computer program, a work of authorship protected by copyright; it has no relevance whatsoever to ownership of the material object that embodies this work of authorship.

The relationship between a license agreement and the material object it accompanies may be more clearly illustrated by considering the other two items involved in our hypothetical purchase from ComputoMart. Suppose the manufacturer of the blank CD-R disks, Imation Corporation, included in its package of disks, underneath a plastic wrapper that must be broken to get access to the disks, a piece of paper captioned “License Agreement,” which states: “The

\textsuperscript{179} Whether statements of terms and conditions that are presented in this manner, called “shrinkwrap agreements,” are contractually binding is controversial. \textit{Compare} ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996) (upholding validity of software license terms presented post-transaction); M.A. Mortenson Co. v. Timberline Software Corp., 998 P.2d 305 (Wash. 2000) (same); \textit{with} Step-Saver Data Sys., Inc. v. Wyse Tech., 939 F.2d 91 (3d Cir. 1991) (holding that post-transaction terms are proposed additional terms that purchaser did not accept); Klocek v. Gateway, Inc., 104 F. Supp. 2d 1332 (D. Kan. 2000) (same).

\textsuperscript{180} See supra notes 87-92 and accompanying text.

\textsuperscript{181} There can be no transfer of copyright ownership without a signed writing. See 17 U.S.C. § 204(a) (2000).
disks contained in this package are licensed, not sold." Surely nobody
would believe that such a statement would cause the purchaser of
the package not to be the owner of the disks; Imation sold those disks
to a distributor, which sold them to ComputoMart, which sold them
to the end user. It would be as though General Motors stuck a notice
in the glove compartment of a car that it manufactured, stating "This
car belongs to General Motors," and then invoked the notice in an
action in replevin to recover the car from the person who bought the
car from the person who bought the car from the dealer that
originally sold it.

But the items in this package, CD-R disks, are precisely the
same commodity whose ownership is at issue in the case of the Sims
Deluxe program. The only difference is that the latter disk has a
copyrighted software program inscribed on it, the rights to which the
license agreement may indeed control. But in neither case does the
license agreement control the ownership of the disks.

The same holds true of the Macworld magazine. Imagine a
declaration on the cover of the magazine stating: "This magazine,
and its contents, are licensed, not sold. By opening this magazine you
assent to these terms." Nobody would contend that this declaration
makes the purchaser of the magazine only a licensee, and not an
owner, of the paper and ink constituting the magazine. The
purchaser acquired it in a sales transaction from ComputoMart, and
the desire of the copyright owner that the purchaser should not gain
ownership of the copy of the magazine is irrelevant. Yet the
magazine, like the Sims Deluxe CD-ROM, is a material object
embodying a copyrighted work.

In several other contexts, courts have routinely recognized that
transactions that software producers characterize as licenses of
copyrighted work are in fact, or in addition, sales of material objects.
First, as discussed above, courts generally hold that a transaction
involving a material object containing software is a sale of goods, and
that contracting issues are therefore governed by Article 2 of the
Uniform Commercial Code. Second, while early cases held that
software was intangible and therefore not subject to state sales and
use taxes, the modern trend, beginning in the early 1980s, is to find
that a software transaction involves the sale of a tangible item, and
is therefore subject to state sales, use and gross receipts taxes.

182. See supra note 124 and accompanying text.
183. See Wal-Mart Stores, Inc. v. City of Mobile, 696 So.2d 290, 291 (Ala. 1996)
(software is tangible personal property and thus subject to state's gross receipts tax);
S. Cent. Bell Tel. Co. v. Barthelemy, 643 So.2d 1240, 1246 (La. 1994) (software is
tangible personal property subject to sales and use tax); Int'l Bus. Machs. Corp. v. Dir.
of Revenue, 765 S.W.2d 611, 613-14 (Mo. 1989) (en banc) (software is subject to sales
tax); Linda A. Sharp, Annotation, Computer Software or Printout Transactions as
Third, retailers charge sales tax on transactions involving software. Fourth, both an Organisation for Economic Co-operation and Development ("OECD") advisory group, and the U.S. Treasury Department, have determined that income arising from a software transaction should generally be characterized as business income, rather than as royalties paid for a license of intellectual property, for tax purposes. 184

The implications of a rule allowing the ownership of a material object to depend on a provision in a license agreement between the owner of the copyrighted work contained in that object and the acquirer of the object are startling. What software publishers can do, so can publishers of any other copyrighted content; any copyright owner could circumvent the first-sale doctrine, defeating the effect of section 109(a), simply by distributing its goods subject to a license agreement stating that the product is licensed, not sold.

Consider books. Some authors and book publishers are upset with Amazon.com, and other online book sellers, for making used books easy to buy and sell. There has always been a secondary market in books. Students whenever possible sell their textbooks back to their university bookstore, allowing next year's students to buy those books used at a significant savings. Many people are accustomed to buying and selling books at garage sales and flea markets, donating books to the local library, and giving their children's books to parents of younger children. But in 2000, Amazon.com started making used books available online. The web page on which Amazon.com offers a new copy of the book sometimes also presents a link offering one or more used versions of the same book. Amazon.com does not own the used books, but acts as a broker, listing books that are owned by individual sellers. When a sale is made, the seller receives the proceeds, less a commission that is paid to Amazon.com. 185

The Author's Guild, representing its 8,000 member authors, and the Association of American Publishers, representing 278 member publishers, took umbrage. They addressed a joint letter to Amazon.com, explaining that the making of a market in used books

Subject to State Sales or Use Tax, 36 A.L.R.5TH 133 (1996).


185. Amazon.com's used-goods brokerage program now extends to many other types of goods, including information goods such as music on CDs, movies on DVD or videotape, and computer video games, as well as non-information goods such as electronics and tools. In addition, other online sellers, including Barnes & Noble.com and Half.com, have joined Amazon.com in offering used books.
is detrimental to authors and publishers, cutting into their sales of new books. In this letter, they asked Amazon.com to modify its used-book program, to protect the interests of several constituencies:

For the sake of authors, publishers, readers and Amazon, a compromise must be found that will not discourage writers from writing or consumers from buying new books. We believe the compromise is simple and straightforward: restrict the blue-box link [that appears directly adjacent to the new-book price] to out-of-print and collectible books and list all used book offerings after all new versions of a title are listed.

Rebuffed by Amazon.com, in April 2002 the Authors Guild recommended to its members that they remove any links from their websites that point to the Amazon.com site, and link instead to other online booksellers.

Instead of getting mad, book publishers could take a page out of the software publishers’ book, and declare that their goods are only licensed, not sold. This could be done by placing the license agreement on top of the book, covering the book in shrinkwrap, and placing a label on the outside stating that important terms are enclosed. The purchaser of the book acquires it subject to the terms of the license agreement. The agreement licenses the acquirer to read the book as many times as she likes, and to distribute it to members of her immediate family. (Just for fun, the agreement might prohibit


187. Id.

188. Jeff Bezos, the founder of Amazon.com, responded by firing off an e-mail to Amazon.com’s cadre of used-book sellers, asking them to send an e-mail to the Authors Guild in support of Amazon.com’s program. Letter from Jeff Bezos, Founder and C.E.O. of Amazon.com, to all Amazon used book resellers (Apr. 15, 2000), available at http://www.oreillynet.com/pub/wlg/1291.


191. See Hill v. Gateway 2000, Inc., 105 F.3d 1147 (7th Cir. 1997) (holding that an agreement enclosed in the box in which a computer was shipped created an enforceable contract between the vendor and the purchaser when the latter failed to return the computer within thirty days of purchase). For an early example of an in-the-shipping-box agreement, see Waltham Watch Co. v. Keene, 202 F. 225, 227 (S.D.N.Y. 1913) (watch movements shipped in boxes, each in an inner box containing a “Contract Notice” specifying terms and conditions).
her from reading the ending before slogging through the entire book, or require the publisher's written permission before publication of any review of the book.) Under the theory that software publishers urge upon the courts, since the acquirer is not the owner of the book, but only a licensee, the publisher would not have exhausted its first-sale right. Therefore, any distribution of the book to the public, such as by offering it at a garage sale or on Amazon.com, would infringe the publisher's distribution right. What the Copyright Office (erroneously) declares to be true for CD-ROMs—"Libraries are not able to use CD-ROMs donated to them because the donors are not owners of the CD-ROMs, only licensees, and thus lack the legal authority to transfer the copy of the work they possess"—would become equally true for books.

Or consider music CDs. Some people buy used CDs because the new ones are so expensive. Others, such as Candice Dylhoff of Wheaton, Illinois, do so for spite: "As a musician and music teacher, I eagerly await the demise of the recording industry as we know it. And I am hastening the arrival of that day in a way that's perfectly legal—I buy only used CDs." If software publishers can convince courts that their products are only licensed, never sold, the record companies can ruin Ms. Dylhoff's day by doing the same. Music CDs are already sealed in shrinkwrap. All that is lacking is a license agreement.

In sum, software copies that are distributed through a typical retail chain of distribution are invariably sold, with the end user becoming the "owner" of the copy for purposes of sections 109(a) and 117(a) of the Copyright Act. A declaration in the license agreement accompanying the copy, to the effect that the software is licensed, not sold, does not change this result.

b. Limitation of a distributor's authority to dispose of software copies

Rather than inserting language in its license agreements, a software publisher may seek to extend its control over copies of the software it has sold by placing restrictions on the authority of its distributors to convey ownership of the software copies. Based on the principles set forth above, this strategy will not prevent the end user

192. SECTION 104 REPORT, supra note 85, at 105.
194. WIRED, Apr. 2003, at 25 (letters to the editor).
195. Record companies have in fact attempted to limit sales of used music CDs by withholding co-op advertising payments from retailers that offer both new and used products. See Daun, supra note 189, at 253.
from gaining ownership of the software copies.

First, a mere statement, in an agreement between any two participants in the chain of distribution from the software publisher to the end user, that the seller retains ownership of the copy is effective only to create a security interest, and does not prevent title from passing.\textsuperscript{196} Second, if the software publisher actually does retain ownership of the copies, by constituting the distributors as its selling agents, the requirements of section 2-403(2) will typically be satisfied, with the consequence that the end user obtains title to the copy.\textsuperscript{197} The publisher entrusts the copies to the first-level distributor, by delivering them to the distributor and acquiescing in the distributor's continued possession of them. The first-level distributor is, by hypothesis, a merchant that deals in "goods of that kind," i.e. software. The second-level distributor that acquires the software copies from the first-level distributor is ordinarily a "buyer in ordinary course of business," who does not have knowledge that the transaction violates the rights of others in the software copy. Iterations of the same analysis apply as the software travels through additional levels of distributors before reaching the retailer. Even if title to the software copies is successfully withheld from the retailer, it is hard to see how an end user, who purchases the shrinkwrapped box as she would any other merchandise in the store, who pays sales tax on the transaction, and who receives a receipt stating, "All sales are final," could have actual or constructive knowledge\textsuperscript{198} that the retailer was not entitled to make the sale.\textsuperscript{199} The end user is accordingly a buyer in ordinary course of business, and is the "owner" of the software copies.

Third, if the retailer owns the software copies, and sells them to the end user in violation of its distribution agreement with the

\textsuperscript{196} See supra note 125 and accompanying text.

\textsuperscript{197} See supra notes 126-30 and accompanying text.

\textsuperscript{198} See James L. Padgett, Note, \textit{Uniform Commercial Code Section 2-403(2): The Authority of a Bailee to Convey Title}, 21 U. FLA. L. REV. 241, 250 (1968) (suggesting that constructive knowledge of the dealer's lack of authority to sell should defeat the purchaser's claim).

\textsuperscript{199} What if the software publisher sells the software copies to its distributors, subject to a restriction that they may only be resold to qualified buyers (such as educational users) or in connection with the sale of computer hardware: would a subsequent purchaser's knowledge of the restriction defeat the availability of an argument, based on section 2-403(2), that the subsequent purchaser takes the copy free of the restriction? It would seem not. The good-faith criterion requires that the purchaser not have knowledge that sale of the good violates the rights of another "in the goods." U.C.C. § 1-201(b)(9) (2004). In this scenario, sale of "the goods," namely the material object on which the software is distributed, would not violate any rights, although use of the software program might violate the rights of the copyright owner.
publisher, the retailer may have breached its contract with the publisher, and may have infringed the publisher's public distribution right, but that circumstance will not prevent the acquirer from gaining ownership of the copies.200

c. Impressing a use restriction on the material object holding the software

As discussed above, use restrictions that run with chattels are generally unenforceable under the common law, and are directly in conflict with the first-sale doctrine.201 They are no more valid if deployed in a retail chain of distribution than in any other context.

2. Direct distribution from software publisher to end user

What if the software publisher does not distribute its products through a typical retail chain of distribution, but rather supplies them directly to end users? Many publishers of mass-marketed consumer software offer their products directly to end users via their website or by mail. Some will ship the product on CD-ROM disks;202 others allow the software to be downloaded.203 Direct contact between the software publisher and the customer also sometimes occurs when the customer is a business. The vendor may provide software that has been customized to fit the needs of the business, or it may supply canned software with a customized license agreement.204

Software acquired via download. In the case of downloaded software, the acquirer is perforce the owner of a copy of the software. The software must be downloaded onto some material storage medium, typically the hard drive of the receiving computer. The purchaser normally owns that material object.205 By hypothesis, this copy of the software has been made with the authorization of the

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200. See supra notes 142-51 and accompanying text.
201. See supra notes 158-61 and accompanying text.
204. Direct distribution of software in conjunction with the hardware on which it runs is considered infra in Part I(C)(3).
205. The storage medium might be owned by somebody other than the downloader, as, for example, if it consists of the hard drive of a publicly accessible computer, or one belonging to her employer, or a removable medium (such as a CD-R disk or a flash drive) that the downloader has borrowed. In that case, it is the owner of the medium, rather than the downloader, who is freed from the copyright owner's distribution right with respect to that copy.

What if the software publisher were to declare in the license agreement accompanying the download that, as part of the consideration for the transaction, the publisher acquires ownership of the CD-R, or the hard drive, to which the software is downloaded? A court should give no weight to such a declaration, unless it is backed up by economic realities evidencing true transfer of ownership.
copyright owner. Therefore, the purchaser is the "owner" of the copy for purposes of sections 109(a) and 117(a), and needs no authorization from the publisher to load the software into her computer's RAM, or to dispose of the copy by sale or gift. If the software is downloaded to a hard drive, the first-sale doctrine allows the owner to dispose of the copy only by transferring the entire computer, which may happen if the owner sells her computer without first deleting the software from the hard drive, or by removing and transferring the hard drive, which will occur rarely in practice. If the software is downloaded directly to a removable medium, such as a floppy diskette, CD-R disk, flash memory, or Zip drive, gift or sale of the copy becomes more feasible.

