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Bowers v. Baystate Technologies: Using the Shrinkwrap License to Circumvent the Copyright Act and Escape Federal Preemption

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INTRODUCTION

> "The primary and most important claim of trade and commerce is to give them surety against highway robbery. In the same way the primary though merely negative demand of the sciences and arts is to insure the workers in these fields against larceny, and give their property protection. But in the case of a mental product the intention is that others should comprehend it, and make its imagination, memory, and thought their own. Learning is not merely the treasuring up of words in the memory; it is through thinking that the thoughts of others are seized, and this after thinking is real learning."[1]

The framers of the United States Constitution agreed with virtual unanimity to entrust copyright law within the federal sphere of national power.[2] Article 1, Section 8, Clause 8 of the United States Constitution gives Congress the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive right to their respective Writings and Discoveries."[3] Congress used this power to regulate the exclusive rights in such creative works by enacting the Copyright Act enumerated in Title 17 of the United States Code.[4]

The current version of the governing statute extends exclusive rights in a variety of creative works, including books, periodicals, manuscripts, music, drama, pictures, sculpture, motion pictures, sound recordings, architecture, and computer programs.[5] The bundle of rights in § 106 of the Act gives

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[1] G.W.F. Hegel, Hegel's Philosophy of Right 74 (S.W. Dyde trans., London, George Bell and Sons 1986).

[2] 1 Melville B. Nimmer & David Nimmer, Nimmer on Copyright § 1.01[A], at 1-4 (2002).

[3] U.S. Const. Art. I, § 8, cl. 8.

[4] *See, e.g.*, 17 U.S.C. § 102 (a) (2000). Upon original enactment in 1790, Congress subsequently amended the Copyright Act four times – in 1831, 1870, 1909, and 1976. The Copvright Act provides protection to original works of authorship fixed in any tangible medium of expression.

[5] *See, e.g.*, 17 U.S.C. §§ 101 and 102 (a) (2000). Congress extended copyright protection to computer programs to the extent that they incorporate authorship in the programmer's expression of

owners of such original works the exclusive rights in reproduction, derivative works, distribution, performance, display, and digital transmission performance.[6] A violation of these rights constitutes copyright infringement, actionable by the owner of the copyrighted material. The succeeding sections of the Copyright Act set forth limitations on these exclusive rights.[7] In particular, § 107 creates an expansive limitation applicable to any of the copyright owner's exclusive rights.[8] Section 107 codifies what is known as the fair use doctrine. The fair use doctrine provides that no infringement occurs where the use alleged is a "fair use .... for purposes of such criticism, comment, news reporting, teaching, scholarship, or research."[9]

Technology opens up new doors for the fair use doctrine and its applicability to the federal pre-emption of state law. The development of software protected by federal copyright spun the right to fair use of the software through reverse engineering. In order to undermine the right of fair use in computer programs, software companies often distribute computer programs in shrink-wrap licenses that prohibit reverse engineering. However, a contractual restriction on reverse engineering, governed by state contract law, directly conflicts with the doctrine of fair use, authorized under the federal copyright system. Limiting the right to fair use by prohibiting reverse engineering is an attempt to expand rights granted under the Copyright Act. Thus, under the Supremacy Clause of the U.S. Constitution, courts should recognize that federal copyright law may preempt state statutory attempts to prohibit reverse engineering.

The Federal Circuit recently confronted this issue in *Bowers v. Baystate Technologies, Inc.*[10] In *Bowers*, the trial court found, and the Federal Circuit affirmed, that federal copyright law does not preempt state contract claims regardless of whether or not the contract at issue attempts to expand or limit the rights granted to copyright holders under the Copyright Act.[11]

This note criticizes the Federal Circuit's majority opinion in *Bowers* as incomplete and proposes a better solution to the problem. Part I reviews the analysis and holding in the case. Part II argues that the analysis suffers from a fundamental problem: the Federal Circuit's failure to apply the

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original ideas, as distinguished from the ideas themselves.

6 *See, e.g.*, 17 U.S.C. § 106 (2000).

7 William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 Harv. L. Rev. 1659, 1662 (1988).

8 *Id.*

9 *See, e.g.*, 17 U.S.C. § 107 (2000). "[N]otwithstanding the provisions of § 106, the fair use of a copyrighted work...is not an infringement of copyright." 17 U.S.C. § 107 (2002).

10 Bowers v. Baystate Technolgies, Inc., 320 F.3d 1317 (Fed. Cir. 2003).

11 *Id.*

constitutionally recognized doctrine of conflict preemption. Part III argues that the majority opinion undermines the federal Copyright Act by failing to recognize the doctrine of fair use and sides with the Federal Circuit's dissenting opinion finding that the majority's approach and logic permits state law to eviscerate an important federal copyright policy reflected in the fair use defense.[12] Part IV sets forth a constitutionally sound analysis of federal copyright preemption in *Bowers* so as to remain consistent with the Supremacy Clause of the U.S. Constitution and mitigate the fundamental problem created by the Federal Circuit's conclusion.

I.

The conflict in *Bowers v. Baystate Technologies* stems from the development of a template to improve computer aided design (CAD) software.[13] Bowers, the creator and patent holder of the CAD software, distributed the software with a shrink-wrap license prohibiting any reverse engineering.[14] Subsequently, Baystate developed and marketed similar software incorporating many of the features contained in Bowers' software.[15] After intense competition between the two, Baystate sued Bowers for declaratory judgment.[16] Bowers counterclaimed for copyright infringement, patent infringement, and breach of contract.[17]

Following a jury verdict in favor of Bowers on all three counts,[18] Baystate filed timely motions for either judgment as a matter of law or for a new trial on each count.[19] This Note only discusses the issue of federal preemption based on the state breach of contract claim as it relates to the federal copyright system.[20]

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12 *Id.* at 1335 (*Dyk, Cir. J., concurring in part and dissenting in part*).

13 Bowers v. Baystate Technolgies, Inc., 320 F.3d 1317, 1321 (Fed. Cir. 2003).

14 *Id.* at 1322.

15 *Id.*

16 *Id.* Baystate requested declaratory judgment that Baystate's products did not infringe Bowers' patent, *Bowers'* patent was invalid, and Bowers' patent was unenforceable.

17 *Id.*

18 *Id.* The district court considered the contract and copyright claims coextensive. The district court instructed the jury that "reverse engineering violates the license agreement only if Baystate's product that resulted from reverse engineering infringes Bowers' copyright because it copies protectable expression." The district court, however, set aside the copyright damages as duplicative of the contract damages.

19 *Bowers*, 320 F.3d at 1322.

20 However, the Federal Circuit affirms the district court's omission of the copyright damages as duplicative of the breach of contract damages and does not reach the merits of the copyright infringement claim. Furthermore, the patent infringement claim is beyond the scope of this note.

Baystate argued that the Copyright Act preempts the prohibition of reverse engineering embodied in Bowers' shrink-wrap license agreement.[21] The Federal Circuit held that, under First Circuit law,[22] the Copyright Act does not preempt or narrow the scope of Bowers' contract claim.[23]

The Federal Circuit based its holding on § 301 of the Copyright Act and applicable case law.[24] Section 301 of the Copyright Act provides that ". . . . all legal or equitable rights that are equivalent to any of the exclusive rights within the general scope of copyright . . . . are governed exclusively by this title."[25] While recognizing the scope of § 301, the Federal Circuit found that the First Circuit does not interpret § 301's language to require preemption as long as "a state cause of action requires an extra element, beyond mere copying, preparation of derivative works, performance, distribution or display."[26] The First Circuit reasoned that the contract claim, requiring findings of mutual asset and consideration, is sufficient to render it qualitatively different from copyright infringement.[27] Furthermore, the Court found that the shrink-wrap agreement was far broader than the protection afforded by copyright law.[28]

II.

The Federal Circuit's opinion is incomplete and fails to recognize the doctrine of conflict preemption. The court's preemption analysis is, therefore, inconsistent with the Supremacy Clause of the U.S. Constitution. The Supremacy Clause allows the federal government to prohibit states from passing laws in conflict with federal law.[29] Thus, any state law in conflict with federal law will be preempted. There are three ways in which Congress may preempt state regulation: by expressly stating the preemption

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21 *Bowers,* 320 F.3d at 1323.

