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The Generativity of Sony v. Universal: The Intellectual Property Legacy of Justice Stevens

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INTRODUCTION

United States Supreme Court Justice John Paul Stevens is best known in the intellectual property ("IP") field for his decision for the Court in *Sony Corp. of America v. Universal City Studios, Inc.*—his most cited IP opinion. It is also among the most significant IP decisions rendered by the Court during the three decades of Justice Stevens's tenure there because of its impact on the copyright and information technology industries. While *Sony* is known mainly for the safe harbor from copyright challenges that it established for technologies suitable for substantial non-infringing uses, this Article discusses the generativity of the *Sony* decision, that is, the impact the decision has had in a range of cases presenting very different facts and legal issues than the Court faced in *Sony*. This Article asserts that

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* Richard M. Sherman Professor of Law and Information Management, University of California at Berkeley. I am grateful to Abner Greene and his colleagues at Fordham Law School for organizing an excellent symposium on Justice John Paul Stevens's jurisprudence, to Alison Watkins and Jennifer Lane for research assistance, and to Microsoft Corp. for its support for research conducted by scholars of the Berkeley Center for Law and Technology.


2. As of January 22, 2006, *Sony* had been cited in 500 subsequent court decisions and 1702 law review articles. None of Justice Stevens's other eight intellectual property (“IP”) opinions for the Court has anywhere near this volume of citations. *Parker v. Flook*, 437 U.S. 584 (1978), is the next most cited of his IP decisions with citations in sixty-two subsequent cases and 307 law review articles as of January 22, 2006. The ruling in *Flook*—that a computer program algorithm does not become patentable subject matter by adding to the claim well-known post-solution activity—has been effectively overruled by subsequent decisions of the Court of Customs and Patent Appeals and the Court of Appeals for the Federal Circuit. See, e.g., Pamela Samuelson, Benson Revisited: The Case Against Patent Protection for Algorithms and Other Computer Program-Related Inventions, 39 Emory L.J. 1025 (1990).

3. The Court decided forty-eight IP cases between 1975 and 2005. *Sony* was the twelfth most cited IP decision from this era in subsequent case law and the most widely cited Supreme Court IP decision in law review literature, as of September 15, 2005. The significance of *Sony* for IP law is discussed at length later in this Article. See infra Part III.

4. *Sony*, 464 U.S. at 442; see infra Part II.

5. I have borrowed the metaphor of generativity from Jonathan Zittrain. See Jonathan L. Zittrain, *The Generative Internet*, 119 Harv. L. Rev. (forthcoming May 2006). I acknowledge that my use of this term is distinct from Zittrain's, but I found the term redolent for the purposes of this Article.
Sony’s generativity is due, in part, to the limited monopoly framework for analyzing copyright claims articulated by Justice Stevens in Sony. This framework stands in stark contrast to the proprietarian framework used in Justice Harry Blackmun’s dissent. To put Justice Stevens’s Sony opinion in a larger perspective, Part I of this Article reviews the principal trends in IP law during Justice Stevens’s tenure on the Supreme Court and how the Court’s IP decisions from this period have both contributed to and counteracted these trends. It will set forth the principal themes of Justice Stevens’s IP jurisprudence and discuss the role he has played in the Court’s IP rulings. Perhaps owing to his background as an antitrust lawyer, Justice Stevens views IP law as a limited statutory monopoly that must serve the public interest. He is skeptical of efforts by rights holders to extend their monopolies beyond the bounds set by the legislature. He takes seriously public policy limitations on the scope of IP rights and invokes constitutional values such as promoting public access to knowledge in explaining why IP rights should be limited in scope and breadth. Part II shows how the limited statutory monopoly conception of IP law manifested itself in Justice Stevens’s opinion in Sony and sharply contrasts it to Justice Blackmun’s dissent. Part III demonstrates the generativity of the Sony decision, showing its influence on subsequent cases involving very different fact patterns than Sony. Software reverse engineers, add-on software developers, Internet service and access providers, and Internet search engine firms have all relied on Sony in successfully defending against direct and indirect claims of copyright infringement. Finally, I conclude that the Sony decision is the most significant legacy of Justice Stevens in the field of IP law and its significance is likely to continue in mediating disputes between copyright industries and creative information technology developers and users of information technology.

I. IP TRENDS AND THE SUPREME COURT: 1975 TO 2005

Justice John Paul Stevens has served on the United States Supreme Court since 1975. During his thirty-one years on the Court, IP law has become an increasingly significant form of economic regulation and a prominent field of law and policy. The principal trend during this period has been

6. See Sony, 464 U.S. at 457-500 (Blackmun, J., dissenting); see also infra Part II.
8. Id.
that IP rights have become stronger and broader.\textsuperscript{10} Although Congress has been an important actor in strengthening and broadening IP rights,\textsuperscript{11} the Supreme Court has also contributed to this trend. By ruling that genetically engineered life forms and computer program-related inventions were patentable, for example, the Court has had profound effects on the U.S. biotechnology and computer software industries.\textsuperscript{12} Authors, trademark owners, celebrities, and plant breeders have also benefited from Supreme Court rulings that either expansively interpreted their rights or rejected defenses aimed at narrowing their rights.\textsuperscript{13} This Article refers to decisions by the Court that strengthened or broadened IP rights or rejected narrow interpretations of IP rights as “higher” protection decisions.

Yet, interestingly enough, the Supreme Court has limited the scope of IP rights even more frequently than it has expanded them, particularly in the last fifteen of these thirty years.\textsuperscript{14} A notable example of considerable economic significance was \textit{Feist Publications, Inc. v. Rural Telephone}


\textsuperscript{12} See Diamond \textit{v. Diehr}, 450 U.S. 175 (1981) (holding that a rubber curing process utilizing a computer program was patentable); Diamond \textit{v. Chakrabarty}, 447 U.S. 303 (1980) (holding that genetically engineered life forms were patentable subject matters).


\textsuperscript{14} See, e.g., \textit{Asgrow Seed Co. v. Winterboer}, 513 U.S. 179 (1995) (narrowly construing a provision allowing farmers to save and sell protected seeds). Particularly noteworthy are the four occasions in which the Court rejected First Amendment challenges in IP cases. See \textit{Eldred v. Ashcroft}, 537 U.S. 186 (2003) (holding that Congress did not violate the First Amendment when enacting copyright term extension legislation); \textit{S.F. Arts \& Athletics, Inc. v. U.S. Olympic Comm.}, 483 U.S. 522 (1987) (holding that the U.S. Olympic Committee did not violate the First Amendment in deciding not to allow a group to use the term “Gay Olympics” for a sporting event); \textit{Harper \& Row, Publishers, Inc. v. Nation Enters.}, 471 U.S. 539 (1985) (holding that a news magazine did not have a First Amendment right to print excerpts from former President Gerald Ford’s memoirs); \textit{Zacchini v. Scripps-Howard Broad. Co.}, 433 U.S. 562 (1977) (holding that the First Amendment did not immunize a TV broadcaster from publicity rights claims by a performer).

\textsuperscript{15} From 1975 to 1990, the Court adopted a higher protection rule more frequently than a lower protection rule. (By my reckoning, thirteen cases adopted a higher protection rule, while seven adopted a lower protection rule, and three cases cannot be understood in these terms.) Between 1990 and 2005, however, the Court has more frequently ruled for the lower protection rule. (By my reckoning, the Court has ruled in favor of a lower protection position in sixteen cases in the past fifteen years, while a higher protection rule was adopted in seven cases; four cases cannot be understood in these terms.) Totaling the cases, I count twenty higher protection decisions and twenty-three lower protection decisions among the forty-eight IP decisions rendered by the Court in this period.
Service, in which the Supreme Court ruled that white pages listings of telephone directories lacked sufficient originality to qualify for copyright protection.\textsuperscript{16} The Register of Copyrights characterized \textit{Feist} as having "dropped a bomb" on U.S. copyright law\textsuperscript{17} because it upset settled expectations of publishers of directories and databases who had long relied on "sweat of the brow" copyright case law.\textsuperscript{18}

Numerous other rulings by the Supreme Court narrowed the scope of patent and trade dress rights or made them more vulnerable to challenges.\textsuperscript{19} In five of the seven cases construing statutory exceptions or limitations on IP rights, such as the fair use provision,\textsuperscript{20} the Court gave a more expansive interpretation to the exception than the IP claimant had hoped.\textsuperscript{21} This Article speaks of decisions that narrowed IP rights or construed exceptions or limitations more broadly than IP claimants had wanted as "lower" protection decisions.

Justice Stevens has played an active role in the Court's IP jurisprudence during these years. He wrote opinions in twenty-one of the forty-eight IP cases decided by the Court during these three decades;\textsuperscript{22} seven for the

\begin{itemize}
  \item 16. \textit{Feist Publ'ns, Inc. v. Rural Tel. Serv.}, 499 U.S. 340 (1991). \textit{Feist} is the third most frequently cited of the Supreme Court's IP decisions in the past thirty years and the second most frequently cited case in the law review literature.
  \item 18. See, e.g., \textit{Leon v. Pac. Tel. & Tel. Co.}, 91 F.2d 484 (9th Cir. 1937) (holding that a reverse telephone directory is infringing).
  \item 21. See \textit{Merck KGaA v. Integra Lifesciences I, Ltd.}, 125 S. Ct. 2372 (2005) (construing the experimental use exception); \textit{KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.}, 543 U.S. 111 (2004) (holding that the burden of proof on a trademark fair use issue was on the trademark owner); \textit{Quality King Distrbts., Inc. v. L'Anza Research Int'l, Inc.}, 523 U.S. 135 (1998) (holding that the first-sale doctrine limited the scope of an importation right); \textit{Campbell v. Acuff-Rose Music, Inc.}, 510 U.S. 569 (1994) (holding that a rap parody version of \textit{Roy Orbison's "Pretty Woman"} was a fair use); \textit{Sony Corp. of Am. v. Universal City Studios, Inc.}, 464 U.S. 417 (1984) (holding personal use copying of programs from broadcast TV to be fair use; and that there is no secondary liability based on the sale of technology with substantial non-infringing uses). The two decisions in which the higher protection interpretation of an exception or limitation on IP rights was upheld are \textit{Asgrow Seed Co. v. Winterboer}, 513 U.S. 179 (1995) (construing a farmer seed sale privilege narrowly), and \textit{Harper & Row, Publishers, Inc. v. Nation Enterprises}, 471 U.S. 539 (1985) (finding no fair use exception for publication of excerpts from forthcoming presidential memoirs).
  \item 22. Seventeen of the forty-eight IP decisions were patent cases, sixteen were copyright cases, twelve were trademark cases, and five involved other claims (such as rights of publicity, antitrust, or plant variety protection). Twenty-seven of these cases (or 56\%) were decided unanimously, seventeen of which favored the lower protection position. Of the twenty-eight IP cases it has heard in the past fifteen years, the Court has been unanimous in nineteen (or 68\%). If one excludes the \textit{Florida Prepaid} cases (on grounds that they are more federalism than IP cases), the unanimous rate in the past fifteen years rises to 73\%. Yet, the
Court, three concurrences, and eleven dissents. No Justice in the past thirty years has come close to writing as many opinions in IP cases as Justice Stevens.

The next most common vote pattern in the Court’s IP decisions during Justice Stevens’s tenure was 5-4 splits (17%). Justice Stevens dissented in five of the eight cases during these years in which there was a 5-4 split. Three other cases were 8-1 splits. Justice Stevens was the lone dissenter in all three. Of the four cases involving 7-2 splits, Justice Stevens dissented in three. Yet of the five cases involving 6-3 splits, he dissented in only one of them. Justice Stephen Breyer has been a fellow dissenter of Justice Stevens in seven of the eight split vote cases in the past fifteen years. For the purposes of this Article, a case was included as an IP case if it involved interpretation of IP law, legislative history about an IP law, or IP policy. For example, Broadcast Music, Inc. v. Columbia Broadcasting System, Inc., 441 U.S. 1 (1979), is, strictly speaking, an antitrust case, but since it discusses copyright law and policy at some length, I include it as a copyright case. Similarly, the Florida Prepaid cases are included as respectively patent and trademark rulings because they considered congressional deliberations about whether states should have immunity from patent and trademark damage awards by federal courts. See Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd. (Florida Prepaid II), 527 U.S. 666 (1999) (holding states immune from trademark infringement damage awards); Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank (Florida Prepaid I), 527 U.S. 627 (1999) (holding states immune from patent infringement damage awards). The Court was also evenly split in two cases—both involving computer programs—and consequently affirmed lower court rulings without setting precedent. See Lotus Dev. Corp. v. Bollard Int’l, Inc., 140 F.3d 70 (1st Cir. 1998) (holding that copyright protection for computer programs did not extend to command hierarchy of user interface), aff’d by an equally divided Court, 516 U.S. 233 (1996); In re Bradley, 600 F.2d 807 (C.C.P.A. 1979) (holding a computer program data structure to be patentable), aff’d by an equally divided Court sub nom., Diamond v. Bradley, 450 U.S. 381 (1981). Based on my assessment of his pro-competition policy stance in other IP cases, I believe that Justice Stevens, who recused himself in the latter case, would have voted to affirm the First Circuit’s decision had he participated in deliberations in the Lotus case. He would also have been among the four “no” votes in the Bradley case. See infra notes 30-60 and accompanying text.


26. Of the other Justices on the Court, the next most prolific in IP cases has been Justice Antonin Scalia who wrote seven IP opinions for the Court, four concurrences, and one dissent. Yet, two of Justice Scalia’s opinions for the Court were in the Florida Prepaid cases which are more reflective of the Court’s federalism jurisprudence than its IP
Like Justice William O. Douglas whom he succeeded, Justice Stevens has been among the most consistent IP “minimalists” on the Court. Indeed, the only two cases in which Justice Stevens would have granted more extensive IP protection than a majority of the Court were the Florida Prepaid cases which considered whether states were immune from damage lawsuits for patent or trademark infringement. To lay the groundwork for articulating characteristic themes of Justice Stevens’s IP jurisprudence, the remainder of this part will discuss five opinions in which he explained why certain computer program-related inventions were not patentable, why an inventor who predisclosed his invention to a prospective purchaser lost patent protection for it, why makers of shampoo lacked the right to control importations of bottles with copyrighted labels, why firms adopting descriptive names for their services should not be eligible for lower protection decisions. In her twenty-four years on the Court, Justice Sandra Day O’Connor wrote six opinions for the Court in IP cases, one concurrence, and no dissents.