For the reasons discussed above, a statement in the license agreement accompanying the download, declaring that the software publisher retains ownership of the "software," has no bearing on ownership of the copy. Because the transaction occurs directly between the software publisher and the acquirer, there is no question of contractual limitations on distributors. Nor is there any physical object to which the publisher might attach a notice seeking to impress a running servitude. Therefore, none of the standard

206. SECTION 104 REPORT, supra note 85, at 78 ("[A] lawfully made tangible copy of a digitally downloaded work, such as an image file downloaded directly to a floppy disk, is subject to section 109."); U.S. DEPT OF COMMERCE, NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION, REPORT TO CONGRESS: STUDY EXAMINING 17 U.S.C. SECTIONS 109 AND 117 PURSUANT TO SECTION 104 OF THE DIGITAL MILLENNIUM COPYRIGHT ACT (Mar. 2001), at Part IV (reaching a similar conclusion).

For the first-sale doctrine to apply, there is no requirement that the copyright owner physically transfer the copy or phonorecord. See Bourne v. Walt Disney Co., 68 F.3d 621, 631-32 (2d Cir. 1995) (where synchronization license permitted licensee to produce copies of videocassettes containing copyright owner's musical works, first sale occurred, despite the absence of any transfer of copies) (decided under the 1909 Act); cf. 17 U.S.C. § 115(a), (d) (2000) (when a sound recording is transmitted across a digital network, and is fixed in some material object at the receiving end, the resulting object is treated like any other phonorecord for purposes of a compulsory license provision).

207. See Reese, supra note 43, at 612-13 (observing that transferring a hard drive containing downloaded music files is "far less convenient than selling a used CD"). Some have argued that the Copyright Act provides, or should provide, for a "digital first-sale right." Such a right would limit a copyright owner's distribution right by permitting the owner of a copy of the copyrighted work in a digital format to transfer the work to another by making a new copy and deleting her own copy of the work, without any physical transfer of the copy. Arguments for and against the establishment of such a right are canvassed in SECTION 104 REPORT, supra note 85, at 78-101. Bills that would have amended the Copyright Act to implement a digital first-sale right were introduced in 1997, and again in 2003, but were not enacted. See H.R. 3048, 105th Cong. § 4 (1997); H.R. 1066, 108th Cong. § 4 (2003).

208. See supra Part I(B)(1)(b).
strategies that software publishers employ can prevent the acquirer of the software from becoming the owner of a copy of it.

*Software acquired through shipment of a physical medium.* If the software is purchased directly from the publisher and is shipped on CD-ROM or some other physical medium, the analysis is different. The software publisher, as vendor, can seek to structure the transaction as it likes through the accompanying contract terms. Thus, the software publisher might state in the contract governing the transaction that the CD-ROM holding the software—that is, the material object, not the computer program—is not sold to the acquirer, but is leased. The publisher would rely on that statement as preventing the acquirer from gaining any rights as “owner” under sections 109(a) or 117(a). The direct-to-consumer sale approach avoids the problem the software publisher faces when it distributes products through normal retail channels, namely that once it sells the material objects embodying the software product to its distributors, it loses control over title to those objects.

For this argument to be successful, however, the software publisher would have to do more than merely declare that the disk is leased: it would have to structure the transaction so that it actually is a lease. That is because the legal import of a commercial transaction depends not on the label attached to the transaction, but rather on the economic realities underlying it.209

209. *See* David A. Rice, Licensing the Use of Computer Program Copies and the Copyright Act First Sale Doctrine, 30 Jurimetrics J. 157, 169 (1990) (“When faced with the unconventional use of contract labels, the courts closely examine realities to determine if a transfer constitutes (disguised or otherwise) a sale.”) (citation omitted); Samuelson, *supra* note 83, at 189 (“There is precedent in copyright caselaw for disregarding the manufacturer’s characterization of a transaction, looking through the form of a transaction to its substance to find a sale when the manufacturer asserts there is only a license.”).

Courts apply the economic realities approach in a variety of contexts. *See, e.g.,* Neb. Dept. of Revenue v. Loewenstein, 513 U.S. 123, 134 (1994) (a transaction that parties characterize as a “sale-and-leaseback” of federal debt securities, in order to gain tax advantages, is held instead to be a loan of cash from the “purchaser” to the “seller” of the securities, based on the Court’s evaluation of “the substance and economic realities of the transaction” (quoting Frank Lyon Co. v. United States, 435 U.S. 561, 582 (1978))); United Housing Found., Inc. v. Forman, 421 U.S. 837, 848-49 (1975) (an ownership interest in a real-estate cooperative that the parties designate as “stock” is not a “security” for purposes of the federal Securities Acts, even though the Acts’ definition of “security” includes any “stock,” since “Congress intended the application of these statutes to turn on the economic realities underlying a transaction, and not on the name appended thereto”); Dr. Miles Med. Co. v. John D. Park & Sons Co., 164 F. 803, 804-05 (6th Cir. 1908) (party designated in contract as a “consignee” of goods acquired from other party is in fact owner of the goods, based upon “the meaning and intent of the instrument as a whole”), aff’d, 220 U.S. 373 (1911); *cf.* Frank Lyon Co. v. United States, 435 U.S. 561, 573-76 (1978) (relying on “the substance and economic realities” of a transaction to uphold the parties’ characterization of the transaction as a
The principle is well illustrated in a cohort of cases addressing the question whether a transaction involving a transfer of goods constitutes a lease of the goods, with the transferor retaining title, or a sale of the goods, with the transferor retaining only a security interest. Under the UCC, if a transaction is a sale, then a purported retention of title is ineffective, except to create a security interest. The UCC directs that a court should ascertain the legal status of such a transaction based on "the facts of each case." Factors supporting a determination that what the parties call a lease is actually a sale with retained security interest include (1) that the lease term is "equal to or greater than the remaining economic life of the goods;" and (2) that "the lessee has an option to become the owner of the goods for . . . nominal additional consideration." The parties’ characterization of the transaction is not one of the relevant facts. Numerous cases have applied this approach and determined that an arrangement that the parties characterize as a lease is actually a sale. "sale-and-leaseback" of a building, against the government's argument that it should be treated as a financing transaction).

210. See U.C.C. § 2-401(1) (2004) ("Any retention or reservation by the seller of the title (property) in goods shipped or delivered to the buyer is limited in effect to a reservation of a security interest."); Hong Kong & Shanghai Banking Corp. v. HFH USA Corp., 805 F. Supp. 133, 141 (W.D.N.Y. 1992). One purpose of this provision is to implement the UCC’s policy against a “hidden-title subterfuge” that defeats the expectations of creditors. See Kinetics Tech. Int'l Corp. v. Fourth Nat'l Bank, 705 F.2d 396, 399 (10th Cir. 1983).

211. U.C.C. § 1-203(a) ("Whether a transaction in the form of a lease creates a lease or security interest is determined by the facts of each case.").

212. U.C.C. § 1-203(b)(1) - (4). This provision is quoted in note 68, supra.

213. See K-B Trucking Co. v. Riss Int'l Corp., 763 F.2d 1148, 1164 (10th Cir. 1985) (transaction denominated a lease with purchase option is in reality a sale, making the warranty provisions of UCC Article 2 applicable); United States ex rel. Eddies Sales and Leasing, Inc. v. Fed. Ins. Co., 634 F.2d 1050, 1052 (10th Cir. 1980) ("The parties attempted to transform a printed 'Retail Installment Contract—Security Agreement' form into a lease agreement by changing the form title to 'Installment Lease—Security Agreement' and by typing the words 'lease', 'lessee', and 'lessor' over some of the printed words 'purchase', 'purchaser', and 'seller.' Despite the interlineation of leasing terminology, the parties' agreement provides for rights and duties more commonly found in a contract of sale. . . . Most significantly, there was an oral understanding that the equipment was to be owned by the 'lessee' at the termination of the lease with no more than the nominal payment of $1.00."); Percival Constr. Co. v. Miller & Miller Auctioneers, Inc., 532 F.2d 166, 171 (10th Cir. 1976) ("Although denominated a 'lease,' the lower court correctly found the terms of that agreement to be such that title actually passed to the 'lessee' and a security interest was created in the "lessor."); Atlas Indus., Inc. v. Nat'l Cash Register Co., 531 P.2d 41, 43-44, 47 (Kan. 1975) (where accounting equipment was shipped directly from the manufacturer to the end user, the "leasing company" did not select or inspect the equipment, the monthly payments under the "lease" were calculated to return to the leasing company the purchase price plus sales tax and interest, and the equipment need not be returned to the "leasing"
Several courts have applied the economic realities approach to software transactions, concluding that what the software publisher characterizes as a license is in fact a sale. For example, in *Microsoft Corp. v. DAK Industries, Inc.* 214 Microsoft claimed a priority in bankruptcy involving a seller of computer hardware to which Microsoft had supplied a copy of Microsoft Word for Windows software, pursuant to what Microsoft characterized as a "license agreement" that allowed DAK to load copies of the software onto the hardware units that it sold to end users. 215 The court denied Microsoft's claim, holding that the transaction "is best characterized as a lump sum sale of software units to DAK, rather than a grant of permission to use an intellectual property." 216 In reaching this conclusion, the court pointedly rejected Microsoft's argument that its characterization of the transaction as a "license" is controlling: "[b]ecause we look to the economic realities of the agreement, the fact that the agreement labels itself a 'license' and calls the payments 'royalties,' both terms that arguably imply periodic payment for the use rather than sale of technology, does not control our analysis." 217

Another example of this approach may be seen in *SoftMan Products Co. v. Adobe Systems Inc.*, 218 in which the court held, based on the economic realities of a software transaction, that a software publisher's distribution of its products, though denominated a "license," results in transfer of title in the disks containing the software to each party in the chain of distribution. 219 The court noted it was "well-settled that in determining whether a transaction is a sale, a lease, or a license, courts look to the economic realities of the exchange," and found "that the circumstances surrounding the transaction strongly suggest[] that the transaction is in fact a sale rather than a license." 220 Accordingly, the court held that "SoftMan is

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214. 66 F.3d 1091 (9th Cir. 1995).
215. *Id.* at 1092-93.
216. *Id.* at 1095.
217. *Id.* at 1095 n.2.
219. *Id.* at 1085-87.
220. *Id.* at 1084-85.
an ‘owner’ of the copy and is entitled to the use and enjoyment of the software, with the rights that are consistent with copyright law.”

Courts have therefore recognized that the mere fact the parties characterize a transaction as a “license” does not make it one: based on the economic realities, the transaction may actually be a sale. A court confronted with a software transaction that the parties characterize as a “lease” should follow the same approach, applying the criteria set out in Uniform Commercial Code section 1-203.

Accordingly, if a software publisher ships its product on a physical medium directly to the end user, and seeks to avoid the applicability of sections 109(a) and 117(a) by structuring the transaction as a lease, the terms would have to include a requirement that the lessee return the copies of the software (i.e., the floppy diskettes or CD-ROMs) to the lessor at the end of the lease term, and before the economic life of the copy has expired. For reasons discussed more fully below, this procedure would be cumbersome to implement in the context of mass-marketed software, and would likely meet market resistance.

3. Sale or lease of a hardware/software combination

Another paradigm for distributing software is for the publisher to provide the software as part of a package including the computer hardware on which it runs. This might occur when the manufacturer of a proprietary hardware system (which might be a computer, or some other equipment with embedded software) also supplies the

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221. *Id.* at 1089. See also *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 268-70 (5th Cir. 1988) (holding that the acquirer of a software copy is entitled to the privileges granted by section 117, despite license agreement’s characterization of the transaction as a license); *Applied Info. Mgmt., Inc. v. Icart*, 976 F. Supp. 149, 153 (E.D.N.Y. 1997) (“Determination of whether an agreement transfers ownership of a copy of a computer program requires interpretation of the contract between the parties.”); *Rice*, *supra* note 209, at 172-73 (proposing a set of factors to consider in determining whether the acquirer of a software copy is the owner of the copy).

For an unusual case in which the software publisher argued that the acquirers of its software became the owners of the copies on which it was distributed, see *Quill Corp. v. North Dakota*, 504 U.S. 298, 315 n.8 (1992) (adopting without discussion the state court’s characterization of the transaction as one in which the software publisher retained title to the copies, but rejecting such ownership as a basis for finding the publisher had a physical presence in the state, in view of its de minimis extent).

In the patent context, see *Straus v. Victor Talking Machine Co.*, 243 U.S. 490, 500-01 (1917) (disregarding manufacturer’s characterization of a transaction as conveying only a “license” to use a patented machine, where the economic realities indicate it is a sale).

222. *See infra* notes 246-49 and accompanying text.

223. An automobile is such a piece of equipment: a modern automobile may contain a million lines of software code. See Philip Koopman & Cem Kaner, *The Problem of Embedded Software in UCITA and Drafts of Revised Article 2*, 43 U.C.C. BULL.
proprietary software that runs on it. It also commonly occurs in the mass-market context when a software publisher authorizes a computer manufacturer to distribute software pre-installed on the hard drives of the computers it sells.

Under this distribution scenario, the software copy is the hardware itself. Ownership of the software copy will therefore depend on whether the hardware is sold or leased. In the case of mass-marketed personal computers, the hardware is almost invariably sold, not leased. Since the purchaser is therefore the owner of the software copy, she is free, by virtue of the first-sale doctrine, to sell her computer on the secondary market, donate it to a school, or lend it to a friend, without implicating the public distribution right of the copyright owner of any of the software pre-installed on the hard drive. However, she may not lease or lend the computer for commercial advantage.

RELEASE 1, at 5 (Feb. 2001). Since an automobile is thus a material object in which a computer program is embodied, it constitutes a software copy. The general rule established by the Computer Software Rental Amendments Act of 1990 would seem to imply that the owner of an automobile remains subject to the copyright owner's public distribution right, and may not rent the automobile without authorization. See 17 U.S.C. § 109(b)(1)(A) (2000) (forbidding unauthorized rental of a copy of a computer program). However, a statutory exception for "a computer program which is embodied in a machine or product and which cannot be copied during the ordinary operation or use of the machine or product" allows the owner of an automobile to rent it without the authorization of the copyright owner of the embedded code. Id. § 109(b)(1)(B)(i).

224. The manufacturer of a computer might in principle sell the computer, excepting the hard drive, which it would lease. In practice, a requirement that the computer buyer remove the hard drive at some point in time and return it to the manufacturer is likely to meet significant market resistance.