22 *Id.* First Circuit law is applicable as the law of the circuit from which the appeal is taken.

23 *Id.*

24 *Id.* at 1324.

25 17 U.S.C. § 301(a) (2000).

26 *See Bowers,* 320 F.3d at 1324. (citing Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d 1147, 1164 (1st Cir. 1994) (quoting Gates Rubber Co. v. Bando Chemical Industries, Ltd., 9 F.3d 823, 847 (10th Cir. 1993)) and Computer Assoc. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 716 (2d Cir. 1992).

27 *Id.* at 1324. (citing ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996).

28 *Id.* at 1326.

29 *See* U.S. CONST. art. VI, § 2 ("This Constitution, and the laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, and Anything in the Constitution or Laws of any State to the Contrary notwithstanding.").

("express preemption"), by enacting a regulation with which the state regulation in fact conflicts ("conflict preemption"), or by enacting a system of regulations so comprehensive as to displace all state regulations even if they do not conflict with any specific federal one ("occupying the field").[30] Express preemption is where a federal statute explicitly preempts state law.[31] A court may question the extent of the express preemption in order to determine whether the state law at issue falls within the category of laws that are preempted by federal law. [32] Conflict of law preemption occurs when it is impossible to comply with both state and federal law or when the state law prevents the accomplishment of Congress' objectives in enacting the federal regulation.[33] By contrast, field preemption means that there is no federal regulation with which the state law conflicts (otherwise preemption by conflict would occur).[34] Therefore, finding preemption in this category means that the particular federal regulations do not expressly resolve the question of preemption.[35] In other words, the system of federal regulations is so comprehensive that it must implicitly preempt any state regulations attempting to accomplish the same objectives.

Federal copyright law may preempt state claims in either of two ways: by express preemption or through implied conflict preemption.[36] There is no field preemption because the clause of the Constitution granting to Congress the power to issue copyrights does not provide that such power shall vest exclusively in the federal government. Moreover, the Constitution does not provide that such power shall not be exercised by the

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[30] *See* Gade v. Nat'l Solid Mgmt, 505 U.S. 88 (1992); *See also* English v. Gen. Electric Co., 496 U.S. 72, 78-79 (1990); Goldstein v. California, 412 U.S. 546 (1973).

[31] *See* Shaw v. Delta Air Lines, 463 U.S. 85 (1983) (where the Federal Employment Retirement Income Security Act (ERISA) preempts all State laws insofar as they [relate] to any employer benefit plan, covered by ERISA but also provides that the preemption provision shall not impair any other federal law).

[32] *Id.*

[33] *See* Hines v. Davidowitz, 312 U.S. 52, 67 (1941).

[34] Geoffrey R. Stone et al., Constitutional Law 381-382 (3d ed. 1996).

[35] *Id.* (citing Farmers Educ. l & Cooperative Union v. WDAY, Inc., 360 U.S. 525 (1959), which held that the Federal Communications Act, requiring broadcasters to carry some political speeches without censoring them, occupied the field and therefore immunized broadcasters from liability under state libel laws).

[36] *Gade*, 505 U.S. at 98. "Absent explicit pre-emptive language, we have recognized at least two types of implied pre-emption: field pre-emption, where the scheme of federal regulation is 'so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it,' and conflict pre-emption, where 'compliance with both federal and state regulations is a physical impossibility,' or where state law 'stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.'"

States.[37] However, Congress has to a limited extent expressly "preempted the field" of copyright by enacting § 301 of the Copyright Act.[38] Section 301 of the Copyright Act provides that ". . . . all legal or equitable rights that are equivalent to any of the exclusive rights within the general scope of copyright ... in works of authorship that are fixed in a tangible medium of expression and come within the subject matter of copyright ... whether published or unpublished, are governed exclusively by this title ... no person is entitled to any such right or equivalent right in any such work under the common law or statutes of any State."[39] Even if express preemption fails, however, there may be conflict preemption. Conflict preemption would exist if enforcement of the state claim prevents the accomplishment of Congress' objectives in enacting the Copyright Act.

The reasoning in *Bowers* is flawed because the Federal Circuit fails to apply the test for implied conflict preemption. Problematically, the Federal Circuit relies on *Data General* and *ProCD* to support its finding. However, the reasoning and analysis in both *Data General* and *ProCD* are flawed in that they both fail to discuss the applicability of conflict preemption as it applies to the federal preemption of state laws. Section 301 of the Copyright Act only expressly preempts laws that grant rights equivalent to copyright.[40] In the alternative, conflict preemption derives from the U.S. Constitution's Supremacy Clause, Article VI, and its Intellectual Property Clause, Article I, Section 8.[41] As previously discussed, conflict preemption occurs when either the federal and state laws directly conflict, so that it is physically impossible for a party to comply with both, or a state law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."[42] Where a State attempts to protect that which Congress intended to be free from restraint or to free that which Congress intended to protect, there is a conflict between federal copyright law and the state claim.[43] Conflict preemption also occurs if a state law were to restrict the reach of the Copyright Act.[44] The Federal Circuit's majority opinion,

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[37] Goldstein v. California, 412 U.S. 546, 553 (1973).

[38] Mark A. Lemley, *Amici Curiae Brief in Support of Petition or Panel Rehearing and Rehearing En Banc,* Bowers v. Baystate Technologies, Inc. (2002), *available at* http://www.acm.org/usacm/Briefs/bowersVbaystatebrie.htm. *as of* Jan. 27, 2003.

[39] 17 U.S.C. § 301 (2000).

[40] 17 U.S.C. § 301 (2001). *See also* Lemley, *supra* note 38.

[41] Article VI, U.S. Constitution; Article I, § 8, cl. 8, U.S. Constitution. *See also* Lemley, *supra* note 37.

[42] California Fed. Sav. & Loan Ass'n v. Guerra, 479 U.S. 272, 281 (1987). *See also* Lemley, *supra* note 37.

[43] *Goldstein*, 412 U.S. at 559.

[44] Lemley, *supra* note 38.

however, does not discuss whether enforcing a contractual restriction on reverse engineering would have the effect of restricting that which the Copyright Act intended to be free from restraint.

In *ASCAP v. Pataki*, a New York District Court preempted an amendment to a state statute which imposed certain notice requirements on performing rights societies conducting copyright infringement investigations for their member copyright holders.[45] The district court found that "because the notice provisions imposed a notice requirement on copyright enforcers, and made non-compliance with such requirements actionable by the alleged infringer, the provisions hindered the realization of the federal copyright scheme."[46] In addition, the notice requirements attempted to limit the time in which copyright owners could bring a copyright claim, thus, conflicting with the statute of limitations provided under federal copyright law.[47] Finally, the remedies provided in the amendment stood as an obstacle to the enforcement of the federal copyright statute by permitting the alleged infringer to offset federal copyright damages awarded against him with damages entitled to under the state provision.[48] The state statute in *Pataki* required conflict preemption because it attempted to restrict the reach of federal copyright by restricting the circumstances in which a copyright holder could bring a claim of infringement.[49] As in *Pataki*, the state claim in *Bowers* attempts to restrict the reach of federal copyright law using a state governed contract prohibiting reverse engineering, a recognized fair use permitted under § 107 of the Copyright Act.

Just as contractual restrictions on reverse engineering can conflict with federal copyright law, they can also conflict with federal patent law.[50] Confronted with such a situation in *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, the Supreme Court in a unanimous decision held that a Florida statute, prohibiting the unauthorized use of a direct molding process to replicate manufactured boat hulls, conflicted with the federal patent law and was, thus, preempted under the Supremacy Clause.[51] The Court described the

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45 1997 WL 438849 (S.D.N.Y.). Plaintiffs, ASCAP and BMI, are performing rights societies whose members are the creators and owners of copyrighted musical compositions. Such societies are authorized by their members to detect and police infringements of their copyrights, which is necessary to the enforcement of the copyright law. Prior to the filing of a complaint alleging copyright infringement, such societies send a final letter notifying the proprietor of the results of the investigation and identifying the songs that were performed without a license. 1997 WL 438849 at 1-2.

46 *Id* at 4.