27. Among Justice William O. Douglas’s decisions that are fairly characterized as lower protection decisions are: Gottschalk v. Benson, 409 U.S. 63 (1972) (holding an algorithm for transforming numbers from binary coded decimals to pure binary form to be unpatentable); Funk Bros. Seed Co. v. Kalo Inoculant Co., 333 U.S. 127 (1948) (striking patent as invalid); Cuno Engineering Corp. v. Automatic Devices Corp., 314 U.S. 84, 91 (1941) (endorsing a “flash of creative genius” standard for inventions).

28. By IP “minimalists,” I mean Justices who tend to vote for the lower protection position in IP cases coming before the Court. For a discussion of lower and higher protection IP decisions, see supra note 15 and accompanying text. The only respect in which Justice Stevens has not been as much of an IP minimalist as Justice Douglas has been in his reactions to First Amendment defenses in the four IP cases that raised them. See Eldred, 537 U.S. 186 (holding that Congress did not violate the First Amendment when enacting copyright term extension legislation); S.F. Arts & Athletics, Inc. v. U.S. Olympic Comm., 483 U.S. 522 (1987) (holding that the U.S. Olympic Committee did not violate the First Amendment in deciding not to allow a group to use the term “Gay Olympics” for a sporting event); Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539 (1985) (holding that a news magazine did not have a First Amendment right to print excerpts from Gerald Ford’s forthcoming memoirs); Zacchini, 433 U.S. 562 (holding that the First Amendment did not immunize a TV broadcaster from publicity rights claims by a performer). Although Justice Stevens dissented in Zacchini, he did so on grounds that the Ohio courts should have an opportunity to clarify the basis of their ruling, not on First Amendment grounds, id. at 582-83 (Stevens, J., dissenting), as Justice Lewis Powell’s dissent did, id. at 579-82 (Powell, J., dissenting). His dissent in Eldred would have struck down the Copyright Term Extension Act as unconstitutional under Article I, Section 8, Clause 8, of the Constitution, not under the First Amendment. Eldred, 537 U.S. at 222-23 (Stevens, J., dissenting). Justice Douglas would have been more receptive than Justice Stevens to the First Amendment defenses, especially in the San Francisco Arts & Athletics and Harper & Row cases.

29. A majority of the Court in these cases ruled that the Eleventh Amendment to the Constitution precluded lawsuits against state entities for patent or trademark infringement. See Florida Prepaid I, 527 U.S. 627; Florida Prepaid II, 527 U.S. 666. Justice Stevens would have upheld the rights of patentees and trademark owners to sue in federal court for monetary relief against state entity infringers. See Florida Prepaid I, 527 U.S. at 649 (Stevens, J., dissenting); Florida Prepaid II, 527 U.S. at 691-93 (Stevens, J., dissenting). The literature on the Supreme Court’s federalism decisions and its controversial interpretation of the Eleventh Amendment has been explored in an extensive literature, to which this Symposium contributes. See, e.g., David J. Barron, Fighting Federalism with Federalism: If It’s Not Just a Battle Between Federalists and Nationalists, What Is It?, 74 Fordham L. Rev. 2081 (2006).
"incontestable" status for the names as trademarks, and why Congress should not have the power to extend the terms of existing IP rights. Justice Stevens's first IP opinion for the Court was *Parker v. Flook*, which held a computer program-related invention to be unpatentable.\textsuperscript{30} *Flook* relied heavily on Justice Douglas's opinion for a unanimous Court in *Gottschalk v. Benson*\textsuperscript{31} that decided that an algorithm for transforming binary coded decimals to pure binary form was not a patentable process. *Benson* "[r]eason[ed] that an algorithm, or mathematical formula, is like a law of nature, [and] applied the established rule that a law of nature cannot be the subject of a patent."\textsuperscript{32} Justice Stevens regarded this ruling as sound, saying in *Flook* that "[t]he notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance."\textsuperscript{33} Three years later, Justice Stevens wrote a vigorous dissent when a majority of the Court decided, by a 5-4 vote, that process claims for computer program-related innovations should be viewed as a whole. This decision upheld the patentability of a rubber-curing process, the only novel element of which was a computer program that continuously calculated temperatures inside the mold.\textsuperscript{34}

\[\text{\textsuperscript{30}} \text{ Parker v. Flook, 437 U.S. 584 (1978).} \]
\[\text{\textsuperscript{31}} \text{ 409 U.S. 63 (1972).} \]
\[\text{\textsuperscript{32}} \text{ Flook, 437 U.S. at 589.} \]
\[\text{\textsuperscript{33}} \text{ Id. at 590. "A competent draftsman could attach some form of post-solution activity to almost any mathematical formula; the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques." Id.} \]
\[\text{\textsuperscript{34}} \text{ Diamond v. Diehr, 450 U.S. 175 (1981); id. at 193 (Stevens, J., dissenting, joined by Brennan, Marshall, and Blackmun, JJ.). Justice Stevens gave three reasons why I cannot accept the Court’s conclusion that Diehr and Lutton claim to have discovered a new method of constantly measuring the temperature inside a mold. First, there is not a word in the patent application that suggests that there is anything unusual about the temperature-reading devices used in this process—or indeed that any particular species of temperature-reading device should be used in it. Second, since devices for constantly measuring actual temperatures—on a back porch, for example—have been familiar articles for quite some time, I find it difficult to believe that a patent application filed in 1975 was premised on the notion that a process of constantly measuring the actual temperature had just been discovered. Finally, the Patent and Trademark Office Board of Appeals expressly found that the only difference between the conventional methods of operating a molding press and that claimed in [the] application rests in those steps of the claims which relate to the calculation incidental to the solution of the mathematical problem or formula used to control the mold heater and the automatic opening of the press. This finding was not disturbed by the Court of Customs and Patent Appeals and is clearly correct. Id. at 207-08 (internal quotations omitted). Yet, Justice Stevens was not a knee-jerk low protectionist as to patentable subject matter, for he voted with a majority of the Court when it ruled, also by a 5-4 vote, that genetically engineered life forms were patentable subject matter over an objection that Congress had not contemplated life forms as patentable subject matter. See Diamond v. Chakrabarty, 447 U.S. 303 (1980).} \]
All of the other decisions Justice Stevens wrote for the Court were, like *Flook*, cases in which the lower protection position prevailed.\(^{35}\) *Pfaff v. Wells Electronics, Inc.*\(^{36}\) and *Quality King Distributors, Inc. v. L'Anza Research International, Inc.*\(^{37}\) are characteristic. *Pfaff* interpreted a patent law provision requiring inventors to file for patent protection within a year of engaging in certain activities such as selling products embodying the invention.\(^{38}\) Pfaff disclosed his invention to Texas Instruments ("TI") more than a year before his patent application in the hope that TI would order products embodying the invention. Pfaff argued that his invention was not complete until it was reduced to practice several months after this disclosure, and so his patent filing fell within the one-year grace period. The Court unanimously decided that Pfaff's invention was substantially complete when he accepted an order from TI shortly after the disclosure, which resulted in invalidating the patent. Justice Stevens characterized this patent rule as "a limiting provision . . . [intended to] confin[e] the duration of the monopoly to the statutory term,"\(^{39}\) that served the public "interest in avoiding monopolies that unnecessarily stifle competition."\(^{40}\) Wells Electronics was one of the competitors entitled to practice the invention because of Pfaff's unjustified delay in filing the patent.

*Quality King* raised the question of whether copyright law's exclusive right to control importation of protected works was limited by copyright's first sale rule.\(^{41}\) The Court unanimously concluded that it was. Justice Stevens wrote, "The whole point of the first sale doctrine is that once the copyright owner places a copyrighted item in the stream of commerce by selling it, he has exhausted his exclusive statutory right to control its distribution."\(^{42}\) Justice Stevens pointed out that *Quality King* was "an unusual copyright case" because the defendant was charged with copyright infringement not because it had copied L'Anza's copyrighted work—in this case, labels for bottles of shampoo—but only because it had imported the

\(^{35}\) Some might argue that *Mills Music, Inc. v. Snyder*, 469 U.S. 153 (1985), was not a lower protection decision. I believe it was because it rejected an authors' rights argument for greater legal protection. The case involved a dispute between a music publisher and the heirs of a composer about the distribution of income generated from a sound recording created prior to the adoption of the Copyright Act of 1976. The 1976 Act allowed authors or their heirs to terminate previous transfers, such as Snyder's assignment of copyright in the musical work "Who's Sorry Now?" to Mills. Snyder's heirs argued that the termination of transfer provision was intended to benefit authors and they should, therefore, be able to get royalties received by Mills. The Court decided that a termination of transfer did not affect the contractual rights of owners of copyrights in authorized derivative works and publishers such as Mills. Justice Stevens dissented from a pro-authors' rights decision of the Court in *Stewart v. Abend*, 495 U.S. 207 (1990), on a similar question.


\(^{38}\) See *Pfaff*, 525 U.S. at 57 (discussing 35 U.S.C. § 102(b) (1994)).

\(^{39}\) *Id.* at 64.

\(^{40}\) *Id.* at 63.

\(^{41}\) *Quality King*, 523 U.S. at 138 (statement of question presented); see 17 U.S.C. §§ 106, 109, 602 (2000).

\(^{42}\) *Quality King*, 523 U.S. at 152.
shampoo lawfully purchased abroad. Justice Stevens observed that “L’Anza is primarily interested in protecting the integrity of its method of marketing the products to which the labels are affixed.” This was not the kind of interest copyright law was intended to protect.

On three occasions, Justice Stevens was the lone dissenter for lower protectionist positions. In Park ‘N Fly, Inc. v. Dollar Park and Fly, Inc., for example, Justice Stevens took issue with the Court’s conclusion that a descriptive mark should be insulated from challenge once it had obtained “incontestable” status. Trademark law did not define this term, he noted, and in at least twenty situations, an “incontestable” mark could, in fact, be contested. “There is a well-recognized public interest,” he said, “in prohibiting the commercial monopolization of phrases such as ‘park and fly.’” Such language, he added, “belongs to the public unless Congress instructs otherwise,” which he believed it had not on this issue.

One of Justice Stevens’s most impassioned lower protectionist opinions is his dissent from the Court’s decision to uphold the constitutionality of the Copyright Term Extension Act (“CTEA”) in Eldred v. Ashcroft. Web-
based publisher Eric Eldred challenged the retroactive grant of twenty additional years of exclusive rights for copyrights in existing works, arguing that the Constitution forbids a grant of exclusive rights without a quid pro quo of a newly original work to justify it; Eldred also argued that the lengthened copyright terms were virtually perpetual in violation of the “limited times” provision of the Constitution.\textsuperscript{52}

In Justice Stevens’s view, the “limited [t]imes” requirement “serves the ultimate purpose of promoting the ‘Progress of Science and useful Arts’ by guaranteeing that those innovations will enter the public domain as soon as the period of exclusivity expires.”\textsuperscript{53} Public access to creative work is, in his view, “the ultimate purpose” of Article I, Section 8, Clause 8.\textsuperscript{54} Consequently, members of the public, such as Eldred, “were entitled to rely on a promised access to copyrighted or patented works at the expiration of the terms specified when the exclusive privileges were granted.”\textsuperscript{55} Retroactive extension of IP rights serves “[n]either the purpose of encouraging new [innovations] nor the overriding interest in advancing progress by adding knowledge to the public domain.”\textsuperscript{56} The Court’s ruling treated “the public interest in free access to copyrighted works [as] entirely worthless”\textsuperscript{57} and gave authors a “windfall solely based on completed creative activity.”\textsuperscript{58} The Court’s reasoning would permit perpetual copyrights as long as copyright terms were extended whenever they were about to expire. “By failing to protect the public interest in free access to the products of inventive and artistic genius—indeed, by virtually ignoring the central purpose of the Copyright/Patent Clause—the Court has quit-claimed to Congress its principal responsibility in this area of the law.”\textsuperscript{59}

From these and others of his decisions, several themes of Justice Stevens’s IP jurisprudence are evident. Most evident is his characterization of IP rights as limited statutory monopolies, which must carefully balance the interests of innovators and those of the public. When Congress has not clearly expressed its intent to extend protection as far as a plaintiff would like, Justice Stevens tends to construe the monopoly right narrowly because of the impacts that broad rulings will have on competition, commerce, and public access to knowledge. Justice Stevens takes statutory limitations on exclusive rights of IP owners seriously and considers the impact of the Court’s ruling on the public’s interests, as well as on the parties to the lawsuits. Many of his decisions invoke the Copyright/Patent Clause (as he


\textsuperscript{53} \textit{Eldred}, 537 U.S. at 223 (Stevens, J., dissenting).

\textsuperscript{54} \textit{Id.} at 224.

\textsuperscript{55} \textit{Id.} at 240.

\textsuperscript{56} \textit{Id.} at 226.

\textsuperscript{57} \textit{Id.} at 241.

\textsuperscript{58} \textit{Id.}

\textsuperscript{59} \textit{Id.} at 242.
calls it) or constitutional values as important influences in the interpretive process. Yet, his decisions are informed by more than just the statutory language, legislative history, prior rulings, and constitutional theory; they are also grounded in practical realities. Nowhere are these themes more evident than in Justice Stevens’s opinion for the Court in *Sony v. Universal.*

II. *Sony v. Universal*

The first U.S. copyright case to challenge the sale of a technology designed for use to make copies of copyrighted works was initiated by Universal City Studios against Sony Corp. in 1976. Universal claimed that Sony sold Betamax machines, knowing or having reason to know that its customers would use these machines to make unauthorized copies of copyrighted programs, including those produced by Universal and its co-plaintiff Disney, in violation of the exclusive right of copyright owners to control the reproduction of their works. Sony's ads promoted the use of Betamax to “record [your] favorite shows” and “build a library,” and survey evidence showed that the primary use of Betamax machines was to make copies of programs for time-shifting purposes. The evidence also showed that more than forty percent of Betamax users had built libraries of programs taped from broadcast television.

Sony defended this lawsuit by asserting that its Betamax machines had many non-infringing uses, including copying programs whose copyright owners did not object and copying public domain materials. It also argued that time-shift copying was a fair use and that Congress had intended to exempt private use home taping from radio or TV from claims of copyright infringement. Sony argued that the non-infringing capabilities of Betamax should, as in patent law, insulate Sony from claims of contributory infringement.