225. As owner of the copy, she is also entitled to load the software into the random access memory of her computer, and to authorize others to do so. See 17 U.S.C. § 117. Thus, the friend to whom she lends the computer will not infringe the software publisher's exclusive right to make copies of the software, id. § 106(1), when he makes a copy in the computer's RAM by running the program.

226. Id. §§ 109(a), 109(b)(1)(A). The analysis is slightly different for software that is not pre-installed; that is, software that she acquires on a separate medium, such as a floppy diskette or CD-ROM, and installs on the computer. Section 117 clearly privileges the owner of a copy of a computer program to load it into the random access memory of her computer, since that is an "essential step in the utilization of the computer program." Id. § 117(a)(1). Though there does not appear to be any solid authority on point, it would seem that installing a program on one's hard drive in order to use it would also qualify as an "essential step"; certainly that is true of many types of software, such as software that is distributed on multiple diskettes, operating system software, and most Windows software, that can only be used by installing it on a hard drive. See ProCD, Inc. v. Zeidenberg, 908 F. Supp. 640, 649 (W.D. Wis. 1996) ("RAM copies may be essential copies of a computer program but hard drive copies are just as essential for the effective use of today's computer software."), rev'd on other grounds, 86 F.3d 1447 (7th Cir. 1996); Novell, Inc. v. Network Trade Ctr., Inc., 25 F. Supp. 2d 1218, 1229 (D. Utah 1997) ("Since owners, without restriction, may copy software onto the hard drive of their computers or into temporary memory, copyright
In other contexts, particularly those involving proprietary systems that are provided to business customers, the hardware may be either sold or leased. If the hardware is sold, the purchaser owns a copy of the software in the form of the hardware itself, and may avail itself of the privileges provided by sections 109(a) and 117(a). If it is leased, the lessee is not an owner of the copy, and those privileges therefore do not apply.

A case that should have been resolved on this ground, but was not, is MAI Systems Corp. v. Peak Computer, Inc. The court held that defendant Peak, an independent computer service provider, infringed the reproduction right of MAI, the copyright owner of software, when its technician turned on a computer on which the software was installed, loading the software into the computer's random access memory. The court found that the section 117(a) privilege was unavailable: "[s]ince MAI licensed its software, the Peak customers do not qualify as 'owners' of the software and are not eligible for protection under § 117." However, MAI supplied the software as part of a hardware/software system, and the district court vacated in part due to parties' settlement, 187 F.R.D. 657 (D. Utah 1999); Robert A. Kreiss, Comment, Section 117 of the Copyright Act, 1991 B.Y.U. L. REV. 1497, 1523-25 (1991). Having made such a copy on the hard drive, the computer user is subject to section 117(b), which provides that such a copy "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 program." Thus, the user may sell her computer, with software installed on the hard drive, only if she also sells the installation diskettes and any archival copies she made from them. Since the user will, as I argue, almost invariably be the owner of the diskettes, she is free to sell them without implicating the software publisher's public distribution right.

Some hardware/software suppliers have asserted that a subsequent purchaser of the hardware must purchase its own license, for which they might demand $15,000, to use the software installed on it—much to the dismay of those who pick up used hardware at a bargain price, only to discover that the vendor refuses to enter a maintenance agreement unless the software is relicensed. See Ed Foster, The Hidden Cost of Hardware, INFOWORLD, Aug. 8, 2003, available at www.infoworld.com/article/03/08/08/31FEfair_l.html.

227. See Summit Tech., Inc. v. High-Line Med. Instruments Co., 922 F. Supp. 299, 315-16 (C.D. Cal. 1996) (purchaser of laser eye-surgery equipment, with embedded software, was owner of the copy of the software, i.e. the equipment itself, and therefore was privileged by section 117(a) to turn on the machine and load the software into RAM); Synergistic Techs., Inc. v. IDB Mobile Communications, Inc., 871 F. Supp. 24, 29 (D.D.C. 1994) (company that purchased a system, consisting of hardware and software, for interacting with communications satellites is the owner of a copy of the software for purposes of section 117(a)).

228. 991 F.2d 511, 511 (9th Cir. 1993).

229. Id. at 519.

230. Id. at 518 n.5.
court found that MAI sold the hardware to its customers.\textsuperscript{231} As owner of the hardware on which the software was installed, the customer was owner of a copy of the software. As such, the customer was entitled under section 117(a) to authorize Peak's service technician to make a copy of the software in RAM, as an "essential step" in using the program.\textsuperscript{232}

The Federal Circuit made the same mistake in \textit{DSC Communications Corp. v. Pulse Communications, Inc.}\textsuperscript{233} DSC provided its telephone company customers ("RBOCs") with equipment for routing telephone calls, consisting of hardware and software components.\textsuperscript{234} The infringement issue turned on whether the RBOCs were owners of the copies of that software, and therefore entitled to the prerogatives granted by section 117(a).\textsuperscript{235} To resolve the ownership issue, the court looked at the terms of the license agreements governing the software component of the transaction. It focused in particular on a provision stating that "[a]ll rights, title and interest in the Software are and shall remain with seller, subject, however, to a license to Buyer to use the Software," and on other provisions that, as it found, "severely limit the rights of the RBOCs with respect to the . . . software in ways that are inconsistent with the rights normally enjoyed by owners of copies of software."\textsuperscript{236} Based on these contractual limitations on the RBOCs' authority to use the

\begin{itemize}
\item \textsuperscript{231} The district court's findings of fact state:
\begin{itemize}
\item 5. MAI is a company which previously manufactured and sold a line of minicomputers . . . . Thousands of these machines were sold and many remain in active use.
\item 6. MAI continues to provide supplies and services to the purchasers of these machines . . . .
\end{itemize}
\item \textsuperscript{232} MAI's license agreement forbade the customer to authorize a non-MAI repair person to access the software:
\begin{itemize}
\item 12. MAI's license agreements for its operating system and diagnostic software restrict the use of the software. A sample operating software license provides, regarding access, that "customer may give access to the initial software only to the following: (i) bona fide employees of customers who agree to be bound by these terms and conditions; (ii) representatives of MAI; and (iii) others authorized by MAI in writing."
\end{itemize}
\textit{Id.} at *2. But this statement cannot overcome section 117 and render the customer's authorization of a Peak repair person to load the software into RAM a copyright infringement. At most the license language could give rise to a breach-of-contract action; but as discussed below, \textit{see infra} Part II, there is a good argument that the contract claim would be preempted.
\item \textsuperscript{233} 170 F.3d 1354 (Fed. Cir. 1999).
\item \textsuperscript{234} \textit{Id.} at 1359.
\item \textsuperscript{235} \textit{Id.} at 1359-60.
\item \textsuperscript{236} \textit{Id.} at 1361.
computer program, the court concluded that the RBOCs were not owners of the software copies.\textsuperscript{237}

In this analysis, the court confused the copyrighted work of authorship, a computer program, with the material object on which it is distributed. The material object was the nonvolatile storage medium that was part of the hardware component of what DSC supplied to the RBOCs. The agreements governing DSC's provision of the hardware/software system specifically provided that the RBOCs acquired title to the hardware.\textsuperscript{238} Therefore, the RBOCs perforce acquired title to the only "copy" of the software at issue in the case.\textsuperscript{239}

The court's confusion is further evidenced by the fact that it reached the opposite conclusion with respect to other copies of the software that co-defendant Pulse purchased. As to these copies, the court explained: "[Pulse] obtained its Litespan systems on the open market. It was thus an owner of those systems and the associated software."\textsuperscript{240} But Pulse's purchase of the systems "on the open market" does not distinguish its ownership status from that of the RBOCs. Both Pulse and the RBOCs were owners of the hardware, which is the "copy"; and both were licensees, not owners, of the software.

\begin{itemize}
\item \textsuperscript{237} Id. at 1362.
\item \textsuperscript{238} "Two of the agreements also contain clauses that provide for the passage of title to all the material transferred from DSC to the RBOCs, except for the software." Id. at 1361.
\item \textsuperscript{239} On nearly identical facts, the Fifth Circuit made nearly the identical error. See Alcatel USA, Inc. v. DGI Techs., Inc., 166 F.3d 772 (5th Cir. 1999).
\item \textsuperscript{240} Again on similar facts, another court held that the possessor of the telephone switching equipment was the owner of the copies of the software. Telecomm Technical Servs., Inc. v. Siemens Rolm Communications, Inc., 66 F. Supp. 2d 1306, 1325 (N.D. Ga. 1998). The court relied on the facts that the transaction in which the switches were acquired involved a single payment, and that the "license is granted for the life of the system." Id. While the result is correct, the reasoning is faulty. As in \textit{DSC Communications Corp.}, the possessor of the switch was indubitably the owner of the hardware component of the switch. Since the switch was the sole instantiation of the software, the hardware owner was the owner of the software copy. The duration of the license, and the payment plan, are irrelevant.
\item Yet another case in which the court missed the point in analyzing ownership in the context of a hardware/software system is \textit{Applied Information Management, Inc. v. lecart}, 976 F. Supp. 149 (E.D.N.Y. 1997). Plaintiff provided defendant with a "custom computer system" consisting of both hardware and software. Id. at 151. Plaintiff acknowledged that it sold the hardware to defendant, but argued that defendant was not owner of the software for purposes of section 117 because it did not sell but only licensed the software. Id. at 154. The court held that there was a triable issue of fact as to whether defendant owned a copy of the software. Id. at 155. However, since defendant was concededly owner of the computer, and the software was installed on the computer, defendant was owner of the copy: namely, the computer itself.
\end{itemize}

\textsuperscript{240} \textit{DSC Communications Corp.}, 170 F.3d at 1363.
D. Two methods that software publishers may use effectively to limit end users' prerogatives with respect to software copies

As the discussion above demonstrates, in the most common types of software transactions the end user typically becomes the owner of a copy of the software, and is therefore entitled to the benefits of the first-sale doctrine, section 109(a) of the Copyright Act, and the special rules applying to software copies, section 117(a) of that Act. This is so, as a general matter, even if the software publisher employs any of three strategies: (1) a provision in the license agreement accompanying the transaction declaring that the publisher retains title to the software, or that the software is licensed, not sold; (2) a provision in an agreement with a distributor that authorizes the distributor to supply copies of the software only to specified categories of buyers, or under specified circumstances; or (3) a notice attached to the software copy that purports to bind any possessor of it.

This is not to say, however, that it is impossible for a software publisher to allow others to use its products while preventing the user from obtaining ownership of the material object on which the software is distributed. In fact, a software publisher may avail itself of at least two methods of making its software available without transferring ownership of any copy of the software, thereby avoiding entering into a first sale that cuts off its distribution right. Those methods are (1) conveying to the acquirer only temporary possession of the copy, through a lease or other bailment; and (2) conveying nothing but access to the software as it resides on the publisher's networked servers.

1. The software publisher may bail, rather than sell, the software copies

In a bailment, the owner of the bailed property retains ownership of it, while the recipient acquires only temporary rightful possession. The most common form of bailment in commercial settings is the lease. As discussed above, a lease differs from a

241. Bailments of information goods other than leases are also possible. In Picker International Corp. v. Imaging Equipment Services, Inc., 931 F. Supp. 18 (D. Mass. 1995), aff'd sub nom. Picker Int'l, Inc. v. Leavitt, 94 F.3d 640 (1st Cir. 1996), a manufacturer of computed tomography scanners sold its machines to end users, but did not sell them the service manuals. Id. at 24-25. Because the manuals were very bulky and were customized for each installation, the manufacturer stored a set of manuals at the site where each scanner was installed. Id. at 25. The court found that storage of the manuals at the customer's site was "a bailment rather than a transfer of ownership," id. at 40, making the customer's attempt to sell them an infringing distribution. Id. at 41. In Little, Brown & Co. v. American Paper Recycling Corp., 824 F. Supp. 11 (D. Mass. 1993), publisher Little, Brown & Co. ("Little, Brown") contracted
sale in that a lessee must relinquish possession of the good during its useful life, while a purchaser is entitled to perpetual possession. If the software publisher only leases and does not sell its software copies, an acquirer does not become the “owner” of the copy and is not entitled to the rights granted by sections 109(a) and 117(a).\(^{243}\)

What would a software publisher have to do to implement this approach? As the discussion above indicates,\(^ {244}\) it would not be sufficient merely to declare in the license agreement: “Copies of the software provided under this agreement are leased, not sold.” For there to be a true lease, the software publisher would have to require the end user to return possession of the software copies at the end of the lease term. If the acquirer gets to keep the CD-ROMs indefinitely, the transaction is a sale, regardless of how the transaction is characterized in the license agreement or elsewhere.\(^ {245}\)

with American Paper Recycling (“APR”) to dispose of unwanted copies of its books, by recycling them. Id. at 13. Instead of destroying the books itself, APR sold several batches of these books to another recycler, which sold them to another recycler, which sold them to a distributor, and ultimately, the books were sold intact as books rather than as waste paper. Id. at 14. The court found that Little, Brown had not sold the books to APR, but rather had bailed them, and had contracted with APR to perform the service of destroying them. Id. at 16-17. The court concluded that APR had both breached its contract with Little, Brown (to destroy the books and certify their destruction) and had infringed Little, Brown’s distribution right by selling the books. Id. at 17. See also Stein & Day Inc. v. Red Letter Books, Inc., 1984 Copyright L. Dec. (CCH) ¶ 25,728, at 19,243, 19,246 (S.D.N.Y. 1984) (default judgment) (finding that defendants who agreed to transport approximately 16,000 books to a paper recycler for destruction, but instead sold them, infringed the publisher’s distribution right, as no first sale had taken place).

242. See supra notes 68-72 and accompanying text.

243. This is provided explicitly in section 109(d): “[t]he privileges prescribed by subsections (a) and (c) do not, unless authorized by the copyright owner, extend to any person who has acquired possession of the copy or phonorecord from the copyright owner, by rental, lease, loan, or otherwise, without acquiring ownership of it.” 17 U.S.C. § 109(d).

The idea of leasing software is not a new one. In the 1960s, some software was leased, rather than sold, for the specific purpose of enabling the software publisher to retain title to the software copy, and thereby avoid application of the first-sale doctrine. See Luanne James Johnson, A View from the 1960s: How the Software Industry Began, 20 IEEE ANNALS HIST. COMPUTING 36, 38-39 (1998).