47 *Id.*

48 *Id.* at 5.

49 *See* Lemley, *supra* note 38.

50 Lemley, *supra* note 38.

51 489 U.S. 141 (1989). *See* Lemley, *supra* note 38, at 6.

Florida statute as "prohibiting the entire public from engaging in a form of reverse engineering" that is otherwise permissible.[52] Furthermore, the Court stated that "the States may not offer patent-like protection to intellectual property creations which would otherwise remain unprotected as a matter of federal law."[53] If such a prohibition conflicts with federal patent law, a blanket enforcement of contractual restrictions on software reverse engineering must also conflict with the fair use doctrine under federal copyright law. The dissenting Judge in *Bowers* correctly notes that in the patent context, reverse engineering is viewed as an important right of the public.[54] As in *Bonito Boats*, the contractual restriction in *Bowers* prohibits the entire public from engaging in a form of reverse engineering that is otherwise permissible under § 107 of the Copyright Act.

III.

The Federal Circuit's majority opinion on the issue of preemption in *Bowers* undermines the federal Copyright Act because it fails to recognize the doctrine of fair use. Furthermore, failure to apply the test for conflict preemption leaves § 107 of the Copyright Act without substantive meaning. Section 107 of the Copyright Act permits certain fair uses as a defense to copyright infringement.[55] Under § 107 no copyright infringement occurs where the use is a "fair use...for purposes such as criticism, comments, news reporting, teaching, scholarship, or research".[56] The purposes expressly permitted in the language of § 107 are not, however, all-inclusive. When Congress enacted § 107 they expected that courts would adapt fair use exceptions to accommodate technological innovations.[57]

The shrink-wrap license at issue in Bowers prohibits reverse engineering. Reverse engineering, also known as decompilation, is the general process of analyzing a technology specifically to ascertain how it was designed or how it operates—taking something apart to see what makes it tick.[58] Reverse engineering is an important part of the scientific method as

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52 *Bonita Boats*, 489 U.S. at 160.

53 *Id.* at 156.

54 *Bowers*, 320 F.3d at 1336,(*Dyk, Cir. J., concurring in part, dissenting in part*).

55 17 U.S.C. § 107 (2001).

56 *Id.*

57 H.R.Rep. No. 1476, 94th Cong., 2d Sess. 66 (1976).

58 *See* Andrew Johnson-Laird, *Software Reverse Engineering in the Real World*, 19 U. DAYTON L. REV. 843 (1994). There are essentially two reasons why one would need to perform software reverse engineering: (1) to understand how a computer program really works; and (2) to understand why a computer program really does not work. Combining these two reasons together, software engineers often conduct reverse engineering with the desire to produce an improved version of the program under

well as technological development.[59] Generally, it can be an important part of allowing independent manufacturers to participate in competitive markets that reward improvements made on dominant products.[60]

The way in which commercially developed software is published makes reverse engineering a complicated process.[61] The reverse engineering of software generally requires an incidental act of reproduction and/or adaptation of the underlying computer program.[62] The Copyright Act, however, only expressly allows the owner of a copy of a computer program to make an additional copy if the copy is an essential step in the utilization of the computer program or such copy is an archival or backup copy.[63] As a result, software companies often argue that such copies are infringements under the Copyright Act.[64] Reverse engineering, however, is a judicially recognized fair use.[65]

The Federal Circuit in *Atari Games Corp. v. Nintendo,* found that *Atari's* copying of *Nintendo's* protected source code was not authorized.[66] However,

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observation; produce a new program that either interacts directly with the program under observation or exchanges information with it; or to understand why a new program fails to work under its original construction. 19 U.Dayton L. Rev. at 846.

[59] Chilling Effects Clearinghouse: *Frequently Asked Questions about Reverse Engineering, at*: http://www.chillingeffects.org/reverse/faq.cgi.htm. "The process of taking something apart and revealing the way in which it works is often an effective way to learn how to build a technology or make improvements to it. Reverse engineering is the process by which a researcher gathers the technical information necessary for the documentation of the operation of a technology or component of a system. Through this process, researchers are able to examine the strength of systems and identify their weaknesses in terms of performance, security, and interoperability."

[60] *Id.*

[61] "Computer programs are written in specialized alphanumeric languages, or "source codes". In order to operate a computer, source code must be translated into computer readable form, or "object code". Object code uses only two symbols, 0 and 1, in combinations which represent the alphanumeric characters of the source code. A program written in source code is translated into object code using a computer program called an "assember" or "compiler", and then imprinted onto a silicon chip for commercial distribution. Devices called "disassmblers" or "decompilers" can reverse this process by "reading" the electronic signals for "0" and "1", produced while the program is being run, storing the resulting object code in computer memory, and translating the object code into source code. Both assembly and disassembly devices are commercially available, and both types of devices are widely used within the software industry". Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1514, FN2 (9th Cir. 1992).

[62] *Id.*

[63] 17 U.S.C. § 117 (2002).

[64] Chilling Effects Clearinghouse, *supra* note 57.

[65] *See* Atari Games Corp. v. Nintendo, 975 F.2d 832 (Fed. Cir. 1992); Sony Computer Ent. Corp. v. Connectix Corp., 203 F.3d 596 (9th Cir. 2000); Sega Enter. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1527-28 (9th Cir. 1992); Bateman v. Mnemonics, Inc., 79 F.3d 1532 (11th Cir. 1996); *see also* Lemley, *supra* note 38.

[66] *Atari*, 975 F.2d at 842.

Atari was nevertheless exempt from liability because the Federal Circuit found that the copying incidental to reverse engineering could constitute a fair use.[67] The court held that "the Copyright Act permits an individual in rightful possession of a copy of a work to undertake necessary efforts to understand the work's ideas, processes, and methods of operation."[68] The Atari court based its opinion on the Constitutional purpose for copyright protection: "the promotion of 'the Progress of Science and useful Arts'"[69] The Federal Circuit in *Atari*, as well as, a number of other courts correctly recognize that the doctrine of fair use advances the promotion of the progress of science by "encourag[ing] others to build freely upon the ideas and information conveyed by a work."[70] The Federal Circuit in *Atari* noted that "[a] prohibition on all copying whatsoever would stifle the free flow of ideas without serving any legitimate interest of the copyright holder."[71] The majority in *Bowers* recognizes its holding in *Atari,* that "reverse engineering object code to discern the unprotectable ideas in a computer program is a fair use."[72] However, the majority distinguishes *Atari* from *Bowers* by stating that, "application of the First Circuit's view distinguishing a state law contract claim having additional elements of proof from a copyright claim does not alter the findings of *Atari*." In essence, however, the majority's ruling adopts form over substance by allowing that which it previously disallowed solely on the basis that it was done using a contract.[73] The Federal Circuit in *Atari* emphasized that an author cannot achieve protection for an idea simply by embodying it in a computer program.[74] Thus, as the dissenting Judge in *Bowers* correctly stated, the "the fair use defense for

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[67] *Id.*

[68] *Id.*

[69] *Id. See* Lemley, *supra* note 38, at 6.

[70] *Id.* (quoting Feist Publications, Inc., v. Rural Telephone Serv. Co., Inc., 499 U.S. 340, 350 (1991)). *See also* Lemley, *supra* note 37 (citing Sony Computer Ent. Corp. v. Connectix Corp., 203 F.3d 596 (9th Cir. 2000); Sega Enter. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1527-28 (9th Cir. 1992); Bateman v. Mnemonics, Inc., 79 F.3d 1532 (11th Cir. 1996); Lotus Dev. Corp. v. Borland Int'l, 49 F.3d 807 (1st Cir. 1995) (Boudin, J., concurring), *aff'd by equally divided Court* 516 U.S. 233 (1996)).

[71] *Atari*, 975 F.2d at 843.

[72] *Bowers*, 320 F.3d at 1325 (citing *Atari*, at 843).

[73] "However, 'such an action is equivalent in substance to a copyright infringement claim [and thus preempted by the Copyright Act where the additional element merely concerns the extent to which authors and their licensees can prohibit unauthorized copying by third parties." Bowers, at 1335 (*Dyk, Cir. J., concurring in part, dissenting in part)*(citing Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d 1147, 1164-65 (1st Cir. 1994)).