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63. *Id.* at 423.
64. *Id.* at 483 n.35 (Blackmun, J., dissenting).
65. *Id.* at 443-47 (discussing authorized and unobjectionable uses).
66. *Id.* at 447-56 (discussing the fair use argument for time shifting). Justice Stevens’s opinion for the Court does not discuss the implied exemption for the private copying defense on which the trial court had ruled for Sony.
67. *Id.* at 439-42 (discussing the staple article of commerce limitation on contributory infringement in patent law under 35 U.S.C. § 271(c) (1982)).
In 1979, after a five-week trial, the trial court ruled in Sony’s favor. In 1981, the United States Court of Appeals for the Ninth Circuit reversed. It disputed the appropriateness of importing patent law’s “staple article of commerce” rule into copyright law, and held that time-shift copying of televised movies constituted infringement because such copying was a consumptive, rather than a productive, use of the copyrighted work. Because the primary use of Betamax machines was to facilitate copyright infringement and Sony knew that its customers were making infringing copies of copyrighted works, the Ninth Circuit held Sony responsible for these infringements. The Supreme Court accepted Sony’s petition for certiorari in 1982. The Court heard oral arguments in the Sony case in two separate terms, and finally issued its ruling in favor of Sony, by a 5-4 vote, in 1984.

Much is now known about the Court’s deliberations in this case because over the years, papers of some Justices have become publicly accessible. At the Court’s first conference on the case, the expectation was that Justice Blackmun would be writing a majority opinion upholding the Ninth Circuit. After Justice Stevens circulated a draft dissent explaining why he believed that making a single copy of a television program in the privacy of one’s home is not infringement, some Justices became receptive to the argument that time shifting was a fair use. Justice Stevens made a number of changes to his opinion in response to concerns expressed by other Justices. His revised opinion eventually attracted support from
Justices William Brennan, Sandra Day O'Connor, Warren Burger, and Byron White.\textsuperscript{80} Justices Thurgood Marshall, Lewis Powell, and William Rehnquist joined what became Justice Blackmun's dissent.\textsuperscript{81} The Stevens majority and Blackmun dissenting opinions are notable not simply for their differing interpretations of the legal issues presented by the case, but also for the very different frameworks they employ for analyzing copyright issues.

Justice Stevens began his analysis in \textit{Sony} with Article I, Section 8, Clause 8, of the Constitution which gives Congress the power "[t]o "Promote the Progress of Science and useful Arts, by securing for limited Times to Authors... the exclusive Right to their respective Writings..."\textsuperscript{82} The opinion next observed that "[t]he monopoly privileges that Congress may authorize are neither unlimited nor primarily designed to provide a special private benefit."\textsuperscript{83} The primary objective in granting authors and inventors a limited monopoly in their innovations is not to reward them for what they have produced, but to induce them to provide the public with "appropriate access to their work product."\textsuperscript{84} The task for Congress is to formulate a "difficult balance between the interests of authors and inventors in the control and exploitation of their writings and discoveries on the one hand, and society's competing interest in the free flow of ideas, information, and commerce on the other hand."\textsuperscript{85}

While copyright law had evolved over time in response to new technologies,\textsuperscript{86} a "recurring theme" of the Court's jurisprudence in new technology cases has been "[t]he judiciary's reluctance to expand the protections afforded by the copyright without explicit legislative guidance."\textsuperscript{87} After citing several cases in which the Court had rejected arguments for expansive protection when new technologies posed legal questions not contemplated by the legislature,\textsuperscript{88} the \textit{Sony} opinion went on to say that "[s]ound policy, as well as history, supports our consistent deference to Congress when major technological innovations alter the market for copyrighted materials."\textsuperscript{89} The reason was simple: "Congress

\begin{itemize}
\item \textsuperscript{80} Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984).
\item \textsuperscript{81} Id. at 457 (Blackmun, J., dissenting).
\item \textsuperscript{82} Id. at 428.
\item \textsuperscript{83} Id. at 429 (citing United States v. Paramount Pictures, Inc., 334 U.S. 131, 158 (1948); Fox Film Corp. v. Doyal, 286 U.S. 123, 127 (1932)).
\item \textsuperscript{84} Id.
\item \textsuperscript{85} Id.
\item \textsuperscript{86} Id. at 430.
\item \textsuperscript{87} Id. at 431.
\item \textsuperscript{88} Id.; Teleprompter Corp. v. Columbia Broad. Sys., Inc., 415 U.S. 394 (1974) (cable TV redistribution of broadcast signals was not a public performance of copyrighted programs); Fortnightly Corp. v. United Artists Television, Inc., 392 U.S. 390 (1968) (same); White-Smith Music Publ'g Co. v. Apollo Co., 209 U.S. 1 (1908) (piano rolls not "copies" of sheet music); Williams & Wilkins Co. v. United States, 487 F.2d 1345 (Ct. Cl. 1973), aff'd by an equally divided Court, 420 U.S. 376 (1975) (photocopying service for researchers not copyright infringement).
\item \textsuperscript{89} Sony, 464 U.S. at 431.
\end{itemize}
has the constitutional authority and the institutional ability to accommodate fully the varied permutations of competing interests that are inevitably implicated by such new technology. 

The next part begins with the observation that copyright law “does not expressly render anyone liable for infringement committed by another.”90 As Justice Stevens explains, however, the Court had upheld an indirect liability claim in Kalem Co. v. Harper Bros. as to the producer of “an unauthorized film dramatization of the copyrighted book Ben Hur... for his sale of the motion picture to jobbers, who in turn arranged for the commercial exhibition of the film.”92 Universal argued that “Kalem stands for the proposition that supplying the ‘means’ to accomplish an infringing activity and encouraging that activity through advertisement are sufficient to establish liability for copyright infringement.”93 This was, Justice Stevens opined, a “gross generalization that cannot withstand scrutiny.”94 Sony, after all, was not supplying infringing copies of copyrighted works to users of its Betamax machines. While it may be “manifestly just” to impose secondary liability upon a person who is “in a position to control the use of copyrighted works by others and ... authorized the use without permission from the copyright owner,” the Sony case “did not fall in that category.”95

Sony could only be held liable on the theory “that it has sold equipment with constructive knowledge that its customers may use that equipment to make unauthorized copies of copyrighted material.”96 There was, however, “no precedent in the law of copyright for the imposition of [secondary] liability on such a theory,”97 nor any basis in the copyright statute. Holding Sony liable on this theory would, Justice Stevens recognized, have significant impacts on other parties besides Universal, including copyright owners who favored use of Betamax machines to make time-shift copying of their programs, members of the public who wanted access to these technologies to make authorized and fair uses of them, and, of course, Sony and other technology developers who wanted to make and sell these technologies.98 “When a charge of contributory infringement is predicated entirely on the sale of an article of commerce that is used by the purchaser to infringe [an IP right], the public interest in access to that article of commerce is necessarily implicated.”99 By the time the Court heard oral

90. Id.
91. Id. at 434.
92. Id. at 435 (discussing Kalem Co. v. Harper Bros., 222 U.S. 55 (1911)).
93. Id. at 436.
94. Id.
95. Id. at 437-38.
96. Id. at 439.
97. Id.
98. Id. at 434-42. The Court pointed out that “copying of the respondents’ programs represents a small portion of the total use of [videotape recorders (“VTR’s”)].” Id. at 434.
99. Id. at 440.
argument again in *Sony* for the second time, 9.5 million American households had Betamax machines.\(^{100}\)

Justice Stevens observed that Congress had resolved a similar tension in patent law by providing that contributory liability could only be imposed on a technology developer when it makes and sells a device that has been "especially made or especially adapted for use in an infringement of [a] patent."\(^{101}\) Sales of staple articles of commerce, that is, technologies that are "suitable for substantial non-infringing use," are exempt from contributory liability in patent law.\(^{102}\) The public has a legitimate interest in having access to staple articles of commerce in order to enjoy them for their non-infringing uses.

Justice Stevens characterized as "extraordinary" Universal's suggestion that "the Copyright Act confers upon all copyright owners collectively, much less [on Universal and its co-plaintiff Disney], the exclusive right to distribute videotape recorders ("VTR's") simply because they may be used to infringe copyrights."\(^{103}\) This would stretch the limited monopoly granted in the Copyright Act beyond its statutory bounds.\(^{104}\) The *Sony* decision recognized that Congress had decided that selling staple articles of commerce should not constitute contributory patent infringement and concluded that "the sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes."\(^{105}\) Indeed, *Sony* stated, "it need merely be capable of substantial noninfringing uses."\(^{106}\)

Stevens's opinion then turned to whether the Betamax had and was capable of substantial non-infringing uses. Sony had produced evidence that many copyright owners did not object to time-shift copying of their programs and some had authorized time shifting.\(^{107}\) But the *Sony* opinion went on to explain why a majority of the Court concluded unauthorized time shifting was fair use.\(^{108}\) This use was fair, *Sony* opined, because it was private and noncommercial; because it merely allowed someone to watch at

100. Counsel for Sony led off his oral argument with this fact. Litman, *supra* note 76, at 940. The potential for statutory damages for which owners of Betamax machines might be liable if Universal's theory was accepted was staggering large. Justice Stevens was concerned about the potential for statutory damages against individuals. *Id.* at 930.


102. *Id.* For an informative discussion of the case law on the staple article of commerce rule, see 5 Donald S. Chisum, Chisum on Patents § 17.04 (2004) [hereinafter Chisum on Patents].

103. *Sony*, 464 U.S. at 441 n.21. By asking for injunctive relief, Universal sought to gain effective control over the sale of VTRs and to "declare [them] contraband." *Id.*

104. The Court recognized that "a finding of contributory infringement is normally the functional equivalent of holding that the disputed article is within the monopoly granted to the [rightsholder]." *Id.* at 441.

105. *Id.* at 442.

106. *Id.*

107. *Id.* at 442-47. These non-infringing uses of Betamaxes constituted approximately ten percent of its uses. *Id.* at 443. The Court did not make clear whether these authorized uses alone met the substantial non-infringing use test.

108. *Id.* at 447-56.
a later time a program he/she was welcome to view for free; because although home taping copied whole programs, users commonly taped over programs after viewing them; and because Universal had stipulated that it had not yet suffered any harm, and evidence of future harm was, in the Court’s view, “speculative.”

Sony announced that private noncommercial copying of copyrighted materials should be presumed fair (thereby shifting the burden of proof of unfairness to the copyright owner), and second, that copyright owners had to prove that “the particular use is harmful, or that if it should become widespread, it would adversely affect the potential market for the copyrighted work,” or that “some meaningful likelihood of future harm exists.” Prohibiting noncommercial uses that had “no demonstrable effect upon the potential market for, or the value of, the copyrighted work... would merely inhibit access to ideas without any countervailing benefit.”

The Sony opinion concluded with this trenchant observation:

One may search the Copyright Act in vain for any sign that the elected representatives of the millions of people who watch television every day have made it unlawful to copy a program for later viewing at home, or have enacted a flat prohibition against the sale of machines that make such copying possible.

Congress may well “take a fresh look at this new technology, just as it so often has examined other innovations in the past.” But having found no basis in the copyright statute “as it now reads,” the Ninth Circuit’s ruling “must be reversed.”

Justice Blackmun’s dissent is strikingly different in structure and tone from Justice Stevens’s opinion for the majority. Blackmun’s starting point was the congressional grant to copyright owners of an exclusive right to control reproductions of their works in copies. Even a single copy could infringe this exclusive right. Congress had considered and rejected the

109. Id. at 451-53.
110. Id. at 453 n.39.
111. Id. at 454.
112. Id. at 449. The Court also announced that “every commercial use of copyrighted material is presumptively an unfair exploitation of the monopoly privilege” and that “[i]f the intended use is for commercial gain, [the] likelihood [of harm] may be presumed.” Id. at 451. The commercial presumptions were endorsed in Harper & Row, Publishers, Inc. v. Nation Enterprises, 471 U.S. 539 (1985), but eventually repudiated by the Court in Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569 (1994).
114. Id. at 450-51.
115. Id. at 456.
116. Id.
117. Id.
118. Id. at 462 (Blackmun, J., dissenting).
119. Id. at 463.
idea of creating an exception for private noncommercial copies, so unless a private copy qualified as a fair use, it was an infringement.

Justice Blackmun explained at considerable length why he believed time shifting did not qualify as a fair use. Fair use was, he argued, intended to permit productive uses of existing works, such as scholarly quotations from preexisting works, but not for ordinary consumptive uses, such as watching a program at a later time. Scholars and other productive users of copyrighted works contributed new knowledge that justified the "subsidy" that fair use imposed on authors. "There is no indication that the fair use doctrine has any application for purely personal consumption on the scale involved in this case...."

Most time shifting was, moreover of entertainment programs, not news or informational works, which cut against fair use. The amount and substantiality of the copying was, in Justice Blackmun's view, "even more devastating to the Court's interpretation" because time shifting typically involved copying whole programs. In his view, copying of entire works "might alone be sufficient to preclude a finding of fair use."

Blackmun's dissent was especially critical of Stevens's opinion for failing to consider "the effect of the [challenged] use upon the potential market for or value of the copyrighted work," as the fair use provision directed. In Justice Blackmun's view, a prospective fair user "cannot prevail merely by demonstrating that the copyright holder suffered no net harm from [his] action[s]"; indeed, "even a showing that the infringement has resulted in a net benefit to the copyright holder will not suffice." To prevail, the fair use claimant "must demonstrate that he had not impaired the copyright holder's ability to demand compensation from (or to deny access to) any group who would otherwise be willing to pay to see or hear the copyrighted work." Universal had identified "a number of ways in which VTR recording could damage their copyrights," and had shown

120. Id. at 465-66.
121. Id. at 464-65. "When Congress intended special and protective treatment for private use," Justice Blackmun said, "it said so explicitly," id. at 468, as it had done in limiting the exclusive performance right to control over public performances and in permitting certain copies to be made by libraries. 17 U.S.C. §§ 106(4), 108 (2000).
122. Justice Blackmun's dissent also contains a lengthy discussion of the implied private copying exemption argument that had persuaded the district court. Sony, 464 U.S. at 470-75 (Blackmun, J., dissenting). Justice Stevens's opinion for the Court did not address this issue.
123. See 17 U.S.C. § 107 (discussed in Sony, 464 U.S. at 477-81 (Blackmun, J., dissenting)).
125. Id. at 495. Justice Blackmun was "aware of no case in which the reproduction of a copyrighted work for the sole benefit of the user has been held to be fair use." Id. at 479.
126. Id. at 496-97.
127. Id. at 497.
128. Id.
129. Id. at 482 (Blackmun, J., dissenting) (quoting 17 U.S.C. § 107(4) (2000)).
130. Id. at 485.
131. Id.
132. Id. at 483.
harm to a new potential market consisting of those persons who "are willing to pay for the privilege of watching copyrighted [programs] at their convenience." 133

Turning to contributory infringement, the Blackmun dissent observed that "[f]rom [Universal's] perspective, the consequences of home VTR recording are the same as if a business had taped [its] works off the air, duplicated the tapes, and sold or rented them to members of the public for home viewing." 134 Neither "formal control over the infring[er]" nor "actual knowledge of particular instances of infringement" 135 was necessary to establish contributory liability in Justice Blackmun's view. Constructive knowledge of infringement sufficed, 136 and "Sony had reason to know the Betamax would be used by some owners to tape copyrighted works off the air." 137 Indeed, Sony's ads encouraged them to do so. 138

Justice Blackmun regarded the staple article rule of patent law to be "based in part on considerations irrelevant to the field of copyright," and so it should not "be imported wholesale into copyright law." 139 Yet, he recognized that "many of the concerns underlying the 'staple article of commerce' doctrine are present in copyright as well." 140 For him, the question was whether "virtually all of the product's use ... is to infringe" or whether "a significant portion of the product's use is non-infringing." 141 Justice Blackmun would have sent Sony back to the lower courts for more precise findings about the relative proportions of infringing and non-infringing uses of Betamax machines. 142

The concluding parts of Justice Blackmun's dissent contain some stinging indictments of the majority opinion. It criticized the Court for "dramatically [altering] the doctrines of fair use and contributory infringement as they have been developed by Congress." 143 The decision "erodes much of the coherence that these doctrines have struggled to achieve." 144 Justice Blackmun also criticized the majority opinion for "confus[ing] the question of liability with the difficulty of fashioning an appropriate remedy." 145 He believed it was possible to accommodate the concerns of broadcasters who supported time-shift copying by ordering

133. Id. at 485. That such persons were willing to pay was "evidenced by the fact that they are willing to pay for VTR's ar.d tapes." Id.
134. Id. at 486.
136. Id. at 488.
137. Id. at 489.
138. Id. at 489-90.
139. Id. at 491.
140. Id.
141. Id.
142. Id. at 493.
143. Id.
144. Id.
145. Id. at 494.
Sony to pay a royalty to copyright owners or "Sony may be able... to build a VTR that enables broadcasters to scramble the signal of individual programs and 'jam' the unauthorized recording of them." The majority's willingness to allow manufacturers to escape liability if their technologies were capable of substantial non-infringing uses "essentially eviscerates the concept of contributory infringement," for "only the most unimaginative manufacturer would be unable to demonstrate" such capability.