244. See supra notes 209-13 and accompanying text.

245. Movie studios have implemented such a system for the distribution of their films. In United States v. Wise, 550 F.2d 1180, 1183-84 (9th Cir. 1977), the court held that there had been no first sale of reels of movie film, where the agreements governing transfer of the films “reserved title to the films in the studios and required their return at the expiration of the license period.” See also United States v. Drebin, 557 F.2d 1316, 1326-28 (9th Cir. 1977) (holding that the first-sale doctrine did not apply because the agreements transferred only limited rights). These films were not distributed through normal retailing channels, but through a procedure involving rentals and loans. See Rice, supra note 209, at 167-69.
This rule creates several practical problems in the context of mass-marketed consumer software. First, it would be very costly for software publishers to attempt to round up all those floppies at the end of the lease term, and consumers who had their disks taken away would be none too pleased. On the other hand, if the lessor routinely ignored this requirement and failed to take action against lessees who did not return their copies, it is likely that courts would deem the transaction to be a sale.

Second, the lease agreement would have to specify the duration of the lease, and the duration would have to be something less than the expected useful life of the software.\textsuperscript{246} Again, consumer resistance is to be expected.\textsuperscript{247}

Third, a lease implemented through a stream of recurring payments would be expensive to administer—as IBM discovered when it first unbundled its software from its hardware in 1969.\textsuperscript{248}

Fourth, implementing a true leasing program using a chain of distribution would also require software publishers to redefine their relationships with retailers. Either the publisher, or the retailer, would have to be the lessor. If the former, the retailers would have to be set up as the publisher’s agents.\textsuperscript{249} If the latter, retailers would need permission from the publisher to engage in software rental. If the software publisher deals directly with the end user, this...

\textsuperscript{246} A license agreement specifying the license term as fifty years, such as in the form agreement in 2 Roditì, supra note 82, FM 8.10-4, at 8-318, would tend to establish that the transaction is a sale, not a lease.

\textsuperscript{247} Prior to enactment of the Computer Software Rental Amendments Act of 1990, the software rental industry, while extant, was not a thriving one. See Corsello, supra note 45, at 198-99. Although market conditions in the software industry have no doubt evolved significantly in the intervening years, this experience offers at least some support for the intuition that any attempt by software publishers to lease rather than sell their software would encounter resistance in the mass market.

\textsuperscript{248} IBM initially offered the software under a lease arrangement, requiring payment of monthly fees, but found this program infeasible due to high collection costs. It therefore adopted “paid-up licenses,” which required only a single payment. See Watts S. Humphrey, Software Unbundling: A Personal Perspective, 24 IEEE ANNALS HIST. COMPUTING 59, 60-61 (2002). IBM pursued an analogous strategy in connection with its computers, renting and not selling them, until in 1956 the U.S. Justice Department compelled IBM to change its practices. For an argument that the purpose of IBM’s rent-only strategy (as well as of similar strategies pursued by United Shoe Machinery and Xerox) was to eliminate the secondary market in its products, see Michael Waldman, Eliminating the Market for Secondhand Goods: An Alternative Explanation for Leasing, 40 J.L. & ECON. 61 (1997).

\textsuperscript{249} Some movie rental stores rent computer programs in the form of game cartridges. Rental of video games falls within a statutory exception from the prohibition against commercial rental of computer programs. See 17 U.S.C. § 109(b)(1)(B)(ii) (“This subsection does not apply to . . . a computer program embodied in or used in conjunction with a limited purpose computer that is designed for playing video games . . . .”).
complication would be avoided, at the cost to the publisher of developing an in-house direct distribution capability.

It should be recalled that the Computer Software Rental Amendments Act of 1990 was enacted in response to software publishers' unhappiness with the then-extant software rental market. In the absence of foolproof technology for preventing the unauthorized copying of software programs, or a substantial change in market conditions, software publishers are unlikely to consider it in their interest to implement a revival of the prior regime. In view of these considerations, leasing is unlikely to be an attractive option for software publishers in the context of mass-marketed consumer software.

Leasing software copies may be more feasible in the context of business-to-business transactions, where the dollar amount involved in the transaction justifies the additional costs of processing recurring payments and collecting the disks at the end of the lease term. Likewise, when the software publisher provides the software as part of a hardware/software combination (or licenses another to do so), and the system is customized for a business user, a true leasing arrangement may be feasible. If the hardware is leased, and the only copy of the software is the hardware itself (or the system includes copies on separate media that are included in the lease of the system), then the user does not become the owner of a copy.

2. The software publisher may refrain from providing any copies

In a networked environment, a software publisher can enable customers to use its software without providing any copies of that software. The person providing such a service, which may be either the software publisher or some other authorized party, is known as an "application service provider," or "ASP." The software application that does the job required by the customer resides on the ASP's computers; the customer never gets possession of, let alone title to, a copy of the software. The customer uses the software by shipping data across the network to the ASP's computers. The application residing on the ASP's computers performs some manipulation on that data, and ships its results across the network back to the customer.

A variety of business software applications are provided on the ASP model. For example, it is possible to set up an e-commerce website relying nearly entirely on software provided by an ASP. The ASP might offer software that hosts the website, operates the shopping cart, calculates shipping costs, enables downloads of digital goods, implements encryption, allows customers to use credit cards, tracks sales, generates coupons, manages inventory, and performs whatever software services are required. The e-commerce website
operator never sees a disk containing any of the software, and no software resides on the operator's computers. The software applications that perform all of these tasks reside on the ASP's servers. One ASP offers such a turnkey package for ninety-seven dollars a month, terminable at any time.250 Alternatively, the e-commerce operator may "[b]uy the software" for $5,995.251 For a startup e-commerce company, the ASP model of obtaining the software services it needs offers plenty of advantages. For the software publisher, it has the additional benefit of eliminating the possibility of a secondary market in the software.

The ASP model is nothing new. In the early days of computing, when computer hardware was expensive, companies provided computerized payroll-processing services on an outsourced basis, and operated computer installations under contract. Time sharing, in which multiple users access computing resources through dumb terminals attached to a mainframe, is another example.252 More recently, the ASP model has been heralded as the wave of the future, failed to live up to expectations, and has undergone something of a revival.253

The ASP model has not gained much traction with consumers, other than in a few limited niches. For example, millions of individuals use free Web-based e-mail services, like those provided by Hotmail.com, Lycos.com, and Yahoo.com. Instead of acquiring mail-reader software to install on their computers, the users of these services read their mail using the browser software that already resides on their computers. Many also use free online appointment calendars and phone directories. Publishers of tax-preparation software offer services on an ASP basis as an alternative to purchasing the product on disks and running it on one's own computer.254

The ASP model is a valuable approach for software publishers that wish to exercise more control over their intellectual property than is available when distributing their products on physical media.

251. Id. "Buy the software" is a phrase that presumably emanated from the marketing department, not from the legal department. The lawyers would no doubt make it clear that the software is licensed, not sold.
In some market segments it has proved highly successful, but its appeal is likely to be more limited in other areas. Probably few consumers would be willing to dial in to their Internet service provider and access their ASP just to use a word processor or a spreadsheet—unless perhaps they were receiving the service for free. Concerns with privacy limit the willingness of consumers to ship sensitive data across the network.\textsuperscript{255} It is therefore unlikely that the ASP model can ever fully replace the existing system of software distribution.

\textbf{E. Evaluation: Is current doctrine good public policy?}

As the above discussion demonstrates, existing law, properly interpreted, makes it exceedingly difficult for software publishers to restrict the secondary market in copies of their software products. The expedients of leasing the software copies, and of making their products available only on an ASP model, are available, but are not feasible in all market segments.

This outcome does not result from any natural features of the world, but is an artifact of the policy choices that have gone into the construction of the Copyright Act. It would be a simple matter to reverse the present rule, and ratify software publishers' attempts to extend their control over copies they have sold, by adding language to section 109(b) such as the following:

\begin{quote}
Nor may any person in possession of a particular copy of a computer program engage in any distribution of such copy to the public that is inconsistent with the terms of a license agreement between such person and the copyright owner of the distribution right with respect to that copy.
\end{quote}

This would effectively result in the elimination of the first-sale doctrine with respect to software copies. Would such a revision of the statutory scheme be desirable?

I will not here address the question whether the first-sale doctrine is in general well founded in policy. As the history of the doctrine indicates, the rule that a copyright owner's distribution right with respect to a particular copy is exhausted after the first sale of the copy has its roots in nineteenth-century judicial interpretation of the copyright laws, was enacted into positive law by Congress both in 1909 and in 1976, and received further congressional scrutiny in 1984 and 1990 with the enactment of

\textsuperscript{255} See Alan S. Kay, Rating the Tax Programs, \textit{WASH. POST}, Feb. 15, 2004, at F7 ("All of these firms offer Web-only versions of their applications that run in a browser window. But we can't recommend them, knowing the erratic state of online security; stick to software that lives on your hard drive and keeps your personal data at home.").

The TRIPS Agreement requires member countries to preserve a rental right with respect to computer programs (as does U.S. law, 17 U.S.C. § 109(b)), and to preserve the same right as to movies if within that country “such rental has led to widespread copying of such works which is materially impairing the exclusive right of reproduction.” Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, art. 11, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 33 I.L.M. 1197 (1994). In other respects, TRIPS is agnostic on exhaustion, providing “nothing in this Agreement shall be used to address the issue of the exhaustion of intellectual property rights.” Id. at art. 6. This stance may be attributable to the fact that TRIPS is a trade treaty, rather than a traditional intellectual property treaty, and the protection of intellectual property rights is in some tension with the anti-protectionist bent of trade treaties. See Rochelle Cooper Dreyfuss & Andreas F. Lowenfeld, Two Achievements of the Uruguay Round: Putting TRIPS and Dispute Settlement Together, 37 VA. J. INT'L L. 275, 280 n.12 (1997) (“Exhaustion, then, is one issue that could have forced the drafters of TRIPS to consider the inconsistency between free trade and intellectual property protection.”).

to inflict while accomplishing its purposes. For each such purpose or detriment, I then consider whether the special characteristics of software justify removing software from the scope of the first-sale doctrine.

My conclusion is that (1) several of the differences between software and other types of information goods offer no basis for further limiting or eliminating applicability of the first-sale doctrine to software copies, and (2) other differences offer some support for differential treatment of software, but depend ultimately on the resolution of empirical issues that cannot be addressed in the abstract.

1. Special characteristics of software

Many different types of intellectual creations, with widely varying characteristics, are within the subject matter of copyright—among them works of literature, graphic art, music, performances of musical works, dance, architectural works, and computer programs. Is there anything in the nature of software, in the structure of the current market for software, or in the current technology of its use, that calls for a reconsideration of whether the first-sale doctrine should be further narrowed in its application to software, or eliminated?

Several features of software might be thought relevant. First, as with certain other types of information goods that are stored in digital formats, software can be copied at low cost and with essentially no degradation in quality, and can be transmitted cheaply and almost instantaneously across digital networks. These characteristics are widely viewed as facilitating unauthorized copying of copyrighted works in digital formats, a concern reflected in policy studies, copyright treaties, implementation of technological protection measures, and congressional action. The

257. This view is debatable. See, e.g., Michael J. Meurer, Price Discrimination, Personal Use and Piracy: Copyright Protection of Digital Works, 45 BUFF. L. REV. 845, 881-82 (1997) (noting that sharing of hard-copy materials, like books and magazines, is easier than sharing of digital materials, and that technological measures are available to control the latter but not the former).


259. See WIPO Copyright Treaty, supra note 256, at arts. 11-12; WIPO Performances and Phonograms Treaty, supra note 256, at arts. 18-19 (both requiring member states to forbid circumvention of technological protections of protected works, and to forbid tampering with copyright management information). Congress has implemented these treaty requirements in 17 U.S.C. §§ 1201-1205.

260. Movies recorded on DVDs are protected against unauthorized copying by an encryption technology called the Content Scramble System. The movie studios have
absence of degradation from copying means that a copy, licit or illicit, has nearly the same use value as the original.

Second, software copies do not wear out through use to the extent that some more traditional media for copyrighted expression do. Books, magazines, and newspapers that are passed from hand to hand get torn, lose their bindings, and fade. Celluloid film disintegrates over time. Software should, in principle, not deteriorate at all through use; and while floppy diskettes are subject to mechanical failure and demagnetization, and CD-ROMs and DVDs can deteriorate, it is cheap and easy to make and use backup copies of these media, and preserve the original in pristine condition. This extended physical life means that software may remain in active use longer than other media used for copyrighted expression. Moreover, no matter how much wear and tear the floppy diskette or CD-ROM has endured, as long as the disk is still operable the functionality of the software is identical to that of a disk fresh out of the shrinkwrap; the pixels on the monitor do not show any signs of the use that has been made of the disk.

Third, the technological complexity of software makes it feasible to distribute copies in different versions. For example, a software program can be released in "basic," "deluxe," and "premier" editions, with the enhanced versions offering the same basic functionality but adding bells and whistles, and costing progressively more. Software can also be released in an advertising-supported version, and an otherwise-identical version without advertising, the latter costing more. Versioning is possible with other media types as

brought several lawsuits against promoters of technology that disables the CSS. See Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294, 340-41 (S.D.N.Y. 2000), aff'd, 273 F.3d 429 (2d Cir. 2001) (finding defendants liable for posting on their website software code that allows one to bypass the CSS, and for linking to other websites that post the code); Paramount Pictures Corp. v. 321 Studios, 69 U.S.P.Q.2d 2023, 2024 (S.D.N.Y. 2004) (entering preliminary injunction against company that produced software allowing copying of DVDs).


262. See Peter Svensson, CD and DVD Owners Finding Techno-Rot, WASH. POST, May 11, 2004, at C10 (noting that "optical discs, including DVDs, may be a lot less long-lived than first thought").

263. See SHAFFER & VARIAN, supra note 93, at 53-81.


well: for example, book publishers first release an expensive hardback edition, and only later a cheaper paperback edition. But the technology of software offers more possibilities, and more fine tuning, in versioning.

Fourth, the medium through which software is distributed is very inexpensive in comparison with the value of the program inscribed on it. The price of software ranges from a few dollars to hundreds of dollars or more. The CD-R disks on which the software is distributed are available at retail for twenty-five cents or less. The fat, printed user's manual that used to accompany software is now typically delivered in electronic form, as a PDF file on the distribution disk itself. Packaging, which may be simple or elaborate, adds to the cost.

2. Purposes of the first-sale doctrine

Several justifications for the first-sale doctrine may be advanced. First, the first-sale doctrine serves to limit the scope of the copyright grant, implementing Congress's policy judgment that once a copyright owner has sold (or authorized sale of) a particular copy, it has derived all the revenue attributable to distribution of that copy to which it is entitled. The conventional, instrumentalist justification for granting authors the set of rights that constitute copyright is that without such a grant authors will lack the incentive to bring forth the creative output that society deems optimal. However, the grant of copyright comes at a cost: the copyright owner is able to price access to his creations at a level above the marginal cost of providing that access, with the result that some potential users are priced out of the market, thus limiting the benefits that accrue to the public. The task of the legislator, therefore, is to calibrate the rights included within copyright so as to provide

266. See cases cited supra note 59.
267. The chief rival to the instrumentalist justification, honored in this country more in the breach than in the observance, but taken more seriously elsewhere, is the concept of author's rights, according to which an author has certain moral rights to control the disposition of her intellectual creations merely by virtue of her creation of them. See Natalie C. Suhl, Note, Moral Rights Protection in the United States Under the Berne Convention: A Fictional Work?, 12 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1203, 1205 (2002) (discussing moral rights).
authors269 with just enough economic incentive to create—but not any more than that.