[74] "An author cannot acquire patent-like protection by putting an idea, process, or method of operation in an unintelligible format and asserting copyright infringement against those who try to understand that idea, process, or method of operation." Bowers, 320 F.3d at 1336 (*Dyk, Cir. J., concurring in part, dissenting in part*)(citing *Atari,* 975 F.2d at 842).

reverse engineering is necessary so that copyright protection does not 'extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work,' as proscribed by the Copyright Act."[75] Furthermore, the Supreme Court characterized reverse engineering as "an essential part of innovation, likely to yield variations on the product that may lead to significant advances in the field".[76]

In *Vault Corp. v. Quaid Software, Ltd.*, the Fifth Circuit held that a state law prohibiting all copying of a computer program is preempted by the federal Copyright Act.[77] In *Vault*, a copyright holder developed software designed to prevent unlawful duplication of other software by locking it.[78] The plaintiff-copyright holder sold the software with a shrink-wrap license, which prohibited purchasers from copying or reverse engineering any part of the software.[79] The defendant purchased a copy of the software and reverse engineered it in order to find a way to defeat the copy protection program.[80] The defendant subsequently designed a similar product of its own by incorporating knowledge obtained through reverse engineering plaintiff's protected software.[81] However, the Fifth Circuit held that the defendant did not infringe plaintiff's copyright by reverse engineering even though the defendant used the information to produce similar software.[82] The holding was based on the fact that the final version of defendant's software did not contain any actual copied material.[83] The Federal Circuit's majority opinion distinguishes *Vault* from *Bowers* by finding that preemption of a state law prohibiting all copying of a computer program should not extend to private contractual agreements supported by mutual assent and consideration.[84] However, the Fifth Circuit held that the specific provision of state law authorizing contracts which prohibit reverse engineering, decompilation, or disassembly of computer programs was preempted by federal law because it conflicted with a portion of the Copyright Act and

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75 *Bowers*, 320 F.3d at 1336 (Dyk, Cir. J., concurring in part, dissenting in part) (citing 17 U.S.C. § 102(b) (2000)).

76 Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 160 (1989).

77 847 F. 2d 255 (5th Cir. 1988).

78 *Id.*

79 *Id.* at 257.

80 *Id.*

81 *Id.* at 258.

82 *Id.* at 270.

83 847 F.2d at 255.

84 *Bowers*, 320 F.3d at 1325.

because it "touché[d] upon an area' of federal copyright law."[85] "From a preemption standpoint, there is no distinction between a state law that explicitly validates a contract that restricts reverse engineering and general common law that permits such a restriction."[86]

Further supporting its conclusion, the majority cites a number of cases finding that in some circumstances contractual waiver of statutory rights is permissible.[87] However, of the cases cited by the majority, such circumstances only arise where there is mutual assent and consideration or where the statute's purpose is the protection of the property rights of individual parties...rather than...the protection of the general public.[88] Shrinkwrap agreements mass marketed to the general public are not always supported by mutual assent and consideration and the validity of such agreements present further questions of fact to be determined by the courts. Furthermore, the purpose of the Copyright Act and the doctrine of fair use embodied therein are to protect the fair use property rights afforded to the general public.

Similarly, in *Sega Enterprises, Ltd. v. Accolade, Inc.*, the Ninth Circuit held that the Copyright Act permits as a fair use persons who are neither copyright holders nor licensees to disassemble a copyrighted computer program in order to gain an understanding of the unprotected ideas and functional elements of the program, as long as, the person seeking the understanding has a legitimate reason for doing so and when no other means of access to the unprotected elements exists.[89] Furthermore, the Ninth Circuit found that a legal prohibition on reverse engineering would preclude public access to such ideas and functional elements and "thus confer on the copyright owner a de facto monopoly over those ideas and functional concepts".[90] Such a result, the court noted, would "defeat the fundamental purpose of the Copyright Act," which is "to encourage the production of

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[85] *Id.* at 1337 (*Dyk, Cir. J., concurring in part, dissenting in part)* (quoting Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225, 229 (1964)).

[86] *Id.* (*Dyk, Cir. J., concurring in part, dissenting in part).*

[87] *Id.* at 1325 (citing United States v. Spector, 55 F.3d 22, 24-5 (1st Cir. 1995) (holding that a contractual waiver of the statute of limitations defense constitutes an "effective waiver of defendant's rights under the statute of limitations" if the agreement were properly executed, and the "waiver is made knowingly and voluntarily."); Tompkins v. United Healthcare of New England, 203 F.3d 90, 97 (1st Cir. 2000)(stating that "in some circumstances contractual waiver of statutory rights is permissible," citing Canal Elec. Co. v. Westinghosue Elec. Corp., 548 N.E.2d 182, 187 (Mass. 1990)("a contractual waiver of statutory rights is permissible when the statute's purpose is the 'protection of the property rights of individual parties ... rather than ... the protection of the general public.'").

[88] *Id.*

[89] *Sega*, 977 F.2d at 1514

[90] *Id.* at 1527.

original works by protecting the expressive elements of those works while leaving the ideas, facts, and functional concepts in the public domain for others to build on".[91]

The First Circuit recognized the right to copy methods of operation or functional concepts for others to build on in *Lotus Dev. Corp. v. Borland Int'l, Inc.*[92] In *Lotus*, the court found that a software menu command hierarchy was an uncopyrightable method of operation or functional element.[93] The court noted that "original developers are not the only people entitled to build on the methods of operation they create; anyone can. Thus competitors may build on the method of operation that *Lotus* designed and may use the *Lotus* menu command in doing so."[94]

The Eleventh Circuit also endorsed the concept of reverse engineering as a fair use in *Bateman v. Mnemonics, Inc.*[95] In a footnote, the court adopted the position in *Sega v. Accolade,* recognizing that reverse engineering may be a fair use.[96] The court found the *Sega* opinion persuasive in view of the principal purpose of copyright–to promote the advancement of science and the arts.[97]

Continuing this trend, *Sony Computer Entertainment, Inc., v. Connectix Corp.* recognized reverse engineering as a fair use defense to copyright infringement.[98] In *Sony* the Ninth Circuit found that intermediate copies made and used by the alleged infringer during the course of reverse engineering were protected by the fair use doctrine.[99] *Sony* discussed several methods of gaining access to the functional elements of a software program

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[91] *Id.* at 1527.

[92] 49 F.3d 807, 818 (1st Cir. 1995). In *Lotus*, the holder of the copyrighted "Lotus 1-2-3" shreadsheet program and menu trees filed a copyright infringement action against a competitor. Lotus 1-2-3 is a spreadsheet program that enables users to perform accounting functions electronically on a computer. A competitor released a similar program, which included "a virtually identical copy of the entire Lotus 1-2-3 menu tree." In doing so, the competitor did not copy any of Lotus' computer code; it copied only the words and structure of Lotus' menu command hierarchy. It included the menu command to make it compatible with Lotus 1-2-3 so that spreadsheet users already familiar with Lotus 1-2-3 would be able to switch without having to learn new commands or rewrite their Lotus macros.

[93] *Id.* at 815. The court found menu commands distinguishable from underlying computer code because "while code is necessary for the program to run, its precise formulation is not". *Id* at 816.

[94] *Id.* at 818.

[95] 79 F.3d 1532 (11th Cir. 1996).

[96] *See supra* note 18.

[97] *Id.* (quoting Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349 (1991) for the proposition that that the purpose of the copyright clause (U.S. Const. Art. I, § 8, cl. 8) is not to reward the labor of authors, but [t]o promote the Progress of Science and useful Arts").) (quoting

[98] 203 F.3d 596 (2000).