Even without these criticisms, the contrast between Justice Stevens's and Justice Blackmun's opinions in *Sony* is unmistakable. For Justice Stevens, the starting point was the consideration of copyright as a limited monopoly right. In the absence of a clear congressional direction about the legality of time shifting or other private copying or about liability of technology developers for infringing acts of users, the Court should construe the monopoly rights narrowly. A broad rule would interfere with legitimate interests of the public in access to the technology and to programs shown on broadcast television which they could not watch at the scheduled hour, as well as with the interests of other copyright owners and with commerce.

For Justice Blackmun, the starting point was the exclusive property right the law granted authors to control copying of copyrighted works. Any copy was infringing unless it qualified as a fair use either because of its productive character or because it caused truly de minimis harm. Copyright owners were entitled to control not only existing but also potential markets. If copyright owners were able to find ways to charge for new uses of their works, such as time shifting, they were entitled to control these markets.

Had Justice Blackmun's framework of analysis been adopted by the Court in *Sony*, many legal developments discussed below as the legacy of *Sony* would have been unlikely, impossible, or at least far more difficult to achieve. Stevens and Blackmun could hardly be more different in their interpretations of fair use, and in the manner in which they approach judicial decision making on copyright issues. Justice Stevens's limited monopoly framework asks courts to consider what the copyright law says (or does not say) about the legal issue presented in a particular case, what Congress anticipated when enacting that language, and how public interest in access to copyrighted works and to technology will be affected by the court's decision. "When technological change has rendered its literal terms ambiguous, the Copyright Act must be construed in light of [its] basic purpose," which, in Justice Stevens's view, lies in promoting public

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146. *Id.* This potential remedy is worth noting, in part, because Congress is currently considering legislation to impose such a requirement on makers of certain information technologies. See H.R. 4569, 109th Cong. (1st Sess. 2005).
147. *Sony*, 464 U.S. at 498 (Blackmun, J., dissenting).
148. *Id.* at 481-82 (noting that "[p]hotocopying an old newspaper clipping to send to a friend" would cause de minimis harm).
149. *Id.* at 432 (quoting Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975) (holding that playing the radio at a fast food restaurant was not a public performance for which copyright permissions must be obtained)).
access to knowledge. Justice Blackmun’s proprietarian framework, by contrast, focuses on whether there has been unauthorized (and hence presumptively unfair) copying and whether there is a potential market to charge users for such copying.

III. THE LEGACY OF SONY

The most obvious and most commercially significant legacy of SONY is the safe harbor it established for technologies having or capable of having substantial non-infringing uses. SONY has been characterized as the “Magna Carta” of the information technology industry. Without the safe harbor it provides, tape recorders, photocopiers, CD burners, CD ripping software, iPods, and MP3 players, and a host of other technologies that facilitate private or personal use copying might have never become widely available. While Jessica Litman may be right that SONY has not insulated all makers of reprography technologies from lawsuits, this is not because of ambiguities or deficiencies in the safe harbor, but rather because the entertainment industry has been unwilling to accept that SONY really established the safe harbor it announced. In Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd., the entertainment industry believed the right factual circumstances were in place—its expert opined that nearly ninety percent of the uses of peer-to-peer (“p2p”) technologies were infringing or likely infringing—for overturning or substantially narrowing the SONY safe harbor. Although the Court did rule in favor of Metro-Goldwyn-Mayer (“MGM”) and directed the lower courts to consider whether Grokster had induced user infringements, it saw no need to

150. Id. at 432.
151. Litman, supra note 76, at 951.
152. See infra Part III.C for a discussion of the regulation of digital audio taping technologies and a legal challenge to MP3 players.
153. Litman, supra note 76, at 951. Digital audio tape recorders, MP3 players, and digital video recorders were challenged for contributing to copyright infringement. Id.
155. 259 F. Supp. 2d 1029 (C.D. Cal. 2003), aff’d, 380 F.3d 1154 (9th Cir. 2004), vacated and remanded, 125 S. Ct. 2764 (2005).
156. Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 125 S. Ct 2764, 2772 (2005). Metro-Goldwyn-Mayer (“MGM”) emphasized this evidence in framing the question on which it asked the Court to take its appeal: Whether the Ninth Circuit erred in concluding . . . that the Internet-based “file sharing” services Grokster and StreamCast should be immunized from copyright liability for the millions of daily acts of copyright infringement that occur on their services and that constitute at least 90% of the total use of the services.
Petition for a Writ of Certiorari, supra note 154, at i. Contrast this with the question the Court ultimately decided to address: “[U]nder what circumstances [is] the distributor of a product capable of both lawful and unlawful use is liable for acts of copyright infringement by third parties using the product.” Grokster, 125 S. Ct. at 2770.
157. Grokster, 125 S. Ct. at 2782-83.
revisit the Sony safe harbor or quantify the level of infringement that would disqualify a firm from raising it, as MGM wanted.\footnote{158} This part considers the legacy of Justice Stevens’s opinion in Sony in and beyond the safe harbor it established for technologies suitable for substantial non-infringing uses. Sony has been highly influential in new technology cases, such as those permitting reverse engineering of computer programs and development of add-on software, and those limiting liability of Internet service providers and search engines.\footnote{159} Digital access initiatives, such as the Internet Archive and Google’s Book Search Project,\footnote{160} rely on Sony as a key supporting precedent. Had Justice Blackmun’s fair use analysis prevailed in Sony, few, if any, of these developments would have survived copyright challenges.

A. Safe Harbor for Technologies with Substantial Non-Infringing Uses

That Sony established a safe harbor for technologies having a substantial non-infringing use was recognized in Vault Corp. v. Quaid Software, Ltd.\footnote{161} Prolok, Vault’s copy-protection software, enabled application software developers to prevent their customers from making unauthorized copies of programs loaded onto Prolok-protected disks.\footnote{162} Quaid reverse-engineered Prolok and developed and commercially distributed a program called CopyWrite, a feature of which, Ramkey, could unlock Prolok and enable users to make unauthorized copies of application software.\footnote{163} Vault claimed, among other things, that Quaid was liable for contributory copyright infringement because of the Ramkey feature.\footnote{164} Vault asserted that Quaid knew that Ramkey would be widely used to enable infringement, and the court took notice of the high rate of software “piracy” that

\footnote{158. Id. at 2778. Justice Ruth Bader Ginsburg’s concurrence suggests she holds a narrower view of the Sony safe harbor than the majority and Justice Breyer. Compare id. at 2783-87 (Ginsburg, J., concurring) with id. at 2787-96 (Breyer, J., concurring).}

\footnote{159. For discussion of these developments, see infra notes 287-333 and accompanying text.}

\footnote{160. The Internet Archive is a nonprofit organization “that was founded to build an ‘Internet library,’ with the purpose of offering permanent access for researchers, historians, and scholars to historical collections that exist in digital format.” Internet Archive, About IA, http://www.archive.org/about/about.php (last visited Feb. 12, 2006). Google Book Search is a similar initiative which aims at eventually having the full text of all books online and searchable. Google Book Search, Our Vision, http://books.google.com/googlebooks/vision.html (last visited Feb. 12, 2006).}

\footnote{161. 847 F.2d 255 (5th Cir. 1988).}

\footnote{162. Id. at 256-57.}

\footnote{163. Id. at 257-58.}

\footnote{164. The trial court had ruled that Vault lacked standing to challenge Quaid for contributory infringement because any infringements that might have occurred would be of application program copyrights of which it was not an owner. The appellate court ruled that Vault had standing to raise a contributory infringement claim on account of the losses it allegedly sustained in its customer base. Id. at 262-63. Contributory infringement was only one of several claims against Quaid; none succeeded.}
explained why firms might want to use technologies such as Prolok to prevent it.165

Quaid argued that Sony protected it from the contributory infringement claim because its software was capable of a substantial non-infringing use, namely, enabling users to make backup copies of software, which copyright law expressly permitted.166 The appellate court rejected Vault's narrow interpretation of the backup copying privilege, and ruled that under Sony, Quaid could not be held liable for contributory infringement because of its utility for backup copying.167

Not every defendant who has raised a Sony safe harbor defense has succeeded.168 When Sega sued the operator of a commercial bulletin board service that had been charging fees to users for the privilege of uploading and downloading Sega games and providing users with software enabling them to strip the games off Sega disks, MAPHIA (yes, that really was the operator's moniker) claimed that Sony shielded his activities.169 MAPHIA claimed to be enabling private noncommercial copying of Sega games under Sony; the software he provided for ripping games from their disks was capable of substantial non-infringing uses, and, he asserted, lawful under Sony. Yet because MAPHIA was actively encouraging his customers to make infringing copies of Sega games and charging them money for the privilege, the court found MAPHIA's Sony defense unpersuasive and held him liable for contributory infringement.170

The Sony safe harbor was not significantly challenged as a copyright rule until the emergence of p2p file sharing technologies such as Napster. Napster developed software that enabled its many millions of registered users to share MP3 files of recorded music via the Internet.171 Napster maintained a centralized search and directory system through which users of its client-side software could search for files of music they desired by album, song title, or artist name; upon finding the desired match, users could download the music directly from computers of their peers whose directories included the desired files. Because copies did not pass through

165. Id. at 261 n.13.
166. Id. at 264.
167. Id. at 266. Vault argued that Congress had only intended to allow backup copying to protect against mechanical and electromechanical failures, making use of Ramkey unnecessary, but the court decided that Congress intended to enable fully functional backup copies. Use of a program such as Ramkey was necessary to enable this kind of backup. Id.
170. See id. at 933-36. Users were obviously not making "private noncommercial" copies akin to time-shift copies in the home; they were downloading whole programs and presumably not erasing them after a first testing; hence, there was meaningful likelihood of harm to the market for the commercial programs being traded on the site. MAPHIA knew of these infringing uses, contributed to them, and indeed induced them. See id.
171. The Napster system was described in A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1011-13 (9th Cir. 2001).
and were not stored on Napster's central servers, Napster was not a direct infringer,\textsuperscript{172} but A&M Records, among others, sued Napster for contributory and vicarious infringement.

Napster’s principal defense was its eligibility for the \textit{Sony} safe harbor because of the authorized and fair uses it enabled and the capabilities of its system for a wide range of non-infringing uses.\textsuperscript{173} The trial court rejected Napster’s \textit{Sony} safe harbor defense and granted A&M Records’s motion for preliminary injunction, finding it was likely to succeed in establishing secondary liability of Napster for user infringements.\textsuperscript{174}

The Ninth Circuit affirmed the trial court’s rulings on secondary liability.\textsuperscript{175} It agreed with the trial court that downloading MP3 files with the aid of Napster was not fair use, even for space shifting and sampling purposes.\textsuperscript{176} Napster knew it was contributing to user infringements and provided the sites and facilities for user infringements, and hence was a contributory infringer.\textsuperscript{177} The \textit{Sony} safe harbor did not apply, the Ninth Circuit opined, if one had actual knowledge of infringements or if one was charged with vicarious infringement.\textsuperscript{178} Napster was a vicarious infringer, the court held, because it had the right and ability to control its registered users and their infringements, and having failed to exercise this control to prevent infringements, it should be held responsible for them.\textsuperscript{179} Yet the Ninth Circuit chided the trial court for not considering the non-infringing capabilities of Napster\textsuperscript{180} and reversed in part because of overbreadth of the injunction.\textsuperscript{181}

\textsuperscript{172} A direct infringement claim for unlawful distribution of copyrighted works was made in the course of follow-on litigation against venture capital firm Hummer Winblad and Bertelsmann as investors in Napster. See \textit{In re Napster, Inc.} Copyright Litig., 377 F. Supp. 2d 796 (N.D. Cal. 2005) (holding that Napster’s index may have made files available for sharing, but indexing did not constitute distribution of copies).

\textsuperscript{173} \textit{Napster}, 239 F.3d 1004. Napster also argued that uploading and downloading of recorded music was privileged by 17 U.S.C. § 1008 (2000), and if users were not infringing, it could not be secondarily liable. Napster also argued that it qualified for Internet service provider (“ISP”) safe harbors from secondary liability under 17 U.S.C. § 512(a), (d) (2000). The Ninth Circuit agreed with the trial court that Napster users were not privileged to engage in downloading under § 1008. See \textit{Napster}, 239 F.3d at 1024-25. The trial court ruled against the § 512 defenses, and the Ninth Circuit thought there was ample evidence to support the lower court ruling on this issue. \textit{Id.} at 1025.


\textsuperscript{175} \textit{Napster}, 239 F.3d 1004.

\textsuperscript{176} \textit{Id.} at 1014-19.

\textsuperscript{177} \textit{Id.} at 1019-22.