Second, the first-sale doctrine tends to promote the public's access to copies of copyrighted works. It does this in several ways. First, it allows retailers and other distributors to set their own prices for copies of copyrighted works, competing for customers on price.270 In fact, the Supreme Court's first recognition of the doctrine came in a case involving a retailer that sold a copyrighted book at less than the price that the publisher ordained.271 Second, it promotes access to copyrighted works by permitting the operation of a secondary market. Some potential users may be unwilling to pay the price that retailers charge for new copies, but willing to pay a lower amount to buy a used copy on the secondary market. The existence of a secondary market also promotes access by a person who buys the item new, since she can resell the item when she is finished with it and thereby lower her effective cost of use.272 The secondary market also limits the vendors' pricing power, since they must compete with used copies of their own products.273 Third, it allows copies of certain types of copyrighted works to be rented, which can make them available for temporary use at a price significantly lower than the purchase price.274 Stores that rent movies and computer games are the most familiar example. The rule also allows public libraries to make books,

269. The publisher and distributors of copies of a copyrighted work are usually, in commercial contexts, not the same person as the author of the work. A book author, for example, will typically assign his copyright in the literary work to a publisher, which publishes the book and distributes it through distributors and retailers. The author therefore does not receive directly the revenues generated from sales of his books. However, the author's initial ownership of the copyright is what enabled him to require the publisher to pay him some form of compensation, typically in the form of royalties, in exchange for the right to publish the book. See Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281, 292 (1970) (noting that normally, an author grants a publisher an exclusive license to publish her book). The broader the property right that the copyright laws grant to the author, the greater the publisher's expected return from acquiring that right, and therefore the more the publisher should be willing to pay for the copyright *ex ante*. Therefore, broadening the rights conveyed by copyright, such as by eliminating the first-sale doctrine, should, according to economic theory, result in higher compensation to the author. Whether it has this result in practice will depend upon market conditions.

270. See Reese, supra note 43, at 585; SECTION 104 REPORT, supra note 85, at 21 ("[C]ompetition policy is viewed as one of the underlying bases for the first sale doctrine.").


movies, music CDs, and software available for borrowing at no charge.\textsuperscript{275}

Third, the first-sale doctrine implements the common law principle that restraints on free disposition of one's property are disfavored.\textsuperscript{276} The rationale for this principle is not entirely clear,\textsuperscript{277} but in application to personal property the chief justification seems to be that it promotes the goal of achieving economic efficiency by allowing goods to flow to their highest-value uses.\textsuperscript{278} If the person who owns a good is permitted to sell it to another who values it more highly, the welfare of both is increased.\textsuperscript{279} A restraint on alienation, such as the public distribution right in the absence of the first-sale rule, prevents such welfare-enhancing transfers, or at least vests in the copyright owner the right to control such transfers.

Fourth, the first-sale doctrine is an application to information goods of the rule of free alienability that is sometimes identified with the concept of ownership of property of all types,\textsuperscript{280} and that has a longstanding grounding in the common law.

\textsuperscript{275} See id. at 588-90 (noting that there is no direct charge for borrowing, though there may be indirect charges in the form of taxes or membership fees).


\textsuperscript{277} See RESTATEMENT (SECOND) OF PROP.: DONATIVE TRANSFERS, Part I, at 8 (1981) ("The basis or justification for the assumption that social welfare requires the imposition of restrictions upon the interference with the alienation of property has never been adequately explored and has been seldom discussed.").

\textsuperscript{278} See Liu, supra note 75, at 1291 ("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."); RESTATEMENT (SECOND) OF PROP., supra note 277, Part I, at 9 (stating that a rule restricting interference with alienation of property "probably contributes to the increased use of the wealth of society"); RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 37-38 (5th ed. 1998) (explaining how transferability of property rights maximizes property's value).

\textsuperscript{279} Posner, supra note 278, at 38.

\textsuperscript{280} See Sexton v. Wheaton, 21 U.S. (8 Wheat.) 100, 106 (1823) ("It would seem to be a consequence of that absolute power which a man possesses over his own property, that he may make any disposition of it which does not interfere with the existing rights of others, and such disposition, if it be fair and real, will be valid."); Harrison v. Maynard, Merrill & Co., 61 F. 689, 691 (2d Cir. 1894) ("[T]he copy having been absolutely sold to him, the ordinary incidents of ownership in personal property, among which is the right of alienation, attach to it."); RICHARD A. EPSTEIN, TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN 304 (1985) ("The conception of property includes the exclusive rights of possession, use, and disposition."). But see MARGARET JANE RADIN, REINTERPRETING PROPERTY 102 (1993) (criticizing the argument that free alienability is inherent to the nature of ownership as "timeless conservative conceptualism.").
3. Detriments attributable to the first-sale doctrine

From the standpoint of copyright owners, the first-sale doctrine has several drawbacks.

First, and most obviously, the first-sale rule likely results in the sale of fewer copies. When the purchaser of a book sells it on the secondary market, two people get the use of it, but the publisher makes only a single sale. While some of those secondary purchasers perhaps would not have bought the book at full price, others would.

Second, the first-sale rule makes it more difficult for vendors of information goods to engage in price discrimination. Price discrimination is the practice of charging different purchasers different prices for a particular good or service, based on the strength of each purchaser's demand for it. The economist's downward-sloping demand curve reflects the fact that some people are willing to pay more than others for a particular item. A vendor will maximize its profits if it charges each purchaser the highest amount that she is willing to pay, thereby capturing all of the surplus that would otherwise accrue to purchasers in the form of the gap between what each purchaser is willing to pay and what she is charged. This pricing strategy can expand the market for the item, since setting a uniform price means that potential users who value it at less than that price will not acquire it.

To make this strategy work, the vendor must have a way of determining (or at least approximating) the willingness to pay of each prospective purchaser, and must have sufficient market power so that competition among vendors does not push the price down to marginal cost. The determination of willingness to pay is commonly accomplished through a rough approximation, by segmenting purchasers into two or more subgroups based on their perceived demand for the item, gauged on the basis of how much value each purchaser is expected to derive from it.

But price discrimination can work only if the vendor is able to prevent arbitrage: that is, the vendor must prevent those who purchase the item at a low price from turning around and reselling it.

281. See Meurer, supra note 257, at 869.
282. See Fisher, supra note 50, at 1238 (diagramming the economic effect of price discrimination).
283. Id. at 1238-39.
284. See Meurer, supra note 257, at 870.
285. See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1449 (7th Cir. 1996) (describing the practice of segmenting purchasers into commercial users and personal users, and charging the former a higher price). For a discussion of various methods of determining willingness to pay, see Meurer, supra note 257, at 871-74.
to those from whom the vendor is seeking to extract a higher price.\footnote{Fisher, supra note 50, at 1236-37.}
The most effective form of arbitrage control would be a device that causes the item to be useless in the hands of anyone but the original purchaser. This can be accomplished quite successfully with certain types of services. For example, airlines are able to classify customers as either business or casual travelers, and to make the former pay more by setting higher prices for last-minute purchases and refundable tickets. Casual travelers are unable to make their seats available to business travelers because the ticket is valid only when used by the original purchaser. Sellers of goods, however, generally find it much more difficult to control arbitrage, since it is not usually feasible to make a good lose its value when transferred from the original purchaser to another.\footnote{In Quality King Distributors, Inc. v. L'anza Research International, Inc., 523 U.S. 135, 145 (1998), the Court made it more difficult for publishers to control arbitrage consisting of importation into the United States of copies manufactured domestically, but first sold abroad, holding that the first-sale doctrine is applicable to such copies. Publishers of textbooks that sell their books in foreign countries for much less than they sell them domestically are battling against such arbitrage through some of the strategies discussed above: imposing contractual restrictions on their foreign distributors' right to resell, and placing a legend on the books stating "Not for Sale in North America." See Tamar Lewin, Students Find $100 Textbooks Cost $50, Purchased Overseas, N.Y. TIMES, Oct. 21, 2003, at A1.}

If the distribution right were unrestricted by the first-sale doctrine, it would constitute a potent tool for controlling arbitrage, since the copyright owner could deny the first purchaser permission to transfer it publicly to someone else. Under the first-sale doctrine, that power to control distribution is exhausted once a sale is made to the original purchaser. Therefore, if one believes price discrimination with respect to information goods is desirable,\footnote{The proposition is a debatable one. See Julie E. Cohen, Copyright and the Perfect Curve, 53 VAND. L. REV. 1799, 1801-08 (2000) (arguing that the price discrimination model is not necessarily more efficient than the traditional copyright framework at encouraging distribution and creative output); Gordon, supra note 273, at 1386-89 (arguing that increased competition may yield greater benefits than price discrimination).} the first-sale doctrine must be accounted as a detriment to the extent it interferes with application of this strategy.

The third sort of detriment that might be assigned to the first-sale doctrine is that it promotes infringement of copyright through the making of unauthorized reproductions. If the owner of a copy of an information good may freely and publicly transfer it to another, she gains an incentive to make an unauthorized copy: she can keep the copy, continuing to derive value from it, while selling the original, getting back at least a portion of her purchase price. If, on
the other hand, her public distribution is itself an infringement, she will hesitate to do so for fear of finding herself a defendant in an infringement action, and will find fewer avenues for gaining by copying-and-resale. Preventing unauthorized copying was the stated goal of the 1984 and 1990 amendments to the Copyright Act, which granted copyright owners control over commercial rental of software copies and sound recordings.\(289\)

4. Relation between the first-sale doctrine and the special characteristics of software

We may now consider whether any of the special characteristics of software, discussed above in Part I(E)(1), justify reconsideration of the applicability of the first-sale doctrine to software, in light of the purposes of the doctrine, Part I(E)(2), and the detriments that may be thought to flow from it, Part I(E)(3).

Setting the correct level of compensation. The first of the justifications for the first-sale doctrine is that it is one element of setting the "correct" level of compensation that the copyright owner receives in exercising his rights. Congress's determination, implemented by the first-sale doctrine, is that the copyright owner may charge whatever the market will bear for the initial transfer of ownership of a copy, but nothing for any subsequent transfers.\(290\) This amounts to a division of the revenue stream generated by successive transfers of ownership of a copy, with revenue from the first sale going to the copyright owner, and revenue from subsequent sales shared among the subsequent sellers. It might be argued that in the case of software, dividing the revenue stream in this way results in the copyright owner's retention of a smaller proportion of total revenues than is the case with other types of copyrighted materials. Because software copies do not degrade much in use, and the software's functionality does not degrade at all, a used software copy has nearly the same use value as a new copy.\(291\) Therefore, the value to be had from a copy is not front-loaded into the first sale of it, as with other types of information goods, but is distributed more evenly through the entire string of first and subsequent sales.\(292\)

\(289\). See supra notes 41-44 and accompanying text.

\(290\). See supra note 59 and accompanying text.

\(291\). However, a software copy might be less valuable in the hands of a subsequent user than it was to the first user, if the software publisher offers support only to the first user, and the support is of significant value.

\(292\). A simple example will illustrate the point. A software publisher sells a CD-ROM containing a computer program for $100. The purchaser uses it, and then sells it on the secondary market for $90. This is only a 10-percent discount from the new price, but the second purchaser is willing to pay it since the used disk offers nearly 100 percent of the functionality of a new one. This means that the original purchaser has
Several objections to this argument come to mind. First, it assumes that the software publisher must price the software no higher than the value that a prospective purchaser places on using the software. But if the publisher knows there is a lively secondary market for its products, it can raise its selling price above the value that the product holds for its purchasers, since purchasers will recognize that the true cost to them is the purchase price less what they receive on resale.293 In this way, the publisher can appropriate, through the first sale of a copy, some share of the surplus generated in subsequent resales.294

had use of the software for a net cost of only $10. The first-sale doctrine prevents the software publisher from sharing in the surplus enjoyed by the first purchaser: namely, the difference between the $10 that he paid, and the $100 that use of the software is presumably worth to him (assuming that the vendor has accurately priced the software at the purchaser's valuation of it). The publisher's share of that surplus, if it could be appropriated, would be in the range of $0 to $90, depending on market conditions.

Now consider a book publisher that sells a book for $100. The purchaser sells it used for $50. This is a 50-percent reduction from the original price, which is all a second purchaser is willing to pay, since the book has deteriorated in use and is therefore not as appealing; unlike the second purchaser of the software, the second purchaser of the book would rather pay $100 for a new item than $90 for a used one. The first-sale doctrine therefore takes less of a bite out of the book publisher's potential distribution revenues: it loses only a share of the difference between the net $50 that the first purchaser paid, and the $100 that the book was worth to him, something in the range of $0 to $50.

293. See Peter L. Swan, Alcoa: The Influence of Recycling on Monopoly Power, 88 J. POL. ECON. 76, 78 (1980). Returning to the example from the preceding footnote, the software publisher might sell its product for $200 instead of $100. The first purchaser is willing to pay $200, even though he values use of the software at only $100, because he expects to be able to sell the disk for $180, representing 90 percent of its original purchase price. The first purchaser is happy, since he has paid $20 net for use of software he valued at $100. The second purchaser is also happy, because he got the software for $20 less than if he had bought it new, and he expects to sell it for something close to his purchase price, so his net cost of ownership will be much less than the value he derives from it.