[99] *Id.* at 596, 602. Such intermediate copies were necessary to permit *Connectix* to make its non-infringing *Virtual Game Station* function with *Sony PlayStation* games.

by reverse engineering. Such methods include: reading about the program; observing the program in operation by using it on a computer; performing a static examination of the individual computer instructions contained within the program; and performing a dynamic examination of the individual computer instructions as the program is being run on the computer.[100] The court held that intermediate copying could constitute copyright infringement even when the end product did not itself contain copyrighted material.[101] However, the court nonetheless protected the copying in *Sony* as a fair use because it was necessary to gain access to the functional elements of the software.[102] Furthermore, the fact that the defendant copied and used the ideas or functional elements to design its own program was immaterial.[103] In any event, the defendant's competing program was a wholly new product notwithstanding the fact that its uses and functions were substantially similar to the *Sony PlayStation*.[104]

Additionally, the Fifth Circuit in *Alcatel U.S.A., Inc. v. DGI Techs. Inc.*, held that a contractual restriction on reverse engineering constituted copyright misuse.[105] The court held that the copyright holder had used its copyrights to indirectly gain commercial control over products that were not copyrighted, namely, its microprocessor cards.[106] Furthermore, the court noted that any competing microprocessor card must be compatible with the copyright holder's copyrighted operating system software.[107] Thus, to ensure compatibility, a competitor would have to test the card.[108] The test necessarily involved making a copy of the copyrighted operating system.[109] "If the [copyright holder] is allowed to prevent such copying," the court stated, "then it can prevent anyone from developing a competing

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100 *Id.* at 599 (quoting Andrew Johnson-Laird, *Software Reverse Engineering in the Real World*, 19 U. Dayton L. Rev. 843, 846 (1994)).

101 *Sony*, 203 F.3d at 602-03 (citing Sega Enterprises, Ltd. V. Accolade, Inc., 977 U.S. at 1518-19).

102 *Id.* at 603 (citing Sega Enterprises, Ltd., v. Accolade, Inc., 977 at 1518,1524).

103 *Sony*, 203 F.3d at 603 (citing *Sega*, 977 U.S. at 1524 and 17 U.S.C. § 102(b)).

104 *Sony*, 203 F.3d at 606.

105 The copyright misuse doctrine forbids the use of a copyright to secure an exclusive right or limited monopoly not granted by the Copyright Office and which it is contrary to public policy to grant. The doctrine bars a culpable plaintiff from prevailing on an action for the infringement of the misused copyright. 166 F.3d 772, 793 (5th Cir. 1999) (citing Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 972 (4th Cir. 1990) ("copyright law seek[s] to increase the store of human knowledge and arts by rewarding ...authors with the exclusive rights to their works for a limited time .... The granted monopoly power does not extend to property not covered by the ...copyright"). *See also* DSC Communications Corp. v. DGI Techs., 81 F.3d 597 (5th Cir. 1996).

106 166 F.3d at 793.

107 *Id.*

108 *Id.*

109 *Id.*

microprocessor card, even though it has not patented the card."[110] Thus, the copyright holder in *Alcatel* attempted to use a contractual restriction to circumvent the federal patent system. Although *Bowers* patented the software at issue in *Bowers v. Baystate*, the policy behind using contractual restrictions to circumvent the federal intellectual property laws is equally applicable.[111]

The dissenting Judge in *Bowers* stated that the preemption clause of the Copyright Act covers "any such right or equivalent right in any such work under the common law or statutes of any State."[112] The majority in *Bowers* cites *ProCD, Inc. v. Zeidenberg,* the only other court of appeals shrinkwrap case, as support for its findings. While the Seventh Circuit in *ProCD* stated that "a simple two-party contract is not 'equivalent to any of the exclusive rights within the general scope of copyright'", its broad language does not prohibit preemption in all circumstances.[113] *ProCD* involved a shrinkwrap license that restricted the use of a CD-ROM to non-commercial purposes.[114] The defendant violated the license by charging users a fee to access the CD-ROM over the Internet.[115] The court held that whether a particular license is generous or restrictive, a simple two-party contract is not "equivalent to any of the exclusive rights within the general scope of copyright" and is, therefore, not preempted by federal Copyright law.[116] However, *ProCD* offered the software and data for two prices: one at a lower cost for personal use and one at a higher price for commercial use.[117] The shrinkwrap license merely prohibited use of the lower priced software for commercial use. The court found that the defendant wanted to use the lower priced software for commercial use without paying the seller's higher price.[118] As the dissenting Judge in *Bowers* correctly pointed out, the Seventh Circuit in *ProCD* also emphasized that the license "would not withdraw any information from the public domain" because all of the information on the CD-ROM was

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110 *Id.* at 793-94.

111 Furthermore, the District Court in *Bowers* found that no jury could find that *Baystate* infringed *Bowers'* patent.

112 *Bowers*, 320 F.3d at 1337 (*Dyk, Cir. J., concurring in part, dissenting in part).*

113 ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1455 (7th Cir. 1996). "We think it prudent to refrain from adopting a rule that anything with the label 'contract' is necessarily outside the preemption clause." *See also* Maureen O'Rourke, *Copyright Preemption After the ProCD Case: A Market Based Approach*, 12 Berkeley Tech L. J. 53 (1997).

114 ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996).

115 *Id.* at 1450.

116 *Id.* at 1455.

117 *Id.* at 1454.

118 *Id.*

publicly available.[119] Thus, the important distinction between *ProCD* and *Bowers* is that the shrinkwrap license in Bowers is more than just a simple two-party contract, it is an attempt to prohibit the right of fair use granted to the general public under the federal Copyright law.[120]

Congress also acknowledged the importance of software reverse engineering when they enacted the Digital Millennium Copyright Act in 1998, which permits the circumvention of technological protections for the purpose of engaging in reverse engineering.[121] Recently, the National Conference of Commissioners on Uniform State Laws amended the Uniform Computer Information Transactions Act (UCITA) to prohibit the enforcement of contractual restrictions on reverse engineering for interoperability.[122]

Furthermore, foreign nations also recognize the importance of software reverse engineering. The 1991 European Union Software Directive, enacted throughout Europe, contains a specific exception for reverse engineering.[123] The directive provides that decompilation is often necessary to access the 'ideas and principles' which Article 1(2) excludes from protection and Article 5(3) allows a legitimate user to ascertain.[124] Contractual provisions contrary to this exception are invalid.[125] Other nations, including Japan, Korea, Hong Kong, Singapore, Philippines and Australia also enacted such legislation further recognizing the importance of reverse engineering.[126]

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[119] *Id.* at 1455.

[120] *See Bowers*, 320 F.3d at 1338 (*Dyk, Cir. J., concurring in part, dissenting in part).* "The case before us is different from ProCD. The Copyright Act does not confer a right to pay the same amount for commercial and personal use. It does, however, confer a right to fair use, 17 U.S.C. § 107, which we have held encompasses reverse engineering."

[121] Lemley, *supra,* note 38, at 7 (citing 17 U.S.C. § 1201(f) (2000) and S. Rep. No. 105-190 (1998), at 13.

[122] Uniform Law Commissioners, *Amendments to UCITA Approved: Reverse Engineering for Interoperability Expressly Authorized*, Aug. 5, 2002, *available at*, http://www.nccusl.org/nccusl/pressreleases/pr080502ucita.usp. "An information contract may not prohibit reverse engineering that is done for the purposes of making an information product work together with other information products." *See also* Lemley, *supra* note 38.

[123] Directive 91/250/EEC on the Legal Protection of Software Programs 1991 O.J. (No. L. 122) 42, 45.

[124] *Id.* at 45. "Article 6(1) allows a party entitled to use a program to decompile it "to obtain the information necessary to achieve the interoperability of an independently created computer program with other programs" under three conditions. The decompilation must be done (a) by "the licensee or by another person having a right to use a copy of the program" or the agent of either. It is permissible (b) to obtain only "information necessary to achieve interoperability [that] has not previously been readily available" to these persons. And it must be (c) "confined to the parts of the original program which are necessary to achieve interoperability."

[125] *Id.* at 43.

[126] Japan allows the owner of an authorized copy of a computer program to reproduce or modify

In particular, the Polish Copyright Act provides the copyright owner with the exclusive right to exploit the protected work for profit or professional purposes.[127] An independent creation of the same work constitutes a complete defense to liability. Reproduction for personal use, analysis, research, or education is also exempted from liability. Furthermore, the legislation expressly allows reverse engineering, provided that any resulting product meets the criteria of protection for a new work.

IV.

The Federal Circuit's decision in *Bowers* is not consistent with the Supremacy Clause of the U.S. Constitution and fails to recognize the fair use doctrine. Using the proper analysis, this section will analyze the issue of preemption applicable to the facts presented in *Bowers* and discuss why a uniform decision in this arena is required to promote the progress of science and art.