\textsuperscript{178} \textit{Id.} at 1021-22. Professor Paul Goldstein criticized the Ninth Circuit’s \textit{Napster} decision for blurring the distinction between the requirement that a contributor have knowledge of infringement and eligibility for the \textit{Sony} safe harbor on account of substantial non-infringing uses. See 2 Paul Goldstein, Goldstein on Copyright § 8.1.2 (3d ed. 2005).

\textsuperscript{179} \textit{Napster}, 239 F.3d at 1022-24.

\textsuperscript{180} \textit{Id.} at 1021 (“The district court improperly confined the use analysis to current uses, ignoring the system’s capabilities.”).

\textsuperscript{181} \textit{Id.} at 1027-28 (“The preliminary injunction . . . is overbroad because it places on Napster the entire burden of ensuring that no ‘copying, downloading, uploading, transmitting, or distributing’ of plaintiffs’ works occur on the system . . . . [W]e place the burden on plaintiffs to provide notice to Napster of copyrighted works and files containing
Emboldened by the success against Napster, major recording firms sued Aimster, another p2p file sharing service, making several arguments aimed at confining Sony to its facts. They argued, for example, that secondary liability could be imposed (1) if the primary use of the defendant's system was infringing; (2) if the defendant was providing a service, instead of a device (such as a Betamax machine); (3) if there was an ongoing relationship between the defendant and its infringing users; (4) the defendant enabled more than home copying (e.g., distribution of copies); and (5) if the system was specifically designed to enable infringement. Such arguments were, the court concluded, addressed to the wrong forum (i.e., the arguments should be made to Congress, not the courts).

The United States Court of Appeals for the Seventh Circuit did, however, affirm a preliminary injunction against Aimster as an indirect infringer. Aimster had not shown, the court said, that it qualified for the Sony safe harbor: "Aimster has failed to produce any evidence that its service has ever been used for a noninfringing use, let alone evidence concerning the frequency of such uses." Although the Aimster decision articulates several possible non-infringing uses of the system, the court opined that merely being capable of a non-infringing use does not qualify a technology developer for the Sony safe harbor.

Strongly supporting the Seventh Circuit's ruling were two key facts about Aimster: that its site offered a tutorial showing users how to find and share copyrighted music they desired (that is, how to engage in infringing uses of the system) and that it offered a "premium" service for a monthly fee that gave users access to a service making it easy to obtain the "top 40" songs available via Aimster.

Judge Richard Posner's opinion in Aimster did not rest its conclusion about secondary liability on these features. It proposed instead that courts should use a cost-benefit test for determining secondary liability of technology developers for user copyright infringements. Under the test, courts would consider how costly it would be to develop infringement-inhibiting technical designs and how much infringement would be averted thereby. Unless it would be "disproportionately costly" to prevent infringements, technologists who failed to incorporate infringement-inhibiting features should be held responsible for infringements that ensue.

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182. See In re Aimster Copyright Litig., 334 F.3d 643, 649 (7th Cir. 2003).
183. Id.
184. Id. at 655-56.
185. Id. at 653.
186. Id. at 652-53.
187. Id. at 651-52.
188. Id. at 653; see also Douglas Lichtman & William Landes, Indirect Liability for Copyright Infringement: An Economic Perspective, 16 Harv. J.L. & Tech. 395 (2003).
When faced with the entertainment industry’s appeal in yet another p2p file sharing technology case in Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.,\(^{189}\) the Ninth Circuit accepted the Sony safe harbor as the proper framework for analysis. The lower court had correctly ruled, it said, that the current version of Grokster’s software qualified for the Sony safe harbor from contributory liability because Grokster offered proof that its software was being used for many non-infringing uses and was capable of many more.\(^{190}\) The court concluded that vicarious liability could not be imposed on Grokster because the decentralized architecture of its system made it impossible for it to exercise control over its users.\(^{191}\) MGM did not persuade the court that Grokster should be vicariously liable for infringement because it failed to build infringement-inhibiting features, such as filters, into its system.\(^{192}\) Invoking Sony, the court told MGM to take its pleas for alternative secondary liability rules to Congress.\(^{193}\)

After the Supreme Court granted MGM’s petition for certiorari,\(^{194}\) MGM and legions of amici wrote briefs criticizing the Ninth Circuit’s ruling and the Sony safe harbor and proposing many alternative tests and frameworks for analysis.\(^{195}\) Grokster and its amici circled wagons around the Sony safe harbor as a sound legal principle that had stood the test of time and appropriately balanced the interests of copyright owners, technology developers, and the public, and if change was needed to secondary liability rules, Congress, not the courts, should make it.\(^{196}\)

Although the Supreme Court reversed the Ninth Circuit’s holding, it did not repudiate the Sony safe harbor for technologies having substantial non-infringing uses, as MGM had hoped.\(^{197}\) MGM was unable to persuade the Court to adopt any of the far broader secondary liability rules for which it argued.\(^{198}\) Justice Souter’s opinion for the Court pointed out that the Sony safe harbor “leaves breathing room for innovation and a vigorous commerce.”\(^{199}\) The Court explained at some length the rationale for recognizing a safe harbor from secondary liability for those who make or

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189. 380 F.3d 1154 (9th Cir. 2004), vacated and remanded, 125 S. Ct. 2764 (2005).
190. Id. at 1161-62.
191. Id. at 1165. The Ninth Circuit’s Napster decision emphasized that Napster’s ability to control its users was affected by its architecture. A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1024 (9th Cir. 2001).
192. Grokster, 380 F.3d at 1166.
193. Id. at 1167.
195. The briefs filed by MGM and supporting amici can be found at http://www.eff.org/IP/P2P/ MGM_v_Grokster/ (last visited Jan. 31, 2006). Several briefs were also filed that supported neither party.
196. The briefs filed by Grokster and its supporting amici can also be found at http://www.eff.org/IP/P2P/ MGM_v_Grokster/ (last visited Jan. 31, 2006).
197. Grokster, 125 S. Ct. at 2778-80.
199. Grokster, 125 S. Ct. at 2778.
sell technologies with substantial non-infringing uses.\textsuperscript{200} When a product is "good for nothing else but infringement, there is no legitimate public interest in its unlicensed availability, and there is no injustice in presuming or imputing an intent to infringe."\textsuperscript{201} In \textit{Sony}, "the only conceivable basis for imposing liability was on a theory of contributory infringement arising from its sale of VCRs to consumers with knowledge that some would use them to infringe,"\textsuperscript{202} and a now-unanimous Court agreed that this theory simply went too far. The Court warned against interpreting its decision in \textit{Grokster} in a manner that would tread too closely on the \textit{Sony} safe harbor.\textsuperscript{203}

\textbf{B. Inducing Copyright Infringement}

The Supreme Court could easily have decided in \textit{Grokster} that inducing copyright infringement should be a basis for secondary liability without invoking \textit{Sony}.\textsuperscript{204} Because the Court's rationale for this ruling was so interconnected with its explanation of the soundness of its ruling in \textit{Sony},\textsuperscript{205} it is fair to treat \textit{Grokster}'s inducement standard as another facet of \textit{Sony}'s legacy.\textsuperscript{206}

\begin{flushright}
\textsuperscript{200} Id. at 2777-80.

\textsuperscript{201} Id. at 2777 (citation and internal quotation omitted).

\textsuperscript{202} Id.

\textsuperscript{203} Id. at 2781 n.12 (noting that it is inappropriate to infer intent to induce infringement from failure to adopt affirmative steps to avoid infringement because it would "tread too close to the \textit{Sony} safe harbor").

\textsuperscript{204} The Supreme Court in \textit{Grokster} characterized inducement liability as a subcategory of contributory infringement. See \textit{id.} at 2776. This was plausible because the court in \textit{Gershwin Publishing Corp. v. Columbia Artists Management, Inc.}, 443 F.2d 1159, 1162 (2d Cir. 1971), had spoken of inducing or materially contributing to infringement as a basis for secondary liability. In patent law, inducement and contributory infringement are two separate theories of indirect liability. See 35 U.S.C. § 271(b)-(c) (2000). Because inducement and contributory infringement have distinct elements, inducement should be conceptualized in copyright as a separate basis for imposing indirect liability.

\textsuperscript{205} See \textit{Grokster}, 125 S. Ct. at 2777-81.

\textsuperscript{206} The Court said, for example, "For the same reasons that \textit{Sony} took the staple-article doctrine of patent law as a model for its copyright safe-harbor rule, the inducement rule, too, is a sensible one for copyright." \textit{Id.} at 2780. That the Court in \textit{Grokster} would so explicitly endorse borrowing both rules from patent law was by no means certain, especially given that some amici severely criticized the Court for having borrowed from patent law in \textit{Sony}. See, e.g., Brief of Professors Peter S. Menell, David Nimmer, Robert P. Merges, and Justin Hughes, as \textit{Amici Curiae} in Support of Petitioners, \textit{Grokster}, 543 U.S. 1032 (No. 04-480), reprinted in 20 Berkeley Tech. L.J. 509, 520-26 (2005), available at http://www.eff.org/1P/P2P/MGM_v_Grokster/050125_Menell.pdf. Several technology industry associations, however, strongly endorsed the \textit{Sony} safe harbor and urged the Court to reverse and remand for consideration of a patent-like inducement theory. See, e.g., Brief of the Business Software Alliance as \textit{Amicus Curiae} Supporting Petitioners, \textit{Grokster}, 543 U.S. 1032 (No. 04-480), available at http://www.eff.org/1P/P2P/MGM_v_Grokster/050124_BSAGroksterBrief.pdf; Brief of IEEE-USA as \textit{Amicus Curiae} in Support of Neither Party, \textit{Grokster}, 543 U.S. 1032 (No. 04-480), available at http://www.eff.org/1P/P2P/MGM_v_Grokster/050124_IEEE.pdf; \textit{Amicus Curiae} Brief of the American Intellectual Property Law Ass'n in Support of Vacatur and Remand, \textit{Grokster}, 543 U.S. 1032 (No. 04-480), available at http://www.eff.org/1P/P2P/MGM_v_Grokster/050124_AIPLA_Grokster_Amicus_Brief.pdf;
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The Court acknowledged that *Sony* had barred imposing secondary liability “based on presuming or imputing intent to cause infringement solely from the design or distribution of a product capable of substantial lawful use.”\(^{207}\) But *Sony* should not be construed to mean that “the producer [of a technology suitable for non-infringing uses] can never be held contributorily liable for third parties’ infringing use of it.”\(^{208}\) The Court observed that “where evidence goes beyond a product’s characteristics or the knowledge that it may be put to infringing uses, and shows statements or actions directed to promoting infringement, *Sony*’s staple-article rule will not preclude liability.”\(^{209}\) Because there was such evidence in *Grokster*, the Court remanded the case for assessment of Grokster’s liability on an active inducement theory.\(^{210}\)

The Court’s decision in *Grokster* to import patent law’s inducement rule into copyright presages that copyright owners will have to meet a stiff burden of proof to establish inducement liability.\(^{211}\) Patent law requires proof of overt acts of inducement,\(^{212}\) such as advertising that actively promotes infringing uses or instruction manuals that show users how to infringe, as well as proof of a specific intent to induce infringement.\(^{213}\) There must also be infringing acts that were induced by this defendant.\(^{214}\) The case law on patent inducement liability makes clear that merely making or selling an infringement-enabling technology is not inducement, even if

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\(^{207}\) Id. at 2779.

\(^{208}\) Id.

\(^{209}\) Id. at 2779 n.10.

\(^{210}\) The Court said that “[t]here is substantial evidence in MGM’s favor on all elements of inducement.” Id. at 2782. It also suggested that the lower court on remand should reconsider MGM’s motion for summary judgment. Id. Grokster settled the lawsuit with MGM within months of the Supreme Court’s ruling. See, e.g., Matthai Chakko Kuruvila, *Hollywood Breathes Sigh of Relief Over Grokster’s Demise, Settlement*, The Mercury News (San Jose, CA), Nov. 8, 2005, at IC, available at http://www.mercurynews.com/mld/mercurynews/business/technology/13111968.htm.

\(^{211}\) The Court not only invoked, at considerable length, the staple article of commerce rule of patent law was not a defense to inducement liability either. Id. at 2779 n.10.

\(^{212}\) See, e.g., 5 Chisum on Patents, *supra* note 102, § 17.04[4].

\(^{213}\) Id. § 17.04[2].

\(^{214}\) Id. § 17.04[1].
the technology is widely used for infringing purposes.\textsuperscript{215} The Court in \textit{Grokster} similarly opined that "mere knowledge of infringing potential or of actual infringing uses" would not give rise to inducement liability, nor "would ordinary acts incident to product distribution, such as offering customers technical support or product updates."\textsuperscript{216} Inducement liability requires proof of "purposeful, culpable expression and conduct."\textsuperscript{217} High standards of proof for inducement liability will ensure that secondary liability rules would not "compromise legitimate commerce or discourage innovation having a lawful promise."\textsuperscript{218}

\section*{C. Statutory Overrides of the Sony Safe Harbor}

Twice during the 1990s, Congress decided that copyright owners would be too vulnerable to substantial volumes of unlawful copying unless there was some statutory adjustment to the \textit{Sony} safe harbor rule for specific technologies. By enacting the Audio Home Recording Act ("AHRA") in 1992, Congress decided to regulate digital audiotape recorder ("DAR") technologies,\textsuperscript{219} and in the Digital Millennium Copyright Act ("DMCA") of 1998, it chose to regulate technologies primarily designed to circumvent technical protection measures ("TPMs") used by copyright owners to protect their works.\textsuperscript{220}

These laws are a legacy of \textit{Sony} for at least three reasons: because Congress has accepted the \textit{Sony} safe harbor as a default rule for limiting technology developer liability; because statutory overrides to the safe harbor require a showing of serious threats to copyright owner interests; and because even these statutory overrides incorporate some limiting principles from \textit{Sony}.