294. Analogous premises lead to the conclusion that under certain circumstances the publisher of an information good may earn higher profits under a regime that allows small-scale private copying than under one that prohibits such copying. The publisher in effect uses consumers as distribution agents, and makes money by charging more for the initial copy in the expectation that several users will derive value from it. See Stanley M. Besen & Sheila Nataraj Kirby, Private Copying, Appropriability, and Optimal Copying Royalties, 32 J.L. & ECON. 255, 264-72 (1989); see also Meurer, supra note 257, at 880-81 (noting that when copying occurs publisher's reduced revenues are partly offset by reduced distribution costs). Where the marginal cost of sharing is negligibly low, as it might be in the case of digital copies that are transmitted via the network, the publisher may still be better off under conditions of small-scale copying, as aggregation of several users' demand curves facilitates the publisher's price discrimination. See Yannis Bakos et al., Shared Information Goods, 42 J.L. & ECON. 117, 123-27 (1999).
Second, the argument assumes that the useful economic life of a computer program is the same as that of other information goods. But it is the rare consumer software title that has a useful life of more than a few years. A particular copy may degrade in market value very quickly, as it is superseded by a newer version, as the medium falls out of fashion (5½-inch floppy diskettes are of little value to anyone given the near disappearance of drives capable of reading them), or as the operating system it was written for fades away (how much would you pay for a copy of Lotus 1-2-3 for OS/2?). By contrast, a classic piece of literature may have a useful life lasting hundreds of years, or (we may speculate) perpetually. To the extent software has a shorter useful life, there will be fewer purchasers who will derive value from a particular copy, and less surplus that fails to be captured in the publisher's first sale. On the other hand, the shorter useful life may be more than offset by the absence of degradation of software's functionality through continued use. Furthermore, other types of information goods have short useful lives. A two-week-old daily newspaper is not highly marketable, and eight-track tapes and phonograph albums have limited market appeal due to the scarcity of tape players and turntables.

In sum, whether the special characteristics of software prevent software publishers from deriving the revenue from the sale of a given copy that Congress has decreed appropriate is a complex empirical question to which no ready answer may be supplied in the abstract.

Promoting access. The goal of promoting access to copyrighted works, by enabling the existence of secondary, rental, and lending markets, and by promoting competition among vendors, seems as applicable to software as it is to other types of information goods. Particularly since the first-sale doctrine with respect to software has been narrowed so as to preclude the development of a rental market, further narrowing or eliminating the doctrine would substantially interfere with the goal of access.

Economic efficiency. As is the case with other information goods, a person who owns a copy of a computer program may value it less highly than another person. A loss to society results if the low-valuing owner is disabled from transferring the copy to a higher-valuing person. But the welfare loss may be less in the case of software than with other information goods. This is because of the limited extent of resources bound up in a copy of software distributed

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on a CD-ROM, floppy diskette, or some other low-cost material object. Suppose, for example, that Alice owns a software copy, for which she no longer has any use, and therefore values it at $0. Bob would like to own a copy of the software, which he values at $50. If Alice sells the copy to Bob for $45, there is a total welfare increase of $50, less the attendant transaction costs: Alice's welfare increases by $45 less her share of the transaction costs, while Bob's increases by $5 less his share of those costs. Now suppose that the first-sale right is eliminated, so that Alice may not sell the copy to Bob absent authorization from Publisher, which authorization is withheld. Bob must then obtain his copy from Publisher. The latter, exercising price discrimination, is willing to sell a copy to Bob at $45. The total welfare increase is then $50, less Publisher's cost to produce the copy to Bob, and less the attendant transaction costs: Publisher gains $45 less its production and transaction costs, while Bob gains $5 less his transaction costs. Assume that the transaction costs in the two scenarios are equivalent. Then moving from the first scenario, in which the first-sale doctrine applies, to the second scenario, in which it does not, results in a net welfare loss amounting to Publisher's cost to produce the copy. 

297 Put another way, the welfare gain attributable to applying the first-sale doctrine to a transaction involving a particular information good is an increasing function of the cost of producing and delivering a copy of that good. Thus, if the cost of producing and delivering a software copy is small in comparison to the same costs with respect to other types of information goods, then the welfare loss resulting from elimination of the first-sale doctrine with respect to software copies will be correspondingly smaller, and might be outweighed by other considerations in favor of expanding a software publisher's control over copies of its products beyond the first sale. As suggested above, given how cheap blank CD-ROMs are, the cost of producing and delivering a software copy may well be low in comparison with other information goods such as books, newspapers, and lithographic reproductions of graphic artwork. But this is not the end of the story.

297. More generally, suppose that Alice values the software at \( V_A \), and Bob values it at \( V_B \). Under the first scenario, in which the first-sale doctrine is in force, Alice sells her copy to Bob for \( P_{AB} \), where \( V_A < P_{AB} < V_B \). The attendant transaction costs total TC. The welfare increase generated by this transaction is \( (V_B - P_{AB}) + (P_{AB} - V_A) - TC = V_B - V_A - TC \). Under the second scenario, without the first-sale doctrine, Publisher sells a copy to Bob at \( P_{PB} \), where \( MC_P < P_{PB} < V_B \), and \( MC_P \) represents Publisher's marginal cost to produce a copy. If the transaction costs in this scenario are also TC, the resulting welfare increase is \( (V_B - P_{PB}) + (P_{PB} - MC_P) - TC = V_B - MC_P - TC \). The change in welfare resulting from elimination of the first-sale doctrine is therefore \( (V_B - MC_P - TC) - (V_B - V_A - TC) = V_A - MC_P \). Assuming that \( V_A \) will in general be no different for software than for other information goods, the effect of eliminating the first-sale doctrine depends upon the magnitude of \( MC_P \).
There must also be considered the cost of copying the computer
program onto the disk, the cost of the packaging, and the costs of
marketing and distributing the copies. There are more empirical
questions lurking here, which do not permit an easy conclusion
whether the efficiency loss resulting from elimination of the first-sale
document with respect to software copies would be small relative to
corresponding losses with respect to other types of information goods.

*Inherent rights of an owner of property.* If one believes that
inherent in the concept of ownership is the right to alienate one's
property at will, then one must support exhaustion of the public
distribution right after the first sale, irrespective of the type of
information good involved.

*Reducing the publisher's sales.* While the first-sale doctrine may
be expected to reduce the number of copies that a publisher is able to
sell, this is by hypothesis not a detriment but a gain to society as a
whole, since it implements Congress's judgment as to the "correct"
scope of the copyright grant.

*Interference with price discrimination.* If one believes that price
discrimination can result in welfare gains, then the first-sale doctrine
is a detriment to the extent that it encourages arbitrage, which must
be limited for price discrimination to succeed.\(^{298}\) There are some
reasons to believe that the encouragement of arbitrage resulting from
the first-sale doctrine is less of a problem with software than with other
types of information goods. This is because, as discussed above,
software offers built-in capacities for price discrimination, even if
purchasers are free to resell their copies. A version of software that
the publisher sells for a lower price to lower-valuing users may be a
stripped-down version that will not appeal to higher-valuing users.\(^{299}\)
Furthermore, the publisher may confine value-added services to the
original purchaser. The complexity of software means that technical
support often adds substantial value to the product.\(^{300}\) A software
publisher can reduce the attractions of arbitrage by providing
technical support only to the original purchaser, as ascertained
through a registration procedure. This makes the value of a software
copy in the hands of a subsequent purchaser less, in some cases
substantially less, than in the hands of the original purchaser.
Likewise, the publisher may offer updates and bug fixes only to the
original purchaser.

*Encouragement of piracy.* The first-sale doctrine may be thought

\(^{298}\) See Meurer, supra note 257, at 870 ("Effective price [discrimination]
requires... a means to stop arbitrage by favored consumers... ").

\(^{299}\) See id. at 872-73 (describing price discrimination techniques that software
publishers may use).

\(^{300}\) Id.
to encourage unauthorized copying of information goods in digital forms, including software. This may result in a reduction in sales, and a consequent diminution of revenues that the author receives. Once again, however, the effect on revenues of unauthorized copying is an empirical question. While the publisher may lose sales through substitution of unauthorized copies, this loss may be more than offset by gains attributable to increased exposure and reduced distribution costs.\footnote{See James Boyle, \textit{The Second Enclosure Movement and the Construction of the Public Domain}, 66 \textit{Law \& Contemp. Probs.} 33, 42-43 (2003) (observing that digital technologies facilitate unauthorized copying, but offer compensations in the form of lowered costs of production and distribution, an enlarged potential market, and technological aids to detecting unauthorized copying).} Moreover, as discussed above, the software publisher may be able to appropriate a share of the surplus generated by these additional copies, by raising the price to reflect the fact that more than one person will be deriving use as the result of each sale of a copy.

\textit{F. Conclusion}

As demonstrated above in Part I(C) and (D), the first-sale doctrine, in combination with property law and the law of commercial transactions, makes it difficult for a software publisher to exercise control over copies of its products once those copies are in the hands of end users. In each of the most common distribution paradigms, the end user generally becomes an owner of the copy, and thus is freed from the reach of the publisher's exclusive right to control public distribution of that copy. There are modes of distribution that a software publisher may employ to extend its control over copies even in the hands of end users, which are likely to be feasible in some market segments but not in others.

As the discussion in Part I(E) indicates, the normative basis for upsetting current doctrine, and removing software from the scope of the first-sale doctrine, is equivocal at best. There is room to argue that the first-sale doctrine as applied to software yields less in the way of benefits, and entails greater detriments, than it does as applied to other information goods. However, there are also arguments to the contrary, as well as empirical questions that make it impossible to conclude with any confidence that present doctrine is in need of reform.

\section*{II. Restraining Alienation Through Contract}

Another method that software publishers use in an effort to prevent the development of a secondary market in software copies is to impose contractual restrictions on the authority of an end user to
transfer copies of the software, by gift or sale. These contractual restrictions appear in the license agreements that accompany virtually all transactions involving transfers of software to end users.

An example of a contractual provision that purports to prevent the acquirer from alienating her copy of the software is contained in the End User License Agreement ("EULA") that accompanies Microsoft's Windows 98 operating system software:

The SOFTWARE PRODUCT is licensed with the HARDWARE as a single integrated product. The SOFTWARE PRODUCT may only be used with the HARDWARE as set forth in this EULA.

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Software Product Transfer. You may permanently transfer all of your rights under this EULA only as part of a permanent sale or transfer of the HARDWARE, provided you retain no copies, you transfer all of the SOFTWARE PRODUCT (including all component parts, the media and printed materials, any upgrades, this EULA and, if applicable, the Certificate(s) of Authenticity), and the recipient agrees to the terms of this EULA.

Thus, it is a violation of the EULA to give or sell your copy of Windows 98 to someone else, if that person will use it on a personal computer other that the one with which it was sold as a bundle.302

As I show below, contractual restrictions on the transfer of a material object containing a computer program are generally unenforceable, because state contract law is preempted by the Copyright Act to the extent it would allow enforcement of such a provision.

A. Preemption under the Copyright Act

The 1976 Copyright Act broke with all prior federal copyright laws, going back to 1790, by creating a unitary regime of copyright protection applying uniformly to both published and unpublished works. Prior to the effective date of the 1976 Act, a dual system prevailed. Unpublished works of authorship were protected, if at all, by state law, generally referred to as "common-law copyright." Common-law protection was perpetual in duration: that is, it lasted as long as the protected work remained unpublished. Publication of the work altered its status under both state and federal law. Upon publication, the work lost its common-law

302. Similarly, the License Agreement accompanying Quicken 2003 Premier states: "You may not attempt to... assign, loan, resell for profit, [or] distribute... the Intuit Software, Disk(s), or related materials..."
protection, and it might—or might not—gain federal (often referred to as "statutory") protection. If publication of the work was accompanied by the requisite notice, federal protection would attach; the required notice consisted of the word "Copyright" (or sometimes the copyright symbol, "©"), the name of the copyright owner, and the date of publication. However, if the work was published without the requisite notice, the work did not acquire statutory protection. Having lost its common-law protection, and not having achieved statutory protection, the work went into the public domain, free to use by all.  

The 1976 Act eliminated publication as the dividing line between state and federal protection. As of the January 1, 1978 effective date of that Act, works of authorship are protected by federal law as soon as they are fixed in some tangible medium, regardless of whether they have been published. Common-law protection for works of authorship thus became vestigial, limited in scope primarily to those works that are not "fixed," such as extemporaneous and unrecorded speeches, jazz performances, and dances.

When it extended the scope of federal copyright to include unpublished works, Congress decided to preempt state law to the extent that it conflicted with the federal scheme. It accomplished this by including in the 1976 Act an explicit preemption provision, section 301(a), which provides:

On and after January 1, 1978, all legal or equitable rights that are equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106 in works of authorship that are fixed in a tangible medium of expression and come within the subject matter of copyright as specified by sections 102 and 103, whether created before or after that date and whether published or unpublished, are governed exclusively by this title. Thereafter, no person is entitled to any such right or equivalent right in any such work under the common law or statutes of any State.

The courts have distilled this provision into a two-part test, according to which a state-law right is preempted to the extent that it (1) is "equivalent' to any of the exclusive rights" granted by section

305. See Baltimore Orioles, Inc. v. Major League Baseball Players Ass'n, 805 F.2d 663, 675 (7th Cir. 1986).
306. 17 U.S.C. § 301(a). Section 301(b) provides, redundantly, that state law is not preempted to the extent it applies to "subject matter that does not come within the subject matter of copyright," or to the extent it applies to "activities violating legal or equitable rights that are not equivalent to any of the exclusive rights within the general scope of copyright." Id. § 301(b)(1), (3).
106, and (2) is applied to a work that is fixed and comes “within the subject matter of copyright.”

The “subject matter” test is usually straightforward in application. A work is within the subject matter of copyright if it fits in one of the categories of works enumerated in section 102(a), even if it fails to qualify for protection under the Act, as it might if “it is too minimal or lacking in originality to qualify, or . . . it has fallen into the public domain.” One category of works that are clearly not within the subject matter of copyright are those that are not fixed in some tangible medium of expression. As noted above, state law can continue to provide copyright-like protection to such works.

The “equivalent rights” criterion has proved more troublesome in application. How are we to determine whether a right created by state law is “equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106”? Numerous courts have glossed the criterion as some variation of the following:

Equivalency exists if the right defined by state law may be abridged by an act which in and of itself would infringe one of the exclusive rights. Conversely, if an extra element is required instead of or in addition to the acts of reproduction, performance, distribution or display in order to constitute a state-created cause of action, there is no preemption, provided that the extra element changes the nature of the action so that it is qualitatively different from a copyright infringement claim.

The clearest case for application of this criterion would be to a state law that prohibits unauthorized copying of a work of authorship. Such a law creates a right that is violated by an act—copying—that, “in and of itself,” infringes a copyright owner’s exclusive right to reproduce the work, protected by section 106(1).

308. HOUSE REPORT, supra note 11, at 131; see Baltimore Orioles, Inc., 805 F.2d at 676.
311. See Maljack Prods., Inc. v. GoodTimes Home Video Corp., 81 F.3d 881, 888 (9th Cir. 1996) (explaining that a state law that purported to prohibit copying of a music soundtrack would be preempted) (dictum); Daboub, 42 F.3d at 289 (finding that the
A paradigmatic example of a state law that, while applying to works that are within the subject matter of copyright, does not protect rights equivalent to any of the copyright owner's exclusive rights, is the law of conversion. This is because a cause of action for conversion requires an "extra element" beyond those acts that constitute copyright infringement, namely depriving a chattel's owner of possession or use of the chattel; and that element makes a conversion claim "qualitatively different from a copyright infringement claim." Thus, a state law giving an author a cause of action to recover a stolen literary manuscript would not be preempted.