Under the facts presented in *Bowers v. Baystate Technologies*, *Baystate* contends that the federal copyright law preempts the prohibition of reverse engineering embodied in *Bowers'* shrink-wrap license agreements.[128] While courts should continue to respect the freedom of contract and should not lightly set aside freely-entered agreements, federal regulation may, at times, preempt private contract.[129] Although courts tend to respect the freedom of contract and do not lightly set aside such agreements,[130] the standard should be different where the agreement has not been freely-entered into such as the case with most mass marketed software containing shrink-wrap licenses. Shrink-wrap license agreements[131] often prevent mutual assent as compared to a general contract entered into between two parties.[132]

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the program when necessary for interoperability. *2-JAP International Copyright Law and Practice* § 8 [2][c][v](1) (Matthew Bender & Co.) 2002. (Japan); The Copyright Act (CA) and the Computer Program Protection Act (CPPA) were amended in 2000 in order to answer the need for greater efficiency in the use and protection of works in rapidly developing technological environments. CA. No. 6134; CPPA No. 6233 (Korea). *See* Ord. No. 92 of 1997 (Hong Kong); Copyright (Amendment) Bill of 1998 (Singapore); Republic Act 8293 of 1996 (Phillipines); Copyright Amendment (Computer Programs) Bill of 1999 (Australia). *See also* Lemley, *supra* note 37.

127 §§ 211, 212 Industrial Property Act of 2000 (Poland).

128 Bowers v. Baystate Technologies, Inc., 320 F.3d 1317, 1323 (Fed. Cir. 2003).

129 *Id.* (citing Beacon Hill Civic Ass'n v. Ristorante Toscano, 662 N.E.2d 1015, 1017 (Mass. 1996); *Cf.* Nebbia v. New York, 291 U.S. 502, 523 (1934)).

130 320 F.3d at 1323 (citing *Beacon Hill Civic Ass'n*, 662 N.E.2d 1015, 1017 (Mass. 1996)).

131 Shrink-wrap agreements are agreements either printed on the back of or included inside a box containing commercial computer software. Often shrink-wrap licensing agreements contain software use directives. *See* Doug Isenberg, The Gigalaw Guide to Internet Law 288 (Random House 2002).

132 Shrink-wrap license agreements may include a broad array of limitations favorable to software

The shrink-wrap license in *Bowers* prohibits any reverse engineering of the software. Reverse engineering is a judicially recognized fair use permitted under § 107 of the Copyright Act.[133] Courts may interpret § 107 of the Copyright Act to either grant a right of fair use or provide a defense to copyright infringement. Traditionally courts treated fair use as an affirmative defense to a charge of copyright infringement.[134] Thus, any attempt to restrict or limit the application of the fair use doctrine would be an interference with the Copyright Act. The Circuit Judge writing for the Eleventh Circuit in *Bateman v. Mnemonics, Inc.*, argued that fair use is better viewed as a right granted by the Copyright Act.[135] Thus, under § 301 of the Copyright Act, any state claim attempting to grant or restrict that right would be expressly preempted. This would include a blanket contractual restriction of fair use. In addition, contractual restrictions on fair use rights may also be preempted under the doctrine of conflict preemption. Therefore, the correct analysis when enforcing a contract attempting to prohibit or restrict the right of fair use, requires scrutiny under both the express and conflict doctrines of preemption.

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companies, including prohibitions against copying, reverse engineering, transferring, debugging, and public display. License agreements are often inside the shrink-wrapped plastic or cellophane that seals the box containing the software. This allows the software companies to argue that purchasers of such software agree to abide by the terms of the agreement by simply tearing away the plastic or cellophane wrapping. *See* Mark A. Lemley, *Intellectual Property and Shrinkwrap Licenses*, 68 S. CAL. L. REV. 1239, 1246-47 1995. *Cf.* Final Report of the National Commission on New Technological Uses of Copyrighted Works (U.S. Gov't Printing Office) 1978. Consumer advocates, however, believe that consumers should not be obligated to abide by the terms of an agreement they might never read, particularly if the agreement is inside the box and, therefore, not visible until after the purchase is made and the box is opened. *See, e.g.*, Stephen J. Davison, et al., *Open, Click, Download, Send: What Have You Agreed To? The Possibilities Seem Endless*, 717 PLI/Pat 71, 85 (2002) (citing Vault v. Quaid Software, Ltd., 847 F.2d 255 (1988) (holding that a shrink-wrap license was an enforceable adhesion contract and the state statute authorizing such contracts was preempted by federal copyright law); and Step-Saver Data Systems v. Wyse Tech. and Software Link, Inc., 939 F.2d 91 (3d Cir. 1991) (holding that license agreement was not part of the contract between the parties where they orally agreed to the sale over the phone without mention of the shrink-wrap license agreement and as such, opening of the package was insufficient to establish expressed assent to modify the contract under UCC 2-209)).

[133] *See* 17 U.S.C. § 1201(f) (2002). *See also* Atari Games Corp. v. Nintendo, 975 F.2d 832, 843-845 (Fed. Cir. 1992); Sony Computer Ent. Corp. v. Connectix Corp., 203 F.3d 596 (9th Cir. 2000); Sega Enter. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1527-28 (9th Cir. 1992); Bateman v. Mnemonics, Inc., 79 F.3d 1532 (11th Cir. 1996); *see also* Lemley, *supra* note 38, at 6.

[134] Bateman v. Mnemonics, Inc., 79 F.3d 1532, FN22 (11th Cir. 1996) (quoting Campbell v. Acuff-Rose Music, Inc., 114 S.Ct. 1164, 1177 (1993) ("[F]air use is an affirmative defense . . .").

[135] *Bateman*, 79 F.3d at FN22. "Originally, as a judicial doctrine without any statutory basis, fair use was an infringement that was excused—this is presumably why it was treated as a defense. As a statutory doctrine, however, fair use is not an infringement. Thus, since the passage of the 1976 Act, fair use should no longer be considered an infringement to be excused; instead, it is logical to view fair use as a right." *Id.*

Congress enacted § 301 of the Copyright Act expressly preempting state laws attempting to govern rights equivalent to any of the exclusive rights within the general scope of copyright.[136] Section 301 preempts and abolishes any rights governed by the common law or statutes of a state that are equivalent to copyright and that extend to works coming within the scope of federal copyright law.[137] To determine whether a contract is preempted under § 301, there are two general inquiries: (1) whether the rights embodied in the contract fall within the subject matter of copyright and (2) whether the rights at issue are equivalent to the exclusive rights granted under the Copyright Act. A contractual restriction on the right to reverse engineer is a contract restriction on the right to fair use. There is no question that § 107, permitting the right to fair use, falls within the subject matter of copyright. The question of whether or not a contractual restriction is equivalent to the rights granted under the Copyright Act, however, requires a more intricate discussion.

The Federal Circuit majority determined that the contract claim was not equivalent to any of the rights granted under the Copyright Act after applying the "extra elements" test adopted by the First Circuit.[138] The Federal Circuit relies on the analyses set forth in *Data General* and *ProCD*.[139] Both *ProCD* and *Data General* attempt to resolve the question using the "extra elements" test for express preemption. The "extra element" test provides that if the act or acts of the competitor would violate both state law and federal copyright law, the state right is deemed equivalent to copyright and is, therefore, preempted.[140] If, however, one or more qualitatively different elements are required to constitute the state-created cause of action being asserted, then the right granted under state law does not lie "within the general scope of copyright," and preemption does not occur.[141]

In *Bowers*, the Federal Circuit argues that the extra elements required in a misappropriation of trade secret claim, e.g., proof of a trade secret and breach of a duty of confidentiality, are analogous to the elements of mutual

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136 17 U.S.C. § 301(a) (2001).