The AHRA, for example, was compromise legislation that responded to the emergence of DAR technologies designed to allow consumers not only to play recorded music, but also to make copies of DAR recordings. "From

\begin{thebibliography}{9}
\bibitem{215}See, e.g., Warner-Lambert Co. v. Apotex Corp., 316 F.3d 1348, 1365 (Fed. Cir. 2003) (holding that selling a staple article was not contributory infringement "even when the defendant has actual knowledge that some users of its product may be infringing the patent"). In patent law, a firm that has been held liable for inducement is entitled to continue to sell staple articles after ceasing the inducement of patent infringement. See 5 Chisum on Patents, \textit{supra} note 102, \S 17.04. It remains to be seen whether technology developers that cease inducing copyright infringement will be able to continue to supply technologies suitable for non-infringing uses. The Court did not specifically address this question, although the tone of the \textit{Grokster} decision suggests that Grokster could not have expected to continue operations merely because it had stopped the "bad" acts that the Court regarded as the basis for the infringement claim. For a discussion of the implications of making technology developer liability for copyright infringement depend on "bad" intent, see, e.g., Tim Wu, \textit{The Copyright Paradox}, 2005 Sup. Ct. Rev. (forthcoming April 2006).
\bibitem{216}\textit{Grokster}, 125 S. Ct. at 2780.
\bibitem{217}\textit{Id.}
\bibitem{218}\textit{Id.}
\end{thebibliography}
the consumer's viewpoint, the advantage was that, unlike analog tapes, whose sound quality deteriorates with each successive copy, digital tapes promised not only flawless reproductions from original tapes but equally flawless copies of copies.\textsuperscript{221} Because DAR devices had and were capable of substantial non-infringing uses,\textsuperscript{222} the sound recording industry was unlikely to succeed in any contributory infringement lawsuit against makers of these machines. The recording industry first sought a moratorium on the sale and distribution of DARs in the U.S. and then a legislative mandate to require DARs to incorporate a TPM to prevent copying of copyrighted sound recordings.\textsuperscript{223}

The AHRA required consumer-grade DAR machines to have a serial copy management system ("SCMS") chip that prevents users from being able to make successive generations of perfect digital copies of copyrighted sound recordings.\textsuperscript{224} However, recognizing consumer interests in and expectations of personal use copying, SCMS chips were designed to allow users to make first-generation personal use copies of sound recordings.\textsuperscript{225} The AHRA provided immunity from infringement liability for noncommercial copies of DAR and analog sound recordings,\textsuperscript{226} arguably codifying Sony's safe harbor for private non-commercial copying of this class of copyrighted works.\textsuperscript{227} To respond to the interests of composers of music and their publishers, the AHRA also mandated a small percent tax on DAR devices and tapes so that authors of music would be able to benefit from this new market.\textsuperscript{228}

The AHRA regulations were intentionally drawn narrowly to exclude from coverage computers and other information technologies.\textsuperscript{229} When the recording industry sued the maker of an early MP3 player lacking an SCMS chip for violating the AHRA, the Ninth Circuit ruled that MP3 players were not subject to that law's constraints and could be freely sold in the

\begin{itemize}
  \item \textsuperscript{221} Paul Goldstein, Copyright's Highway: From Gutenberg to the Celestial Jukebox 129 (Stanford University Press, rev. ed. 2003) (1994).
  \item \textsuperscript{222} The recording industry believed that digital audiotape recorders ("DARs") were distinguishable from Betamax machines because of the greater likelihood that copies made of DAR recordings would not be erased after one listening as time-shift copies of television programs generally were. DARs were also useful for copying of content that had not been broadcast off the air without charge to consumers. The risk was high, they believed, that owners of DAR devices would use them to make multiple copies of sound recordings and transfer those copies to persons who had not purchased them.
  \item \textsuperscript{223} Goldstein, supra note 221, at 128-31.
  \item \textsuperscript{224} 17 U.S.C. § 1002(a)(2). Users can make unlimited first generation copies of DAR recordings, but serial copy management system ("SCMS") affects the ability to make perfect digital copies from first generation DAR copies.
  \item \textsuperscript{225} Goldstein, supra note 221, at 131.
  \item \textsuperscript{226} 17 U.S.C. § 1008.
  \item \textsuperscript{227} See supra Part II.
  \item \textsuperscript{228} 17 U.S.C. §§ 1003(c)(3), 1004(a)(1); see Goldstein, supra note 221, at 131-32 (discussing the concerns of composers that led to the compulsory license on DAR machines).
  \item \textsuperscript{229} See Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1075-79 (9th Cir. 1999).
\end{itemize}
For this and other reasons, the AHRA has not proven to be a significant limit on the Sony safe harbor.

The DMCA anti-circumvention rules, in contrast, have had an impact on the availability of certain technologies that would otherwise have qualified for the Sony safe harbor. RealNetworks, for example, was able to get a preliminary injunction to stop technology developer Streambox from offering software called "Streambox VCR" to allow users to make personal use copies of streamed music because of a TPM that owners of the music had used to prevent downloading. Streambox argued that it was entitled to offer this product because of its substantial non-infringing uses under Sony. The court concluded that the DMCA anti-circumvention rules had overridden Sony as to technically protected copyrighted content.

The most strident and Blackmun-like of the DMCA cases thus far has been Universal City Studios, Inc. v. Reimerdes. Universal and co-plaintiffs charged Eric Corley (a.k.a. Emmanuel Goldstein), a journalist who published an online news magazine focused on developments of interest to the computer hacking community, with violating the DMCA because Corley posted a copy of a program known as DeCSS on his website as part of his coverage of the story of the development of this program designed to bypass the Content Scramble System ("CSS") used to protect DVD movies. Corley also linked to sites where DeCSS could be found. Corley's primary defense was a facial challenge to the DMCA anti-circumvention rules as an unconstitutional abridgement of free speech.

The trial court interpreted the DMCA rules very strictly and held that Corley had violated them both in posting and linking to DeCSS.

Although many commentators have suggested that some fair use hacking of TPMs should be permissible, the court rejected fair use and other

230. Id. at 1081.
231. Consumers did not find DARs with SCMS chips to be attractive, and the market for these devices and tapes was consequently not very robust. The technology-specific character of the Audio Home Recording Act and its abstruse definitions have also been criticized by scholars and others. See, e.g., Joseph P. Liu, Regulatory Copyright, 83 N.C. L. Rev. 87 (2004).
235. It is difficult to discern Corley's argument because the trial judge was so unsympathetic to it. The briefs are available at http://cyber.law.harvard.edu/openlaw/DVD/NY/ (last visited Feb. 9, 2006).
237. See, e.g., Yochai Benkler, Free As the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain, 74 N.Y.U. L. Rev. 354 (1999); Glynn S. Lunney, Jr., The Death of Copyright: Digital Technology, Private Copying, and the Digital Millennium Copyright Act, 87 Va. L. Rev. 813 (2001); Neil Weinstock Netanel, Locating
limiting principles proposed by Corley and his amici. Yet, despite the Reimerdes decision, DeCSS remains widely available on the Internet.

More recent cases have conceived of the DMCA anti-circumvention rules as intended to confer a limited monopoly right that plaintiffs can only invoke when bypassing a TPM either causes or poses a serious threat of copyright infringement. In Lexmark International, Inc. v. Static Control Components, Inc., for example, the United States Court of Appeals for the Sixth Circuit ruled that Static Control had not violated the DMCA anti-circumvention rules when it installed software in printer cartridges that bypassed an access control that Lexmark used in its printers so that only Lexmark cartridges would be compatible with that firm’s printers. Although Lexmark’s claim was plausible under the interpretation of the anti-circumvention rules in Reimerdes, the court recognized that the DMCA rules had been adopted to prevent copyright infringements, not competition among makers of printer cartridges.

Nowhere in its deliberations over the DMCA did Congress express an interest in creating liability for the circumvention of technological measures designed to prevent consumers from using consumer goods while leaving the copyrightable content of a work unprotected. In fact, Congress added the interoperability provision in part to ensure that the DMCA would not diminish the benefit to consumers of interoperable devices “in the consumer electronics environment.”

The Federal Circuit has taken a similarly restrictive view of the anti-circumvention rules, saying plaintiffs must prove that the circumvention of the technological measure either “infringes or facilitates infringing a right protected by the Copyright Act.” In the lingo of Justice Stevens’s opinion in Sony, courts in DMCA cases should construe exclusive rights


240. 387 F.3d 522 (6th Cir. 2004). Because Static Controls copied one of the programs installed in Lexmark’s printer cartridge, Lexmark also sued for copyright infringement. The court ruled that this lock-out code was not copyrightable, and hence, Static Controls’ copying did not infringe. Id. at 554-56.


242. Lexmark, 387 F.3d at 549 (citations omitted).

243. Chamberlain Group, Inc. v. Skylink Tech., Inc., 381 F.3d 1178, 1203 (Fed. Cir. 2004) (holding that the DMCA was not violated by a firm selling a universal garage door opener); accord Storage Tech. Corp. v. Custom Hardware Eng’g & Consulting, Inc., 421 F.3d 1307 (Fed. Cir. 2005) (holding that the DMCA was not violated by a maintenance service provider).
narrowly and in light of the overall purposes of the law unless Congress has made explicit that the monopoly right should be construed as the plaintiff has requested. Otherwise, innovation and competition may be unreasonably restricted.

**D. Private or Personal Use Copying**

*Sony* has also had a profound impact on the perceived legality of private or personal use copying. Few subjects in copyright law have given rise to more contention than whether, or to what extent, private or personal use copying is lawful. In a memorandum prepared while the Court was considering *Sony*, Justice Stevens questioned whether private or personal use copying should ever be considered infringing while Justice Blackmun questioned whether private or personal use copying should ever be lawful insofar as the copier consumed the work, rather than making productive use of it, insofar as the whole of the work was copied, and insofar as the rights holders might wish to charge a fee for the privilege of making a private or personal copy. Justice Stevens was able to persuade four of his colleagues to accept not only that time-shift copying was fair, but also that private noncommercial copying should be deemed presumptively fair.

The legality of private or personal use copying has rarely been tested in litigation because such copying tends to occur in low visibility circumstances; even if such copying is detected, it is generally not cost efficient to bring a lawsuit to challenge it. The general public’s view of private or personal use copying is, however, far closer to the views expressed in Justice Stevens’s opinion in *Sony* than to those expressed by Justice Blackmun. Private or personal use copying has, if anything,

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245. See supra note 77 and accompanying text.

246. See supra notes 122-33 and accompanying text.


248. In the *Sony* case, Universal’s lawyers persuaded one of its clients to be named as a defendant in the lawsuit and to testify about his personal use copying. As a condition of adding him as a defendant, Universal agreed not to seek any damages or other relief against him. See Universal City Studios, Inc. v. Sony Corp. of Am., 480 F. Supp. 429, 436-37 (C.D. Cal. 1979), rev’d, 659 F.2d 963 (9th Cir. 1981), rev’d, 464 U.S. 417 (1984). In at least one case, a user of a digital video technology successfully intervened in a lawsuit brought by the entertainment industry against the maker of the technology he had purchased, asserting he had standing to intervene because the court would be addressing whether his use of the technology was fair use or infringement. See Newmark v. Turner Broad. Network, 226 F. Supp. 2d 1215 (C.D. Cal. 2002).

249. Goldstein, supra note 221, at 106; Nat’l Research Council, supra note 244, at 130; see also Office of Tech. Assessment, Copyright & Home Copying: Technology Challenges the Law 3 (1989) (reporting on a survey showing that four out of ten Americans over the age of ten had copied music in the previous year, that “Americans tape-recorded individual musical pieces over one billion times per year,” and that “the public—those who had taped
become more prevalent since *Sony*. This has posed significant challenges for copyright industries that would like to extend their markets for delivering content to the home or to consumers' personal devices.

The split within the Court in *Sony* over private or personal use copying was almost certainly colored by a case that had come before the Court shortly before Justice Stevens joined the Court. In *Williams & Wilkins Co. v. United States*, a publisher argued that a photocopying service provided by the library of the National Institutes of Health ("NIH") was engaged in copyright infringement when it copied articles from the publisher's *Journal of Immunology* for NIH researchers. NIH argued that the copies were fair uses because of the research purposes of those who requested copies and of NIH, because the works were fact intensive, and because there was no, or only negligible, harm to the market as the library had already purchased the journals and individual researchers were unlikely to subscribe if unable to use the library's copying service.

The trial court agreed with the publisher that this copying was infringement, but the Court of Customs and Patent Appeals agreed with NIH that the copying was fair use. The publisher appealed, and the Court agreed to hear the appeal. During the oral argument, Justice Thurgood Marshall asked the publishers' lawyers if members of Congress infringed copyrights when they asked for photocopies of articles relevant to their work, and Justice Warren Burger asked whether members of the Court infringed if they asked for photocopies to be made of a chapter of a book borrowed from the Library of Congress. These questions suggested that key members of the Court were sympathetic to NIH's fair use argument. Yet, the Court split 4-4 on the fair use issue; Justice Blackmun did not take part in the decision.

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and those who had not—believe it is acceptable to copy recorded music for one's own use or to give to a friend as long as the copies are not sold.

251. See, e.g., Goldstein, *supra* note 221, at 207-08.
253. See Goldstein, *supra* note 221, at 63-103 (recounting the *Williams & Wilkins* litigation story).
254. *Williams & Wilkins*, 487 F.2d 1345.
256. *Williams & Wilkins*, 420 U.S. at 378.
257. Professor Goldstein suggests this was because Justice Harry Blackmun had in the past served as in-house counsel for the Mayo Clinic which filed an amicus brief in support of National Institutes of Health's position. Goldstein, *supra* note 221, at 102. In view of his strong views on private copying in *Sony*, see *supra* notes 118-47 and accompanying text, it seems likely that Justice Blackmun would have been the fifth vote to reverse in *Williams & Wilkins*. As a circuit judge, Justice Blackmun wrote an opinion in *Wihol v. Crow*, 309 F.2d 777 (8th Cir. 1962), holding that photocopying choral materials for a nonprofit performance was unfair.
The case most closely resembling *Williams & Wilkins* in the subsequent case law was *American Geophysical Union v. Texaco Inc.* Publishers of eighty-two scientific and technical journals brought suit against Texaco for copyright infringement arising from photocopying of articles from these journals by Texaco's 400-500 research scientists. To limit litigation costs, the parties agreed that Texaco's fair use defense would be tested by considering eight photocopies in the files of one Texaco researcher, Donald Chickering.

Texaco argued that Chickering's uses were fair because the copies were personal use copies made to advance research; because the articles copied were fact intensive and Chickering was only interested in them because of the facts and ideas they contained; because individual articles, not whole journals were copied, and because Texaco had subscribed to the journals at an institutional rate. Texaco relied in part on *Sony* in support of its fair use argument.

The publishers contended, and Judge Jon O. Newman for a 2-1 majority agreed, that the uses were unfair in a high protectionist analysis akin to that employed by Justice Blackmun in *Sony*. The copies were consumptive, rather than productive (that is, the copies did not produce new knowledge), because whole articles were copied, and because the potential market for collecting fees through the Copyright Clearance Center was being harmed by Texaco's unwillingness to pay for these copies. Although publishers also succeeded in a similar lawsuit against photocopy shops for reproducing academic course packs for sale to students, publishers have thus far not pursued litigation against universities for personal use copies of copyrighted articles made by faculty and students who would arguably present more sympathetic fair use claims that would almost certainly rely on *Sony*. Private and personal use copying remains prevalent and widely viewed, at least by members of the public, as fair use.