The rationale behind preemption of state laws that protect rights equivalent to those protected by the federal copyright laws is not hard to discern. The federal scheme of copyright is carefully calibrated to effectuate an appropriate balance among the various interests involved. Granting authors the copyright in their works benefits the public generally, but at a cost. Through exercise of their exclusive rights, copyright owners raise the price of access to their works above the level that would prevail in the absence of those rights, under conditions of unimpeded competition. Increasing the amount of control that copyright owners may exercise over use of their works at some point yields negative returns, as an extra unit of control results in little or no marginal propensity to create additional works.

The degree of control that copyright owners should be granted, to

plaintiff's state law claims were preempted because they "center on the improper copying of the song, an interest clearly protected by the Copyright Act"); Rosciszewski, 1 F.3d at 230 (holding that since the essence of the claim is the "unauthorized copying of a computer program," the claim is preempted).

Note that, for preemption to occur, the conduct in question need not actually constitute infringement. For example, a state law that provides perpetual protection against unauthorized copying would be preempted to the extent it prohibits copying of works the statutory copyright of which has expired, even though (indeed, precisely because) such copying does not infringe the statutory copyright.

312. "Conversion is an intentional exercise of dominion or control over a chattel which so seriously interferes with the right of another to control it that the actor may justly be required to pay the other the full value of the chattel." Restatement (Second) of Torts § 222A(1) (1965). Actions that can constitute such a serious interference include dispossessing the owner of the chattel, destroying the chattel, and using it in a manner inconsistent with the right of the owner to control it. Id. § 223.

313. Wrench, 256 F.3d at 456.

314. See Oddo v. Ries, 743 F.2d 630, 635 (9th Cir. 1984) ("Conversion of tangible property involves actions different from those prescribed by the copyright laws, and thus is not preempted."); House Report, supra note 11, at 133 ("Nothing contained in section 301 precludes the owner of a material embodiment of a copy or a phonorecord from enforcing a claim of conversion against one who takes possession of the copy or phonorecord without consent.").
optimize societal welfare, thus is a policy choice, and one that Congress has determined to exercise according to its own lights, excluding any contrary choices that might be made by state courts or legislatures. If states were allowed to protect works within the subject matter of the federal copyright laws, by granting rights equivalent to but more expansive than those protected by federal law, the federal scheme could be set at naught. For example, a state law giving a copyright owner the right to prohibit copying of her works in perpetuity would render practically irrelevant the constitutional limitation of federal copyright to "limited Times."315 Likewise, a state law allowing a copyright owner to prohibit quotation of small excerpts from his works for purposes of comment and criticism would eviscerate the doctrine of fair use, which has been part of the federal law for a century and a half.316

B. Preemption of contract claims under section 301(a)

When a software publisher seeks to enforce a provision of a license agreement that purports to limit the uses that may be made of the software that it accompanies, the publisher must have recourse to state law making breach of contract actionable. A computer program, fixed (as it must be to be usable) in a tangible medium of expression, is a literary work that falls “within the subject matter of copyright.”317 Therefore, state contract law will be preempted, under section 301(a), to the extent it purports to create “rights that are equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106” by enforcing provisions of a license agreement.318

There are two lines of authority on the question whether section 301(a) preempts contract causes of action. According to the first view, whether a contract claim is preempted depends upon the nature of the conduct that constitutes the claimed breach of contract. If the breach consists of some conduct that could itself constitute an infringement of one of the exclusive rights of the copyright owner under section 106, then the contract claim is preempted—just as would be a state law that directly creates such a right. Conversely, if the conduct that is alleged to breach the contract consists of some

315. U.S. CONST. art. I, § 8, cl. 8. According to the legislative history of the 1976 Act, the goals underlying the preemption rule of section 301 include “national uniformity” and implementation of the “limited times” provision of the Constitution’s Intellectual Property Clause. HOUSE REPORT, supra note 11, at 129-30.

316. See Folsom v. Marsh, 9 F. Cas. 342, 348 (C.C.D. Mass. 1841) (“[A] justifiable use of the original materials...the law recognizes as no infringement of the copyright...”).


318. Id.
action different from or in addition to conduct that infringes one of the exclusive rights, the claim is not preempted. This approach is a straightforward application of the "equivalent rights" test, as described above: "Equivalency exists if the right defined by state law may be abridged by an act which in and of itself would infringe one of the exclusive rights."  

An example of this approach is provided by *National Car Rental System, Inc. v. Computer Associates International, Inc.* Computer Associates ("CA") made its data processing software available to National Car Rental ("National"), subject to a license agreement stating that National may use the software "only for the internal operations of Licensee and for the processing of its own data." CA discovered National was using the software to "process the data of third parties" and threatened to sue. In response, National initiated an action for declaratory judgment, and CA counterclaimed, alleging that National had breached the license agreement. National sought dismissal of the counterclaim on the basis that it was preempted by section 301(a).  

The court recited the "equivalent rights" test, and explained that the issue for determination was "whether CA's allegation that National breached their contract by using the program in a fashion not allowed under the contract protects a right equivalent to one of the exclusive copyright rights." The court found that the conduct alleged as the breach was not conduct that infringed any of the copyright owner's exclusive rights. The alleged breach consisted of using the software in a manner not permitted by the contract terms. But "use" for a particular purpose is not one of the copyright owner's exclusive rights, so the contract claim was predicated on conduct different from that which infringes copyright. Accordingly, the contract cause of action did not protect a right "equivalent to any of the exclusive rights," and the claim was not preempted.

The same approach may, in other circumstances, yield the conclusion that a contract claim is preempted. In *Higher Gear Group, Inc. v. Rockenbach Chevrolet Sales, Inc.*, Higher Gear provided software to Rockenbach, an automobile dealership, under a license agreement allowing Rockenbach to use it for internal business

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320. 991 F.2d 426 (8th Cir. 1993).
321. *Id.* at 427 (internal quotations omitted).
322. *Id.* at 428.
323. *Id.*
324. *Id.* at 430-31.
325. *Id.* at 433.
327. 223 F. Supp. 2d 953 (N.D. Ill. 2002).
purposes only. The agreement also forbade Rockenbach "to copy or create derivative works of the software." Higher Gear alleged that Rockenbach breached the agreement in several ways, including (1) by using the software for the benefit of third parties and (2) by allowing another company to copy the software and make derivative works based on it. The court held that the first of these claims was not preempted: as in National Car Rental, the infringing conduct was use of the software for an unauthorized purpose, which conduct does not in itself infringe any of the copyright owner's exclusive rights. But the court reached the opposite conclusion with respect to the second claim, explaining: "A breach of contract claim should be preempted... if the allegations of breach are based on nothing more than the act of infringement." Here, the conduct that plaintiff alleged breached the contract included making copies and derivative works, conduct that infringed the copyright owner's exclusive rights of reproduction and adaptation under section 106(1) and (2).

Other courts have applied a similar methodology, looking at the conduct that is alleged to have breached the contract, and determining whether that conduct involved an element beyond those which infringe one of the exclusive rights of copyright. This approach leads in some cases to the conclusion that the contract claim is preempted, and in other cases to the conclusion that the claim is not preempted.
The alternative approach to preemption of breach-of-contract causes of action is to hold that they are per se not preempted. The most influential proponent of this approach—though an equivocal one, as we shall see—is ProCD, Inc. v. Zeidenberg. ProCD published a database of telephone listings, which it distributed on CD-ROM. The "Single User License Agreement" ("Agreement") accompanying the software provided, among other things: "[Y]ou will not make the Software or the Listings in whole or in part available to any other user in any networked or time-shared environment, or transfer the Listings in whole or in part to any computer other than the computer used to access the Listings." The Agreement also "limits use of the application program and listings to non-commercial purposes." The Agreement was of the "shrinkwrap" variety: its terms were not made available to the purchaser of the software until after purchase. The license terms were printed in the manual accompanying the software, and appeared on the user’s monitor each time the software was run.

Zeidenberg purchased a copy of the software, and made the telephone listings available to users via a website. ProCD sued, alleging (among other things) that Zeidenberg infringed its copyright in the software and breached the Agreement. The district court works. As such, the contract claim seeks to enforce rights that are qualitatively different from those created by the federal copyright laws.

In Kabehie v. Zoland, the court held that some of the contract claims that plaintiff asserted are preempted, and some not, depending on the particular rights involved. Thus, the claim for breach of contract based on defendant's "producing, duplicating, selling, [etc.]" copyrighted works is preempted since "[t]hese are simply the reproduction and distribution rights protected by federal copyright law." But the contract claim based on failure to deliver a master recording is not preempted, because failure to deliver "is an extra element that is different from a copyright infringement claim." 

See also Lemley, supra note 124, at 1255-59 (discussing copyright preemption of shrinkwrap licenses).

335. 86 F.3d 1447 (7th Cir. 1996).
336. Id. at 1449.
338. 86 F.3d at 1450.
339. Id. at 1449-50.
340. Id.
341. Id. at 1450.
held that section 301(a) preempts ProCD's contract cause of action, but the court of appeals reversed. The court of appeals found that the contract claim met the first of the two conditions for preemption: the claimed rights pertained to a work "within the subject matter of copyright," even if, as the district court held, and the appellate court assumed, the telephone listings did not feature sufficient originality to qualify for copyright protection.

However, the court of appeals held that the contract claim did not meet the second requirement for preemption: it did not protect rights "equivalent to" any of the exclusive rights of the copyright owner. The court explained:

Rights "equivalent to any of the exclusive rights within the general scope of copyright" are rights established by law—rights that restrict the options of persons who are strangers to the author. A copyright is a right against the world. Contracts, by contrast, generally affect only their parties; strangers may do as they please, so contracts do not create "exclusive rights."

The court proffered an additional reason why the contract claim was not preempted. A contract is a private pact between two parties. Subject only to narrow exceptions, the law respects private ordering, and enforces contracts. That is true, in particular, of section 301(a). Since that provision "does not itself interfere with private transactions in intellectual property, so it does not prevent states from respecting those transactions."

Since all contracts bind only the parties to the contract, and all contracts reflect private ordering, the implication of the court's reasoning is that no contract cause of action is preempted by section 301(a). Indeed, the court restates its holding as: "a simple two-party contract is not 'equivalent to any of the exclusive rights within the general scope of copyright' and therefore may be enforced." Several
courts have adopted the approach of ProCD, holding that no contract cause of action is preempted by section 301(a).  

As various commentators have observed, the absolutist approach of ProCD is palpably incorrect. For one thing, the court's distinction between the "public" rights that copyright establishes and the "private" rights that contract creates breaks down in the context of typical consumer software, including the very software at issue in the case. The contractual restriction on commercial use of the ProCD software is effective (if at all) not only against the party who contracted to purchase the software, but also against any possessor of the software copy. Upon loading it onto her computer, the user is required to assent to the "license agreement," by clicking a button signifying her assent, before she may proceed to use the software. Thus, a contractual term presented in the form of a clickwrap and possibilities are too numerous to foresee." Id. The court makes no effort to reconcile this statement with the rest of its opinion.

353. See Bowers v. Baystate Techs., Inc., 320 F.3d 1317, 1325 (Fed. Cir. 2003) (adopting ProCD's view "that the mutual assent and consideration required by a contract claim render that claim qualitatively different from copyright infringement"); Lipscher v. LRP Publ'ns, Inc., 266 F.3d 1305, 1318 (11th Cir. 2001) (adopting ProCD's view that "claims involving two-party contracts are not preempted because contracts do not create exclusive rights, but rather affect only their parties").

Some courts explain the non-preemption of contract claims on the basis that the promise of the contracting party constitutes an "extra element" that renders the rights protected by contract not "equivalent to" the exclusive rights of the copyright owner. See Taquino v. Teledyne Monarch Rubber, 893 F.2d 1488, 1501 (5th Cir. 1990) ("This action for breach of contract involves an element in addition to mere reproduction, distribution or display: the contract promise made by Taquino, therefore, it is not preempted."); Architectronics, Inc. v. Control Sys., Inc., 935 F. Supp. 425, 438 (S.D.N.Y. 1996) ("Tort-like copyright infringement claims, unlike breach of contract claims, do not require a promise by the defendant to refrain from using protected subject matter."); cf. Maureen A. O'Rourke, Drawing the Boundary Between Copyright and Contract: Copyright Preemption of Software License Terms, 45 DUK. LJ. 479, 523, 528-29 (1995) (in the context of a negotiated contract with a no-decompilation term, the breach of promise is an "extra element" that prevents a contract claim from being preempted; but in the context of a standard-form, take-it-or-leave-it contract, the absence of informed consent to the term presents a more difficult preemption issue).

354. See Lemley, supra note 79, at 140 ([I]t is generally accepted that . . . copyright law does not automatically preempt either trade secrets law or contract law. Rather, those state laws are evaluated on a case-by-case basis to determine whether they impermissibly operate in any given situation to create a state right 'equivalent' to copyright."); David A. Rice, Public Goods, Private Contract and Public Policy: Federal Preemption of Software License Prohibitions Against Reverse Engineering, 53 U. PIT. L. REV. 543, 604 (1992) ([I]t is clearly established that state enforcement of contract rights is not wholly immune from Section 301(a) preemption. Where the effect of enforcing a right under state contract law is to create a right in statutory subject matter which is the equivalent of a Section 106 exclusive right, state law is preempted.").

355. This adverts to the contestability of the proposition that terms presented to the buyer only after the purchase are contractually binding. See supra note 179.
agreement is "a right enforceable against the world" no less than a copyright.\textsuperscript{356}

Furthermore, the view that section 301 preempts no contracts is inconsistent with the clearly expressed intent of Congress to craft a unitary, federal-law scheme establishing the scope of copyright protection.\textsuperscript{357} Consider a hypothetical license agreement associated with the distribution of a software product, providing:

Licensee may make a copy of the Software Product by loading it into the random access memory of a single computer, as an essential step in utilizing the Software Product. Licensee is not permitted to make a copy of the Software Product for any other purpose, including for archival purposes.

This restriction on the acquirer's use of the software directly conflicts with section 117(a), which provides that the copyright owner's reproduction right does not include the right to prevent the owner of a computer program from making a backup copy of it.\textsuperscript{358} The right that the contract purports to grant to the copyright owner is therefore a right "equivalent to" one of the exclusive rights, namely the reproduction right. Enforcing such a state-created right would be counter to the explicit language of section 301(a).