137 Crow v. Wainwright, 720 F.2d 1224 (1983).

138 320 F.3d at 1324 (citing Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d 1147, 1164 (1st Cir. 1994) (quoting Gates Rubber Co. v. Bando Chem. Indus., 9 F.3d 823, 847 (10th Cir. 1993) ("But if an 'extra element' is 'required instead of or in addition to the acts of reproduction, performance, distribution or display, in order to constitute a state-created cause of action, then the right does not lie "within the general scope of copyright," and there is no preemption.'") (quoting 1 Nimmer on Copyright § 1.01[B] at 1-15)); *See also* Computer Assoc. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 716 (2d Cir. 1992)

139 Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d 1147 (1st Cir. 1994); ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996).

140 Alcatel USA, Inv. v. DGI Technologies, Inc., 166 F.3d 772, 787 (5th Cir. 1999).

141 *Id.*

assent and consideration required in a contract claim.[142] This analogy, however, would allow state breach of contract claims to escape preemption in any situation where federal copyright law may conflict merely because contractual rights are involved. Unlike the trade secret claim in *Data General*, a breach of contract claim is unique in that it may attempt to govern rights protected under federal copyright law. For example, if the shrink-wrap license in *ProCD* attempted to forbid users from exercising their rights to fair use with respect to copyrighted material, it would be in direct conflict with § 107 of the Copyright Act and should be expressly preempted. In contrast to trade secret law, a contract can attempt to protect the same rights protected under the Copyright Act.

In *ProCD*, the Seventh Circuit applied the "extra elements" test for express preemption, finding that the mutual assent and consideration required by the contract claim rendered that claim qualitatively different from a copyright infringement claim.[143] However, the analysis in *ProCD* is contrary to federal copyright policy and should not be persuasive in determining the outcome in *Bowers*.[144] If *Bowers* and *ProCD* are correct, contract claims can never be preempted by federal law because all contract claims require a finding of mutual assent and consideration. Thus, under the Federal Circuit's reasoning, such elements would always satisfy the extra elements test and all contract claims would be different from copyright claims and escape preemption notwithstanding explicit constitutional and legislative language proscribing otherwise. The argument that contract claims are inherently different from federal copyright claims presents a number of problems.[145] First, the reference to whether or not the contract claim is equivalent to any of the rights protected under copyright law leads only to an analysis of preemption under section 301, thus, ignoring the doctrine of conflicts preemption.[146] Second, the line between private

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[142] *Bowers*, 320 F.3d at 1324 (citing *Data General*, 36 F.3d at 1165, holding that the Copyright Act does not preempt a state law misappropriation of trade secret claim because in addition to copying, the state claim required proof of a trade secret and breach of a duty of confidentiality; and *ProCD*, 86 F.3d at 1454, holding that mutual assent and consideration required by a contract claim rendered that claim qualitatively different from a copyright infringement claim).

[143] *ProCD*, 86 F.3d at 1454.

[144] *See* Mark A. Lemley, *Beyond Preemption: The Law and Policy of Intellectual Property Licensing*, 87 CALIF. L. REV. 111 (1999); Maureen O'Rourke, *Copyright Preemption After the ProCD Case: A Market Based Approach*, 12 BERKELEY TECH. L. J. 53, 76 (1997) ("The court did not attempt to answer the policy question of how the use restriction could be consistent with the copyright policy of maintaining a viable public domain."); and Brett L. Tolman, *ProCD, Inc. v. Zeidenberg: The End Does Not Justify the Means In Federal Copyright Analysis*, 1998 BYU L. REV. 303 (1998).

[145] Lemley, *supra* note 144 at 147.

[146] *Id.* "Even if contract and copyright law are not equivalent, it simply does not follow that

contracts and public legislation is further diminished.[147] In other words, enforcing contract terms that restrict copyrights afforded to the general public by the federal Copyright Act blurs the line of distinction and importance between federal copyright legislation and private contractual agreements.[148] Furthermore, *ProCD* gives copyright owners monopolistic control of their respective copyrights, notwithstanding the limitations on such rights embodied in the federal copyright law.[149]

In *Crow v. Wainwright* the Eleventh Circuit held that merely characterizing legally recognizable rights as contractual rights does not permit the conflicting state law to escape preemption.[150] In *Crow,* the State of Florida convicted Crow for selling bootleg eight-track tapes in violation of a Florida statute. On appeal Crow argued that the state conviction should be null and void because the Copyright Act preempted the Florida regulation.[151] The State attempted to argue that there was no express preemption under the second prong because the stolen property rights were contractual rights.[152] Rejecting the State's argument, the court held that the Florida statute was different from the copyright act only in that it required an establishment of scienter, on the part of the defendant. Furthermore, the court noted that this distinction alone did not render the elements of the crime different in any meaningfully way. "The additional element of scienter traditionally necessary to establish a criminal case merely narrows the applicability of the statute. The prohibited act – wrongfully distributing a copyrighted work – remains the same."[153]

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federal law places no limits on the enforceability of contracts. Courts that take this position should also be troubled by the significant number of cases that do apply intellectual property rules to preempt contracts."

147 *Id.*

148 *Id.*

149 *See* Niva Elkin-Koren, *Copyright Policy and the Limits of Freedom of Contract,* 12 Berkeley Tech. L. J. 93, 109-10 (1997)("If copyright owners are free to use contractual agreements to restrict use, and are then able to use copyright to prevent any use that is not subject to these restrictions, owners are gaining absolute monopoly over their works...When owners exercise absolute monopoly, users' choices become very limited...[V]aluable uses...may not occur under a contractual regime...[T]he low standard of assent that *ProCD*...held to be sufficient for contract formation does not promote competition over the terms.")

150 720 F.2d 1224 (11th Cir. 1983).

151 *Id.* at 1225.

152 *Id.* at 1226. "These rights, argued the state, belong to various performers, not under federal copyright law but under various private contracts."

153 *Id.* (citing *Harper & Row*, 501 F.Supp. at 853-54 "additional elements of 'knowledge' and 'intent' required under state law do not afford...rights ... 'different in kind' from those protected by the copyright law").

Similarly, the elements of mutual assent and consideration are not the meaningful elements of a breach of contract claim. The elements of mutual assent and consideration are only relevant in determining whether the contract is enforceable and do not change the substantive meaning of a contract. When applicable to a breach of contract claim, the second prong of the extra elements test should turn on the conduct or act constituting the breach. In *Bowers*, the shrink-wrap agreement seeks to prohibit reverse engineering, a judicially recognized fair use under § 107 of the Copyright Act. The additional elements of mutual asset and consideration traditionally necessary to establish an enforceable contract merely narrow the applicability of the state contract law. Thus, the prohibited act – wrongfully engaging in reverse engineering – remains the same. In other words, the prohibited act, nevertheless, touches upon federal copyright law. As such, a contractual restriction on the right to reverse engineer should be expressly preempted under § 301 of the Copyright Act.

Additionally, the Federal Circuit in *Bowers* attempts to support its analysis with the First Circuit's reasoning in *Data General*. In *Data General,* the First Circuit found that the Copyright Act does not preempt a state law misappropriation of trade secret claim because in addition to copying, the state claim required proof of a trade secret and breach of a duty of confidentiality.[154] Trade secret laws, however, protect rights in formulas, processes, devices, or other business information that is kept confidential to maintain an advantage over competitors.[155] Furthermore, the concept of protecting trade secrets resembles more closely the principles of trademark and patent law.[156] The court in *Data General* concluded that because of the required proof of a trade secret and the breach of a duty of confidentiality, the purpose behind protection under the state trade secret law is wholly separate from the purposes for protection under the Copyright Act.[157] Thus, federal copyright law did not preempt the state claim.

By contrast, the Fifth Circuit held in *Alcatel USA, Inc. v. DGI Technologies, Inc.*, that federal copyright law did in fact preempt a state misappropriation of trade secret claim.[158] The court noted that despite the seemingly divergent purposes of federal copyright law and state misappropriation law, the rights protected under these laws were equivalent.[159] In particular, the acts that formed the basis of the state

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154 *Data General*, 36 F.3d at 1165.

155 Black's Law Dictionary 1501 (7th ed. 1999).

156 *Id.* (citing Mark A. Rothstein, et al., *Employment Law* § 8.18, at 516 (1994)).

157 36 F.3d at 1165.

158 166 F.3d at 772.