The Supreme Court did say a few things about private or personal use copying in *Grokster*. The main "private" or "personal" use copying issue arguably before the Court was the legality of p2p file sharing of copyrighted sound recordings and music, for Grokster could not be indirectly liable for copyright infringement without proof of infringements to which it had contributed. "MGM's evidence," said the Court,
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gives reason to think that the vast majority of users' downloads are acts of infringement, and because well over 100 million copies of the software in question are known to have been downloaded, and billions of files are shared across the FastTrack and Gnutella networks each month, the probable scope of copyright infringement is staggering.264

The scale and scope of p2p copying, the public nature of the searches and exchanges on the Internet, the copying of whole movies and recorded albums, and the potential for harm to the market make this form of personal use copying an implausible candidate for fair use.265 Yet, the Court now appears to be unanimous in regarding time-shift copying as in Sony as a fair use.266 This in itself is a remarkable evolution. Indeed, the Court in Grokster arguably went further than the majority had been willing to go in Sony in saying that although Sony's ads had "urged consumers to buy the VCR to 'record favorite shows' or 'build a library' of recorded programs, neither of these uses was necessarily infringing."267 This suggests that the Court has a more favorable view about private or personal use copying than the long-ago deep splits in Williams & Wilkins and Sony might have suggested.

E. Backup Copying and Space, Platform, and Format Shifting

To illustrate the continued vitality of Sony as a precedent supporting fair use for a significant number of private or personal use copies, this section discusses some common personal uses such as backup copying and space, platform and format shifting which I regard as fair uses under Sony.268 Backup copying of digital information is widely considered to be a sound and lawful practice because computers may "crash" or get stolen, either of which may cause users to lose information stored on them.269 Although Congress adopted a special exception that permits backup (archival) copying of programs to accommodate this sound practice,270 there is no comparable provision that privileges backup copying of other digital works, such as electronic books, articles, or music. I contend that backup copying

264. Grokster, 125 S. Ct. at 2772. Unlike Napster, see supra note 173 and accompanying text, Grokster did not contest that most downloads were infringing. See BMG Music v. Gonzalez, 430 F.3d 888 (7th Cir. 2005) (affirming that personal use copying of copyrighted sound recordings through p2p file-sharing is infringement).

265. Given the Court's reaction, it is not surprising that fair use arguments for file-sharing were not well-received in BMG. See BMG Music, 430 F.3d 888 (rejecting the fair use defense of a p2p file sharer).

266. Grokster, 125 S. Ct. at 2777.

267. Id. (citations omitted). Although Justice Stevens was willing to say that building a personal use library was fair use, other Justices at the time were reluctant to go that far. See Litman, supra note 61.


269. Vault Corp. v. Quaid Software Ltd., 847 F.2d 255, 264 n.18 (5th Cir. 1988).

of this content too is fair use and sound practice.\(^{271}\) The purpose of the use, as in *Sony*, is private and noncommercial, and the copying is typically of content the backup copier is entitled to access and use. Whole works are copied in the course of backups, but backup copies are only utilized if a problem arises, and the harm to copyright owners is minimal or nonexistent.\(^{272}\)

Very similar arguments can be made that format shifting, platform shifting, and space shifting, as well as time shifting should be fair uses.\(^{273}\) Format shifting, that is, transforming a digital file from, for example, a WMA to an MP3 format in order to be able to listen to the file on an MP3 player, is a common and well-accepted practice.\(^{274}\) Platform shifting, that is, making a copy of a digital work to make it playable on a different device is similarly widely accepted as fair. During oral argument before the Supreme Court in the *Grokster* case, MGM’s counsel conceded that “ripping” music from a purchased CD to play on one’s computer or an iPod is fair use.\(^{275}\) This is a form of platform shifting.

The Ninth Circuit invoked *Sony* in opining that space shifting of digital music does not infringe copyrights. In *Recording Industry Ass’n of America v. Diamond Multimedia Systems*,\(^ {276}\) the principal question was whether Diamond could make and sell the Rio, a portable music device for playing MP3 files of music, without building into it the SCMS chip required by the AHRA. The court ruled that the Rio was not covered by the AHRA, and considered its principal use to be lawful:

> The Rio merely makes copies in order to render portable, or “space-shift,” those files that already reside on a user’s hard drive. *Cf. Sony Corp. of America v. Universal City Studios*, 464 U.S. 417, 455, 104 S. Ct. 774, 78 L. Ed. 2d 574 (1984) (holding that “time-shifting” of copyrighted television shows with VCR’s constitutes fair use under the Copyright Act, and thus is not an infringement). Such copying is paradigmatic

\(^{271}\) See, e.g., Litman, *supra* note 262.

\(^{272}\) Justice Blackmun’s high-protectionist framework might yield a finding of unfairness, for the copies would be nonproductive, the content copied might include entertainment works (such as MP3 files), whole works would be copied, and copyright owners might be interested in exploiting the market for new copies after copies on hard drives were no longer available to users. See *supra* notes 118-47 and accompanying text.

\(^{273}\) See DigitalConsumer.org, *supra* note 268.

\(^{274}\) In *RealNetworks, Inc. v. Streambox, Inc.*, No. 2:99CV02070, 2000 WL 127311 (W.D. Wash. Jan. 18, 2000), the court rejected RealNetwork’s argument that Streambox’s “ripper” software for transforming digital files from one format to another violated the DMCA anti-circumvention rules. The court reasoned that formats were not considered effective technical protection measures, and it was common for firms and individuals to format shift for legitimate purposes. See id. at *10-11.


\(^{276}\) 180 F.3d 1072 (9th Cir. 1999).
noncommercial personal use entirely consistent with the purposes of the Act.\textsuperscript{277}

Noncommercial copying of analog sound recordings and digital audio files covered by the AHRA is, moreover, statutorily immunized from copyright liability.\textsuperscript{278}

Even though backup and time, place, and format shifting may be easy fair use cases, commercial firms that seek to facilitate such fair uses have encountered legal challenges. MP3.com, for example, cast itself as a facilitator of customer place shifting, which it believed was lawful under \textit{Sony}. Its “MyMP3.com” service allowed subscribers to store and listen to recordings from CDs they owned from anywhere having an Internet connection.\textsuperscript{279} MP3.com verified user ownership of CDs for their MP3.com “lockers” in one of two ways: by having customers load the owned CD onto their networked computers or by verifying purchases of CDs from an online vendor. To make this new service work, MP3.com purchased thousands of CDs and copied the music from them onto the firm’s servers, from which subscribers could then listen to the music they already owned. MP3.com argued that the database of music ripped from these CDs was fair use akin to the intermediate copying for reverse engineering purposes that the Ninth Circuit had ruled was fair use in \textit{Sega Enterprises Ltd. v. Accolade, Inc.}\textsuperscript{280}

The trial judge in \textit{UMG Recordings, Inc. v. MP3.com, Inc.} rejected MP3.com’s fair use argument in a high-protectionist, Blackmun-style opinion.\textsuperscript{281} MP3.com’s purpose in making copies was commercial and non-productive.\textsuperscript{282} Whole works were copied, and they were entertainment works that tend to enjoy greater protection from fair use than other works.\textsuperscript{283} The harm to UMG’s market was harm to the licensing fees it would have charged firms like MP3.com to offer such a service.\textsuperscript{284} To MP3.com’s proffered societal benefits, the court responded,

Any allegedly positive impact of defendant’s activities on plaintiffs’ prior market in no way frees defendant to usurp a further market that directly derives from reproduction of the plaintiffs’ copyrighted works. This would be so even if the copyrightholder had not yet entered the new market in issue, for a copyrightholder’s “exclusive” rights, derived from the Constitution and the Copyright Act, include the right, within broad limits, to curb the development of such a derivative market by refusing to

\textsuperscript{277} \textit{Id.} at 1079.
\textsuperscript{278} 17 U.S.C. § 1008 (2000).
\textsuperscript{280} 977 F.2d 1510 (9th Cir. 1992) (discussed \textit{infra} notes 290-306 and accompanying text). As shown below, Accolade relied heavily on \textit{Sony} for support of its fair use claim.
\textsuperscript{281} \textit{MP3.com}, 92 F. Supp. 2d 349.
\textsuperscript{282} \textit{Id.} at 351.
\textsuperscript{283} \textit{Id.} at 351-52.
\textsuperscript{284} \textit{Id.} at 352.
license a copyrighted work or by doing so only on terms the copyright
owner finds acceptable. . . .

. . . Copyright, however, is not designed to afford consumer protection
or convenience but, rather, to protect the copyrightholders' property
interests . . . . Stripped to its essence, defendant's "consumer protection"
argument amounts to nothing more than a bald claim that defendant
should be able to misappropriate plaintiffs' property simply because there
is a consumer demand for it. This hardly appeals to the conscience of
equity.285

The rationale for the MP3.com ruling, like the Texaco ruling discussed
above, follow the analytic path articulated in Justice Blackmun's dissent.286
It may be that Justice Stevens would also have ruled against MP3.com's fair
use defense, but the reasoning he would have used would have likely been
quite different. It is interesting that technology developers are able under
Sony to facilitate customers' fair uses, but service provider-facilitators such
as MP3.com have generally not fared well in the modern U.S. copyright
case law.

F. Reverse Engineering of Computer Software

Sony was a key precedent relied upon by courts considering whether
copies made of computer programs in the course of reverse engineering,
undertaken for purposes of achieving interoperability among programs,
qualified as fair uses. This was among the most contentious copyright
issues of the late 1980s and early 1990s.287 Reverse engineering was often
necessary in order to get access to information about the program's
functions or interface specifications for achieving interoperability when
source code forms of programs were not publicly available.288 Reverse

285. Id. (citation omitted).
286. See supra notes 258-60 and accompanying text.
287. The literature on reverse engineering of computer programs is vast. The most
prominent article arguing that reverse engineering of software violated copyright law is
Arthur R. Miller, Copyright Protection for Computer Programs, Databases, and Computer-
the many articles arguing that reverse engineering programs do not violate copyright law are:
Julie E. Cohen, Reverse Engineering and the Rise of Electronic Vigilantism: Intellectual
Property Implications of "Lock-out" Programs, 68 S. Cal. L. Rev. 1091 (1995); Dennis S.
Karjala, Copyright Protection of Computer Documents, Reverse Engineering, and Professor
Miller, 19 U. Dayton L. Rev. 975 (1994); Jessica Litman, Copyright and Information Policy,
Law & Contemp. Probs., Spring 1992, at 185. For a fuller bibliography of this literature, see
Pamela Samuelson & Suzanne Scotchmer, The Law and Economics of Reverse Engineering,
111 Yale L. J. 1575, 1609 n.163 (2002).
288. See, e.g., Andrew Johnson-Laird, Reverse Engineering of Software: Separating
Legal Mythology from Actual Technology, 5 Software L.J. 331 (1992). In recent years, it has
become more common for programs to be released with source code, especially code
released under the General Public License published by the Free Software Foundation and
code released under open source licenses. For a definition of open source as a form of
software distribution, see Open Source Initiative, http://www.opensource.org (last visited
Feb. 3, 2006).
engineering inevitably involves making unauthorized copies of the program code, which some claimed was copyright infringement.\textsuperscript{289}

The seminal case on the legality of reverse engineering, as a matter of copyright law, is \textit{Sega Enterprises Ltd. v. Accolade, Inc.}\textsuperscript{290} Sega was the maker of the Genesis videogame platform as well as the maker and licensor for videogames for the Genesis platform. Sega sued Accolade for copyright infringement because Accolade reverse engineered Sega program code in order to discern information necessary for making games that could interoperate with the Genesis platform.\textsuperscript{291} Accolade’s principal defense was that reverse-engineering copies qualified as fair uses.\textsuperscript{292}

Sega responded to this defense with a high protectionist analysis akin to Justice Blackmun’s dissent in \textit{Sony}: Accolade’s purpose was commercial, and hence presumptively unfair.\textsuperscript{293} The information Accolade sought was unpublished, which also weighed against fair use.\textsuperscript{294} The whole of the program had also been copied.\textsuperscript{295} Accolade’s reverse engineering had resulted in actual or potential harm to its market,\textsuperscript{296} Sega argued, and thus all factors weighed against fair use.

The Ninth Circuit disagreed with Sega’s fair use analysis. It rejected as “far too simple” Sega’s argument that Accolade’s commercial purpose should cause its use of Sega’s work to be presumed unfair.\textsuperscript{297} Among the other relevant considerations were that “Accolade copied Sega’s software solely in order to discover the functional requirements for compatibility with the Genesis console.”\textsuperscript{298} Accolade had developed its own games independently, and its “identification of the functional requirements for

\textsuperscript{289} See, e.g., Allen R. Grogan, \textit{Decompilation and Disassembly: Undoing Software Protection}, Computer Law., Feb. 1984, at 1. Decompilation was, in Grogan’s view, copyright infringement because it involved making unauthorized copies of the program, in violation of the author’s exclusive right to reproduce the work in copies under 17 U.S.C. § 106(1) (2000). Decompilation was trade secret misappropriation because the unlawful copies made in the course of reverse engineering were an improper means of obtaining trade secrets embodied in the code. Insofar as the program being decompiled was also protected by a shrinkwrap license agreement whose terms included an anti-reverse-engineering provision, decompilation was also a wrongful means of obtaining the secret for a second reason. IBM Corp. was among the firms that argued against the legality of software reverse engineering. \textit{See} Nat’l Research Council, Intellectual Property Issues in Software 78 (1991).

\textsuperscript{290} 977 F.2d 1510 (9th Cir. 1992); \textit{see also} Atari Games Corp. v. Nintendo of Am. Inc., 975 F.2d 832 (Fed. Cir. 1992).

\textsuperscript{291} \textit{Sega}, 977 F.2d at 1514-16.

\textsuperscript{292} \textit{Id.} at 1521-28.


\textsuperscript{294} \textit{Sega}, 977 F.2d at 1526 n.9. Sega invoked \textit{Harper & Row} for the proposition that fair use was rarely available as to unpublished information.

\textsuperscript{295} \textit{Id.} at 1526-27.

\textsuperscript{296} \textit{Id.} at 1523-24. Sega licensed numerous other firms to make games that interopereated with its Genesis platform, although it offered terms that Accolade found unattractive.

\textsuperscript{297} \textit{Id.} at 1522.

\textsuperscript{298} \textit{Id.}
Genesis compatibility has led to an increase in the number of independently
developed designed video game programs offered for use with the Genesis
console." The only harm Sega could have suffered arose from
competition between its games and non-infringing games such as
Accolade’s.