But the unacceptably broad sweep of the Seventh Circuit's approach in \textit{ProCD v. Zeidenberg} is not limited to hypothetical cases. In \textit{Bowers v. Baystate Technologies, Inc.},\textsuperscript{359} a panel of the Federal Circuit, with one judge dissenting, applied this same approach to hold that section 301(a) does not preempt enforcement of a provision in a shrinkwrap license prohibiting reverse engineering of a computer program.\textsuperscript{360} The court acknowledged that, under its own caselaw,\textsuperscript{361} reverse engineering for the purpose of discovering an unprotected idea locked up in computer code is fair use, and therefore is not copyright infringement.\textsuperscript{362} However, it followed \textit{ProCD in

\begin{footnotesize}
\begin{enumerate}
\item See, \textit{e.g.}, Robinson, \textit{supra} note 170, at 1478.
\item \textit{HOUSE REPORT, supra note 11, at 129-30.}
\item 17 U.S.C. § 117(a).
\item 320 F.3d 1317 (Fed. Cir. 2003).
\item \textit{Id.} at 1325.
\item \textsuperscript{359} Atari Games Corp. v. Nintendo of Am. Inc., 79 F.3d 832, 844 (Fed. Cir. 1992) ("Atari did not violate Nintendo's copyright by deprocessing computer chips in Atari's rightful possession. Atari could lawfully deprocess Nintendo's 10NES chips to learn their unprotected ideas and processes."); \textit{see also} Bateman v. Mnemonics, Inc., 79 F.3d 1532, 1539-40 n.18 (11th Cir.1996) (expressing agreement with the view that reverse engineering may be a fair use); Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1527-28 (9th Cir. 1992) ("Where disassembly is the only way to gain access to the ideas and functional elements embodied in a copyrighted computer program and where there is a legitimate reason for seeking such access, disassembly is a fair use of the copyrighted work, as a matter of law.").
\item \textit{Bowers}, 320 F.3d at 1325.
\end{enumerate}
\end{footnotesize}
holding that "the mutual assent and consideration required by a contract claim" saves it from preemption, regardless of the content of the claim.\footnote{Id. For a critique of the majority opinion in Bowers, see David A. Rice, Copyright and Contract: Preemption After Bowers v. Baystate, 9 ROGER WILLIAMS U. L. REV. 595, 617-34 (2004).}

Since the absolutist position on the preemption of contract causes of action is not tenable, the correct criterion must be the one that applies to all other causes of action: a state law applying to material within the subject matter of copyright is preempted to the extent it may be violated by an act that itself infringes one of the exclusive rights of copyright.

C. Preemption of contractual restrictions on the alienability of copies of software

Let us return to contractual provisions in software license agreements that purport to limit the right of the acquirer of a software copy to alienate that copy. Is state contract law preempted by section 301(a) to the extent it would permit enforcement of such a term?

It is. The right created by state law consists of the right of the software publisher to prevent the possessor of a software copy from transferring possession of the copy to somebody else. That state-law right is violated by an act that, in and of itself, infringes one of the exclusive rights of the copyright owner: namely, public distribution of the copy. The contract cause of action for enforcement of the non-alienation clause is therefore preempted.

Note that this result follows regardless of whether the possessor of the software copy is the owner of that copy. If the possessor\footnote{17 U.S.C. §§ 302-304.} is the owner of the copy, then the state law purports to grant the copyright owner rights beyond those assigned by the Copyright Act. If the possessor\footnote{Id. §§ 501-505.} is not the owner of the copy, the state-law right is to some extent redundant with the federal rights: unauthorized distribution will both infringe copyright and be a breach of contract. But this sort of state-law right too must fall to the preemptive effect of section 301(a), as it too has the capacity to interfere with the federal scheme.

For one thing, the contractual proscription on unauthorized distribution is perpetual in duration, contrary to the federal scheme.\footnote{Id. For a critique of the majority opinion in Bowers, see David A. Rice, Copyright and Contract: Preemption After Bowers v. Baystate, 9 ROGER WILLIAMS U. L. REV. 595, 617-34 (2004).} For another, the state-law remedial scheme may be inconsistent with the remedies prescribed in the Copyright Act.\footnote{17 U.S.C. §§ 302-304.}

Thus, even if the software publisher set up a distribution system consisting of the bona fide rental, rather than sale, of the disks
containing the computer programs, a contractual restriction on alienation of the disks would still be preempted.366 The copyright owner’s only remedy—not one to be trifled with, featuring statutory damages of up to $150,000 per infringement367—would be that provided by the Copyright Act.

D. Conflicts preemption of contractual restraints on alienation

Coexisting with preemption based on direct conflict between state law and the Copyright Act,368 founded upon the Supremacy Clause,369 this sort of preemption occurs to the extent state law “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.”370

Prior to the 1976 Act, this was the only species of preemption that could be invoked to invalidate a state law conflicting with federal copyright law, since the earlier federal statutes did not

366. The House Report accompanying the 1976 Copyright Act states that the first-sale rule “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.” HOUSE REPORT, supra note 11, at 79. It would be incorrect to read into this language anything beyond a statement of the effect of section 109(a): the language means no more than that the first-sale rule of section 109(a) does not make such a contract unenforceable. This statement does not address whether a contract purporting to prevent the owner of a software copy from selling or giving it to someone else is unenforceable for some other reason, such as because it is preempted by section 301 (or because unconscionable, contrary to public policy, constituting copyright misuse, or on any other ground).


368. The general conflicts preemption retains its vitality despite Congress’s enactment of a specific preemption provision in section 301(a). See Capital Cities Cable, Inc. v. Crisp, 467 U.S. 691, 715-16 (1984) (holding state law banning television commercials for alcoholic beverages conflicts with the Copyright Act, as well as other federal law, and is therefore preempted); Orson, Inc. v. Miramax Film Corp., 189 F.3d 377, 386-87 (3d Cir. 1999) (en banc) (holding state law regulating distribution of motion picture films is preempted). See also Charles R. McManis, Intellectual Property Protection and Reverse Engineering of Computer Programs in the United States and the European Community, 8 HIGH TECH. L.J. 25, 89 (1993) (“Of course, the inclusion of an express statutory preemption provision in the 1976 Copyright Act does not necessarily preclude a finding of preemption under the implied Supremacy Clause test articulated in [Sears, Roebuck, & Co. v. Stiffel, 376 U.S. 225 (1964), and Compco Corp. v. Day-Brite Lighting, Inc., 376 U.S. 234 (1964)].”); O’Rourke, supra note 353, at 534 (“Even if a particular cause of action survives a § 301 preemption analysis, it still must be evaluated for consistency with constitutional concerns because it still may be preempted if it stands as an obstacle to the accomplishment of the full purposes and objectives of Congress.”) (internal quotation and footnote omitted).

369. U.S. CONST. art. VI, cl. 2.

contain an explicit preemption provision like the current section 301(a). Thus, in the Sears and Compco cases, the Supreme Court applied this form of analysis to hold that state law is preempted to the extent it purports to prevent copying of an article that is unprotected by either patent or copyright, and is therefore in the public domain. Subsequently, in Goldstein v. California, the Court followed a divergent approach in upholding a state law prohibiting the unauthorized copying of a sound recording. In a decision that has been much criticized for failing to appreciate the balancing implicit in the Copyright Act, the Court found that the absence from the Act of any protection for sound recordings should be interpreted as an expression of Congress’s intent that the states were free to legislate in the area. In Kewanee Oil Co. v. Bicron Corp., the Court likewise upheld a state statute against a preemption challenge, concluding that a state trade-secret law did not conflict with the federal patent laws. Similarly, in Aronson v. Quick Point Pencil Co., the Court relied upon Kewanee to hold that a contract requiring payment of royalties for the right to use an invention that was not patented did not conflict with the patent laws, and was therefore not preempted. Finally, in Bonito Boats, Inc. v. Thunder Craft Boats, Inc., the Court reaffirmed the approach it had applied in Sears and Compco, holding that a state law prohibiting the copying of a boat-hull design was preempted because it conflicted with the patent laws.

Commentators have found it difficult to reconcile this series of copyright and patent preemption cases. However, it appears

371. See Sears, Roebuck & Co., 376 U.S. at 232-33 (“[B]ecause of the federal patent laws a State may not, when the article is unpatented and uncopyrighted, prohibit the copying of the article itself or award damages for such copying.”); Compco Corp., 376 U.S. at 237 (“[W]hen an article is unprotected by a patent or a copyright, state law may not forbid others to copy that article.”).


373. Id. at 570-71.


375. The Copyright Act did not protect sound recordings until 1972. The sound recordings at issue in the case were created before 1972, and thus were unprotected by federal law. Goldstein, 412 U.S. at 551-52.


377. Id. at 491-93.


379. Id. at 265-66.


381. Id. at 165-68.

382. See Thomas F. Cotter, Is This Conflict Really Necessary?: Resolving an
warranted to derive from these cases the rule that while a state law is not preempted merely because it touches on subject matter within the scope of the copyright or patent laws, it is preempted if it directly conflicts with the federal statutory scheme.

Applying conflicts preemption, state contract law should be held preempted to the extent it allows enforcement of a contract provision prohibiting alienation of a copy of a copyrighted work. As discussed above, the first-sale doctrine's limitation on the public distribution right is an important element of the balance the Copyright Act seeks to achieve between the interest of authors in receiving economic rewards for their creative activity, and the interest of the public in access to the fruits of that creative activity. Moreover, if a copyright owner may by contract expand the scope of its distribution right, it may do the same with respect to all of the exclusive rights.

This conclusion follows even more strongly with respect to a contractual restraint on alienation of a software copy that is implemented via a clickwrap agreement. As noted above, the provisions of a clickwrap agreement, although they have the form of contractual terms, are functionally equivalent to servitudes that run with the software copy. Such a servitude is inconsistent with the first-sale doctrine, the purpose of which is to deprive the copyright owner of control over disposition of a software copy once a first sale has occurred.

Consider a hypothetical "license agreement" that is shrinkwrapped to a book, and is made binding on a purchaser (whom the book publisher would call a "licensee") of the book who fails to return the book after having an opportunity to review the terms of the license. The agreement provides that the purchaser-licensee (1) may not make any copy of the book, (2) may not quote any brief excerpt from the book for purposes of criticism or commentary, (3) may not copy the book’s appendix, consisting of a chronological list of

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383. See supra text accompanying notes 266-79.

384. See supra text accompanying notes 160-61.

385. The idea of limiting by contract the uses that may be made of a book is not a new one. See, e.g., Harrison v. Maynard, Merrill & Co., 61 F. 689 (2d Cir. 1894) (sale of damaged books under contract requiring them to be used as paper stock only); Authors & Newspapers Ass'n v. O'Gorman Co., 147 F. 616 (D.R.I. 1906) (notice inside cover of book, prescribing a resale price, and forbidding resale before a certain date); Ladd v. Oxnard, 75 F. 703 (C.C.D. Mass. 1896) (book transferred under contract providing that it is a loan, not a sale); Jewelers' Mercantile Agency, Ltd. v. Jewelers' Weekly Pub. Co., 49 N.E. 872 (N.Y. 1898) (contract providing that title to a guidebook remains in the publisher).
the presidents of the United States, (4) may not resell the book, (5) may not recite passages from the book in any setting, and (6) may not display any pages of the book in a venue open to the public.

Each of these provisions of the contract purports to broaden the exclusive rights beyond their scope as established in the Copyright Act. Thus, provision (1) expands the reproduction right by disallowing certain copying that the Act permits. Provision (2) expands the reproduction right by eliminating the fair-use doctrine. Provision (3) extends copyright protection to material that the Act does not protect. Provision (4) expands the distribution right beyond the first sale of the copy. Provision (5) expands the performance right beyond the scope the Act gives it. Provision (6) expands the display right beyond its prescribed scope. In addition, each of these provisions extend the exclusive rights beyond the duration of copyright that the Act establishes, making them perpetual.

Allowing enforcement of such contractual provisions under state law would create "an obstacle to the accomplishment and execution of the full purposes and objectives of Congress," and should therefore be preempted.

E. Contractual restrictions in software license agreements may be unenforceable for lack of consideration

Some "license agreements" accompanying software in mass-market transactions are unenforceable for another reason as well. As explained above, the term "license agreement" is for the most part a misnomer. These agreements purport to consist of a set of undertakings, to which two parties, usually the software publisher and the end user, have assented. The publisher grants the end user a license to use the software, by installing it on the user's computer, and usually also grants a license to make a backup copy of the software. The end user, for her part, agrees to a great number of limitations of her rights, such as forgoing the right to bring a court action based on conduct relating to the agreement, being limited

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387. Id. § 107.
390. Id. § 110.
391. Id. § 109(c).
392. See id. §§ 302-04.
394. See supra note 79.
instead to arbitration.

As the discussion in Part I of this Article shows, however, the software publisher's undertaking is illusory. Since the end user is "the owner of a copy of [the] computer program," section 117(a) means she needs no authorization from the copyright owner either to install the software on her machine or to make a backup copy of it.395 In many "license agreements" accompanying consumer software, this is the only undertaking by the software publisher. Since this undertaking gives the end user nothing that she does not already have, it amounts to no consideration. Absent such consideration, the promises attributed to the end user are unenforceable.

CONCLUSION

Claims by software publishers that they retain ownership of the floppy diskettes and CD-ROMs on which they distribute their copyrighted software are generally not supportable. In ordinary mass-market transfers of their products to end users, software publishers part with title to those material objects when they release them into the chain of distribution. Title passes from the publisher, through one or more levels of distributors, to the retailer, and then to the end user. Title likewise generally passes when the software publisher distributes software through a transaction directly with the end user, and when it distributes the software as part of a hardware/software system.

The strategies that software publishers use in an effort to prevent this transfer of title are ineffective. A statement in the license agreement accompanying the software to the effect that the software is licensed, not sold, cannot affect ownership of the material object on which the software is distributed. Contractual restrictions on the authority of a distributor to transfer copies are generally ineffective. Use restrictions that run with the software copy itself are disfavored at common law, and are inconsistent with the first-sale doctrine.

Software publishers could attain their objective of preventing the end user from obtaining ownership of material objects containing their software by two expedients—a bona fide regime of software copy rental rather than sale, or keeping the software safely on one's own servers by following the application service provider model. However, a bare statement that the disks are rented, not sold, will not suffice, as a court will look through the style of a transaction to ferret out the underlying economic realities. The ASP model is a legally unassailable method by which a software publisher may extend its control over its products, and whether to employ it is a

matter for a software publisher's business judgment.

Efforts by software publishers to extend their control over software copies through contractual restrictions are likewise ineffective. Under both the Copyright Act's preemption provision, and general conflicts analysis, state law should be held preempted to the extent it allows enforcement of contractual provisions that limit a software acquirer's authority to dispose of software copies that she owns.