159 *Id.* at 789. "In contrast to federal copyright law, which focuses on the value of creativity, state

misappropriation claim were equivalent to the interests protected by the Copyright Act, including (1) reproduction; (2) use of the protected materials in the preparation of allegedly derivative works; and (3) distribution of such works in competition with the copyright holder.[160] Adopting a view similar to the holding in *Crow v. Wainwright*, the Fifth Circuit concluded that the state claim required an element "different in kind" to escape federal preemption.[161]

Even if, however, the rights governed under the contractual restriction in *Bowers* are "different in kind" from rights governed by the Copyright Act and are not, therefore, expressly preempted, the issue of preemption still remains. . The contract claim may, nonetheless, be invalid under the doctrine of implied conflict preemption. A state contract attempting to prohibit or restrict the right of fair use, granted to the general public under the federal Copyright law, clearly stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress. Thus, the contractual restriction in *Bowers* must be preempted.[162] In order to preempt a state contract claim under the conflicting laws doctrine, the first question is whether the contract alters federal law.[163] If there is an affirmative answer to the first question, the second question becomes whether the federal law permits itself to be altered or is it merely a default rule.[164] If a contract attempts to alter federal law, and federal law does not permit such alteration, states cannot enforce the contract.[165] When contract claims involve copyright disputes, preemption becomes a factor where the contract attempts to change the rules as provided in the Copyright Act of 1976.[166] For example, users and/or licensees cannot force copyright owners to give up their right to bring an action for copyright infringement within the statutory three-year period provided in the Copyright Act.[167]

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misappropriation law is specifically designed to protect the labor that goes into creating the work." The elements of proof required under the state statute included "(i) the creation by plaintiff of a product through extensive time, labor, skill and money; (ii) the use of that product by defendant in competition with plaintiff, thereby giving the defendant a special competitive advantage because he was burdened with little or none of the expense incurred by plaintiff in the creation of the product; and (iii) commercial damage to plaintiff."

160 *Id.* at 790.

161 *Id.*

162 *See* California Fed. Sav. & Loan Ass'n v. Guerra, 479 U.S. 272, 281 (1987). *See also* Lemley, *supra* note 38.

163 Mark Lemley, cni-copyright: *Re: Federal preemption of contracts* Wed, 08 Nov 1995, *at* http://www.cni-copyright.org.

164 *Id.*

165 *Id.*

166 *Id.*

167 *See* ASCAP v. Pataki, 1997 WL 438849 (S.D.N.Y.).

Similarly, copyright owners cannot force users and/or licensees to give up their right to fair use. Section 107 of the Copyright Act explicitly provides that "the fair use of a copyrighted work, including such use by reproduction..., for purposes such as criticism, comment, scholarship or research, is not an infringement of copyright."[168] Section 107 also provides four factors to consider in determining whether an alleged infringer's use is fair within the meaning of the statute.[169] Reverse engineering is a fair use often used for criticism, comment, scholarship or research.[170] Thus, a blanket prohibition on reverse engineering restricts the right to fair use. Thus, the contractual restriction in *Bowers* purports to alter federal law and should be preempted.

Conflict preemption may not apply, however, in circumstances where enforcement of a contract does not conflict with copyright policy.[171] For example, if the conduct at issue in the contract claim also infringed copyright, it would not conflict with copyright policy.[172] This is exactly how the District Court in *Bowers* resolved the contract claim. The District Court instructed the jury that "reverse engineering violates the license agreement only if *Baystate's* product that resulted from reverse engineering infringes *Bowers'* copyright because it copies protectable expression."[173] Analyzed this way, a court could reach the outcome by simply concluding that the defendant engaged in copyright infringement.[174] However, if there is no copyright infringement, holding a defendant liable for the same remedies disguised in a breach of contract claim is contrary to the policy behind the fair use doctrine and the doctrine of conflict preemption would be implicated.[175] Thus, the Federal Circuit did not have to make an end run around copyright by resorting to state law.[176] If courts could reach the same liability outcome, it should not matter whether it was obtained through

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168 17 U.S.C. § 107 (2001).

169 However, such a determination is not relevant to the issue of preemption. Once we determine whether there is preemption, § 107 allows us to determine whether the use was fair. ["In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.] 17 U.S.C. § 107(1)-(4) (2001).

170 Johnson-Laird, 19 U. DAYTON L. REV. at 843.

171 *See* Lemley, *supra* note 37.

172 *Id.*

173 320 F.3d at 1323.

174 *Id.* at 1326.

175 *Id.*

176 Tolman, 1998 BYU .L. REV. at 318.

federal copyright law or state contract law. The only difference is that analyzing the problem under copyright law allows for a rule consistent with the Supremacy Clause because it recognizes the rights afforded under the federal copyright system.

In *Bowers*, the alleged infringer reverse engineered protected software. It is unclear from the facts presented what aspects of the software *Baystate* actually copied. Computer programs, however, consist of underlying functional processes as well as creative expression.[177] Copyright protection extends only to creative expression, not ideas or functional processes.[178] If *Baystate* engaged in reverse engineering to copy the program's underlying functional processes, *Bowers* would not have a claim for *copyright* infringement. On the other hand, *Bowers* would have a valid claim for infringement if *Baystate* copied aspects of the program's creative expression and such copies were to fall outside the scope of the fair use doctrine. Whether or not the doctrine of conflict preemption actually applies to the situation in *Bowers v. Baystate Technologies*, the Federal Circuit's blanket rule that contractual restrictions on reverse engineering can never be preempted is contrary to the Supremacy Clause and the Intellectual Property Clause embedded in the U.S. Constitution, as well as, the federal copyright system set forth in the Copyright Act of 1976.

The Federal Circuit's analysis in Bowers is simply a blanket rule that federal copyright law can never preempt state contract claims. This blanket rule is contrary to the Supremacy Clause and the federal Copyright Act. It is widely accepted that, at times, federal law may preempt state contract claims. Thus, the outcome should not be different just because we are dealing with copyright law. The Federal Circuit's conclusion, therefore, is inconsistent with Congress' intent in enacting the federal intellectual property laws. This area of the law remains heavily debated and *Bowers* is an example of why a uniform standard consistent with the Supremacy Clause is necessary.

CONCLUSION

By holding that federal copyright law does not preempt state contract claims regardless of whether or not the contract at issue attempts to expand or limit the rights granted to copyright holders under the Copyright Act, the Federal Circuit majority has directly undermined the Supremacy Clause of the U.S. Constitution. The Federal Circuit's analysis of preemption is

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177 Atari Games Corp. v. Nintendo Am. Inc., 975 F.2d 832 (Fed. Cir. 1992).

178 17 U.S.C. 102(b) (2001).

incomplete as it fails to discuss the applicability of implied conflict preemption. Furthermore, the majority's analysis of express preemption is misguided. A broad interpretation of the Court's ruling – that § 301 of the Copyright Act does not expressly preempt state contract claims because contact claims contain extra elements rendering it qualitatively different from a claim for infringement – leads to illogical results.

The majority's conclusion fails to recognize the fair use doctrine in § 107 of the Copyright Act. Congress explicitly intended for certain fair uses, such as scholarship and research, to escape infringement. As courts have continually recognized reverse engineering as a fair use of protected software, prohibiting such an act limits the right to fair use. More broadly, however, the majority's conclusion creates a rule that will allow private parties to opt-out of the federal copyright system as a whole. This rule could allow publishers to use shrink-wrap licenses to force users to waive all rights under the Copyright Act by simply tearing open a package.[179] A scholar could lose his fair use privilege to quote a novel.[180] Similarly, a library could lose its ability to lend books, and its ability to make archival copies.[181] Recording companies could include a restriction inside CD shrink-wrap packaging that forbids valid purchasers from making back-up copies of their music. Restrictions such as these would be valid under *Bowers* even though they would be direct attempts to expand the rights granted to copyright owners under the Copyright Act. In essence, therefore, the Federal Circuit's ruling is contrary to the purpose of copyright law – "to promote the Progress of Science and useful Arts."

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[179] Lemley, *supra* note 38.

[180] *Id.* (citing Wright v. Warner Books, Inc., 953 F.2d 731, 741 (2d Cir. 1991)).

[181] *Id.* Lending books is permitted under the first sale doctrine. Making archival or preservation copies is permitted under § 108 of the Copyright Act.