In explaining its conclusion that reverse engineering was fair use, the
Ninth Circuit relied upon *Sony* in two key respects. First, although copying
the whole of Sega’s programs did weigh against fair use, the court cited
*Sony* as “‘teach[ing] us that the copying of an entire work does not preclude
fair use per se.’” Second, the Ninth Circuit cited *Sony* for the
proposition that “[w]hen technological change has rendered an aspect or
application of the Copyright Act ambiguous, ‘the Copyright Act must be
construed in light of [its] basic purpose.’” To construe the law as Sega
proposed would defeat, not promote, the basic purposes of copyright law.
Sega’s argument would “confer[] on the copyright owner a *de facto*
monopoly over [the program’s] ideas and functional concepts.” *Sony*
thus contributed to the conceptual groundings for the *Sega* ruling, which
has been consistently followed in the years thereafter.

G. Safe Harbor for Add-On Software

The influence of *Sony* was also evident in the Ninth Circuit’s decision in
*Lewis Galoob Toys, Inc. v. Nintendo of America, Inc.* Galoob distributed

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299. *Id.* at 1523.
300. *Id.* at 1523-24. Accolade’s games for the Sega platform gave the public more
choices of competing products from which to choose, and besides, many consumers buy
multiple games.
301. *Id.* at 1526 (quoting Hustler Magazine, Inc. v. Moral Majority, Inc., 796 F.2d 1148,
1155 (9th Cir. 1986)).
302. *Id.* at 1527 (quoting Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156
(1975)).
303. *Id.*
304. *Id.*
305. The Court’s decisions in *Feist Publications, Inc. v. Rural Telephone Service Co.,*
499 U.S. 340 (1991), and *Baker v. Selden,* 101 U.S. 99 (1880), were also important to the
Ninth Circuit’s fair use analysis. *Sega,* 977 F.2d at 1523-27.
306. *See,* e.g., *Sony Computer Entm’t Inc. v. Connectix Corp.,* 203 F.3d 596 (9th Cir.
2000); *DSC Commc’ns Corp. v. DGI Tech., Inc.,* 81 F.3d 597 (5th Cir. 1996); *Bateman v.
Mnemonics, Inc.,* 79 F.3d 1532 (11th Cir. 1996). All of these cases also cite *Sony* in support
of their analyses in favor of reverse engineering.
307. 964 F.2d 965 (9th Cir. 1992). While the safe harbor for add-on software may seem
to be a subset of the technology safe harbor discussed above in section A, I have chosen to
highlight this aspect of *Sony’s* legacy in a separate section because it raises questions,
especially about derivative work rights, that do not arise in reprography technology cases,
such as *Sony* and the peer-to-peer cases. There is a stronger argument, for example, that
copyright owners have an interest in control over the market for complementary products or
services that alter the rendering of the copyrighted content. *See* Motion Picture Studio
Defendants’ Response Brief in Opposition to Clearplay, Inc.’s, Trilogy Studios, Inc.’s, and
Family Shield Techs., LLC’s Motion for Summary Judgment, Huntsman v. Soderburgh, No.
http://www.eff.org/legal/cases/Huntsman_v_Soderbergh/response_and_appendix.pdf (discussing derivative work issues posed by add-on software that alters the rendering of
a computer program, known as the "Game Genie," that allowed owners of copies of Nintendo games to use it in conjunction with the Nintendo games to make some changes in the play of the games, for example, by "extending" the life of a favored character. Nintendo claimed that the changed play of its games created infringing derivative works and that Galoob was liable for infringement for knowingly contributing to this infringement. Galoob sought a declaratory judgment of noninfringement.

Because the Game Genie did not permanently change the play of the Nintendo games, the Ninth Circuit questioned whether its use actually created a derivative work, but even if it did, the court ruled that use of the Game Genie qualified as a fair use. Nintendo characterized Galoob's purpose in selling the Game Genie as commercial, a factor weighing against fair use, but the Ninth Circuit pointed out that the Court in *Sony* had directed courts to consider the purpose of individuals engaged in time shifting Betamax machines, so the proper focus was on the purpose of users of the Game Genie, which was, as in *Sony*, private and noncommercial. The court invoked *Sony*'s presumption of fairness for private noncommercial activities, such as time-shift copying or using the Game Genie in the privacy of one's home. Nintendo sought to distinguish *Sony* because it involved copying of copyrighted works, not the making of derivative works:

"The consumers in *Sony* could lawfully copy the copyrighted works because they were invited to view those works free of charge. Game Genie users, in contrast, are not invited to view derivative works based on Nintendo's copyrighted works without first paying for that privilege. *Sony* cannot be read so narrowly. It is difficult to imagine that the Court would have reached a different conclusion if Betamax purchasers were skipping portions of copyrighted works or viewing denouements before climaxes. *Sony* recognizes that a party who distributes a copyrighted work cannot dictate how that work is to be enjoyed. Consumers may use a Betamax to view copyrighted works at a more convenient time. They similarly may use a Game Genie to enhance a Nintendo Game cartridge's audiovisual display in such a way as to make the experience more enjoyable."

Nintendo's claim that the Game Genie displaced a potential market for altered games did not persuade the Ninth Circuit. The Ninth Circuit agreed

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308. *Galoob*, 964 F.2d at 968-69.
309. *Id.* at 970-72.
310. *Id.* at 970.
311. *Id.*
312. *Id.* at 971.

*copyrighted movies); see also Pamela Samuelson, Fair Use for Computer Programs and Other Copyrightable Works in Digital Form: The Implications of Sony, Galoob and Sega, 1 J. Intell. Prop. L. 49 (1993) (discussing the implications of Galoob for digital enhancement tools).*
with the trial court that Nintendo had failed to show, as Sony required, a meaningful likelihood of present or future harm.  

_Huntsman v. Soderbergh_ was a similar lawsuit to test the lawfulness of add-on software enabling individuals who had purchased or rented DVD movies to watch them in a way that enhanced the family viewing experience. Huntsman was a principal in one of the software companies that created programs to allow users to skip or mute scenes depicting sex, nudity, violence, and/or profane language. Huntsman, his firm, and developers of similar technologies asked for a declaratory judgment of noninfringement on trademark and copyright claims being made by director Steven Soderbergh, the Directors Guild, and major movie studios. Huntsman viewed _Galoob_ and _Sony_ as two precedents strongly supporting his claim of noninfringement. Before this lawsuit could proceed to judgment, Congress amended the copyright statute to permit development and distribution of such technologies. As in _Sony_ and _Galoob_, this law protects the autonomy interests of individuals in being able to control their experience as viewers of copyrighted content in the privacy of their homes.

**H. Internet Service and Access Providers**

The _Sony_ decision did not contemplate what impact digital technologies and the Internet might have on copyright owners, but its framework for analysis has been influential in a number of cases involving Internet service and access providers. Prior to enactment of the DMCA, there was considerable uncertainty about the copyright liability of Internet service (and access) providers (“ISPs”). The Clinton Administration asserted that ISPs were directly and appropriately liable for the transmission of infringing files between users because of the temporary copies of copyrighted works made in the random access memory (“RAM”) of ISP computers in the course of transmission, as well as for infringing copies stored on ISP computers in individual user accounts, even those of which ISPs were ignorant. The Clinton Administration’s interpretation of copyright law would also have regarded as infringement caching of copyrighted digital content that an ISP obtained from external websites to ensure speedier access to popular websites for their customers.

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313. *Id.* at 972.
315. Copies of legal briefs from this case are available at http://www.eff.org/legal/cases/Huntsman_v_Soderbergh/ (last visited Feb. 3, 2006).
Telecommunications providers and ISPs argued that they were not and should not be liable for infringing transmissions, for infringing files of which they were ignorant, or for caching files from publicly accessible websites. *Sony* was the principal opinion supporting the telecom/ISPs' position. Caching, for example, may involve the copying of entire works, but *Sony* made clear that this did not necessarily disqualify a use from being fair. The content being cached had been made available on the Internet without charge, like the broadcast programs in *Sony*. Cached copies enabled personal uses of this content, akin to the time-shifted access in *Sony*. There was, moreover, little likelihood of harm to the market for content posted on the open Internet. To forbid caching as a copyright infringement would, as in *Sony*, "merely inhibit access to ideas without any countervailing benefit."  

ISPs charged with direct infringement for activities of this sort have invoked *Sony* as a precedent for holding that non-volitional copying such as automatic copying of digital content transmitted via the Internet should not be infringement. In *CoStar Group, Inc. v. Loopnet, Inc.*, for instance, the United States Court of Appeals for the Fourth Circuit rejected CoStar's direct infringement claim, saying,

> While the Copyright Act does not require that the infringer know that he is infringing or that his conduct amount to a willful violation of the copyright owner's rights, it nonetheless requires conduct by a person who causes in some meaningful way an infringement. Were this not so, the Supreme Court could not have held, as it did in *Sony*, that a manufacturer of copy machines, possessing constructive knowledge that purchasers of its machine may be using them to engage in copyright infringement, is not strictly liable for infringement.  

ISPs can, of course, be held indirectly liable for contributory or vicarious infringement, but liability under these theories "would require a showing of additional elements such as knowledge coupled with inducement or supervision coupled with a financial interest in the illegal copying."  

The court concluded that the DMCA safe harbors protect ISPs from both direct and indirect liability unless they fail to comply with safe harbor requirements.  

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321. 373 F.3d 544 (4th Cir. 2004).  
322. *Id.* at 549 (citing *Sony*, 464 U.S. at 439-42).  
323. *Id.*  
324. *Id.*  
I. Search Engines

Sony has also been an important precedent in cases considering liability of search engines that, like ISPs, make digital copies of copyrighted content available on the Internet. Search engines do so in the course of "spidering" the ‘net in order to prepare indexes or otherwise facilitate users’ access to content for which they are searching. The DMCA creates another safe harbor for search engines and other information-locating tools, which is subject, as with caching and storage of user information, to requirements that such tools block access to infringing materials upon receiving proper notice of illicit content. This DMCA safe harbor for search engines is consistent with Justice Stevens’s decision in Sony.

The maker of a specialized search engine for images was challenged as a direct infringer in Kelly v. Arriba Soft Corp. because it made thumbnail size copies of digital images posted on the Internet, including those of Kelly, a commercial photographer. Arriba sent a web-crawler onto the web to look for images to index. The crawler downloaded full-sized copies of the images onto Arriba’s server and used these copies to generate smaller, lower-resolution thumbnails of the images. After creating the thumbnails, the full-sized originals were deleted from Arriba’s server. A user of Arriba’s search engine could copy the thumbnails onto his computer, but could not increase the resolution of the thumbnail.

Kelly responded to Arriba’s fair use defense by emphasizing, as Justice Blackmun would have, Arriba’s commercial purpose in making the thumbnail copies, the nonproductive character of the thumbnails, the copying of the whole of each image, and Arriba’s interference with a potential market for Kelly’s work, namely, licensing the right to make such copies by search engines. The Ninth Circuit held, consistent with Sony, that Arriba had made fair use of the digital images. Although it did not directly invoke Sony, its fair use analysis was consistent with Justice Stevens’s opinion in that case.

The thumbnail images had, the court ruled, a different function than the images on Kelly’s site and improved public access to them. This copying did not stifle creativity or displace the market for Kelly’s images; indeed, the thumbnail images made it more likely that users would go to Kelly’s site and purchase rights to use his images. Arriba may have copied the whole image, but given the

327. 336 F.3d 811 (9th Cir. 2003).
328. The direct infringement claim was not based on the copying of the images by the webcrawling program, but only on the reproductions that were visible to users of Arriba’s search engine.
329. Kelly, 336 F.3d at 819-22. Kelly’s argument against fair use in this case was patterned after Justice Blackmun’s dissent in Sony.
330. The Ninth Circuit did, however, rely, in part, on Sony Computer Entertainment America, Inc. v. Bleem, LLC, 214 F.3d 1022 (9th Cir. 2000), which, in turn, had relied upon the Supreme Court’s decision in Sony. See Kelly, 336 F.3d at 820.
331. Kelly, 336 F.3d at 819-20.
332. Id. at 820-21.
necessity of doing so to facilitate access, this factor did not cause the use to be unfair.\footnote{Id. at 821-22.} Justice Stevens’s analytic framework in \textit{Sony}, it seems, sometimes has influence, even when the decision is not directly cited.

\section*{CONCLUSION}

Of the nearly fifty IP decisions rendered by the Supreme Court during the thirty years that Justice Stevens has served on the Court, none has had a more significant economic or social impact than \textit{Sony v. Universal}. Had Justice Stevens written no other opinion for the Court than this, he would be rightly remembered for the insightful and generative decision he wrote in \textit{Sony}.

With the benefit of twenty years of experience, Justice Stevens’s decision in \textit{Sony} seems remarkably prescient. Not only did it pave the way for the untrammeled introduction into the market of iPods, MP3 players, digital video recorders, CD ripping software, CD burners, p2p technologies, and many others, but confirmed that use of such technologies for private and noncommercial purposes generally does not harm the interests of copyright owners. The \textit{Sony} decision helped to promote competition and ongoing innovation in the computer software industry by providing guidance to courts that ruled that unlicensed software developers could reverse engineer computer software for purposes of achieving interoperability among programs. Add-on software that enhances the experience of users of digital information products also has benefited from the framework for analysis provided by Justice Stevens’s decision in \textit{Sony}.

But perhaps the most important impacts of \textit{Sony} have been in mitigating the significance of “non-transformative” copying of whole works made routinely in today’s digital networked environments. It is impossible to access or use copyrighted works in digital form without making incidental copies of them. Courts have recognized that to construe each incidental copy as infringement would stretch copyright law too far. ISPs, the Internet Archive, and Google would have little hope of making plausible fair use arguments for digital copying of many millions of copies of copyrighted works without \textit{Sony}’s framework of analysis.

The stark differences between the analytical frameworks of Justices Stevens and Blackmun in \textit{Sony} have continued to play themselves out in the major copyright controversies of the day. \textit{Texaco} and \textit{MP3.com} are examples of decisions in which a Blackmun-style high protectionist analysis prevailed, while \textit{Sega} and \textit{Kelly} show that a Stevens-like low protectionist analysis has considerable vitality as well.

The rise of global digital networks and advances in the development of information technologies permitting creative uses and reuses of copyrighted content will almost certainly continue to pose difficult questions for the courts and for legislatures. \textit{Sony} provides meaningful guidance about how
copyright law should be construed when new technologies pose questions that the legislatures have not anticipated and case law does not readily provide clear answers. In the IP field, this legacy of Justice Stevens is worth celebrating as part of the Fordham symposium.