

CASENOTE

The "Soft" Existing Legal Protection of Software and the Preemption of State Shrink-Wrap License Enforcement Acts

I. INTRODUCTION

The computer software¹ development and manufacturing industry has grown to serve a major market in recent times.² The developers and manufacturers of this software have sought to protect their extensive investments in development through legal means such as patent, copyright and trade secret laws.³ Although these laws do offer some protection of the developers' proprietary interest in the software, the software industry perceives these protective devices as inadequate to protect their software from unauthorized copying.⁴ Software de-

1. The Copyright Act defines a computer program as a set of instructions used in a computer to bring about a certain result. 17 U.S.C. section 101 (1982). In the computer industry the term computer program is synonymous with computer software. *Data Cash Sys., Inc. v. JS & A Group, Inc.*, 480 F. Supp. 1063, 1065 (N.D. Ill. 1979) *aff'd*, 628 F.2d 1038 (1980). Hardware consists of the actual computer, while the software is the programming that runs this hardware. *See Triangle Underwriters, Inc. v. Honeywell, Inc.*, 604 F.2d 737, 739 (2d Cir. 1979). *See also* 1 D. BENDER, *COMPUTER LAW* (1987) (explaining the sources and functions of software and hardware) [hereinafter BENDER].

2. In 1984 worldwide software sales amounted to \$25.3 billion, of which 51% was marketed in the United States. The U.S. was responsible for developing 70% of the worldwide software total. In 1987 worldwide software sales were estimated at \$93 billion, of which 47% was marketed in the U.S. The U.S. developed 74% of the world total. J. McPhee, *Computer Industry Trends, 1987 COMP. L. UPDATE* (Comp. L. Ass'n 1987) (presenting figures reported by the U.S. Department of Commerce Office of Computers and Business Equipment).

3. 1 BENDER, *supra* note 1, § 3.01.

4. J. SOMA, *COMPUTER TECHNOLOGY AND THE LAW* 24 (1983) (traditional means of protecting software are inadequate); Davidson, "Box-Top" Software Licenses, 41 *BENCH & BAR OF MINNESOTA* 9, 9 (March 1984) (software publishers' interests are not adequately protected by existing bodies of law). The legal system has not kept pace with technological developments in software. *See* J. SOMA, *supra*, at 21 (explaining the need to adapt traditional law to computer technology).

velopers have thus turned to extra-intellectual-property means⁵ to protect their investments in the software such as the use of technology to prevent the copying of software as well as the use of shrink wrap license agreements⁶ which impose promises on the software purchasers not to copy the program. The effectiveness of technology alone to prevent copying is limited.⁷ The use of shrink-wrap licenses on mass-marketed software⁸ appears to be the final hope for the protection of the developers' interests. Two states sought to protect the software developers' interests further by enacting statutes that gave enforcement and legitimization to these shrink-wrap license agreements.⁹ The first case to bring into question the enforceability of state software license enforcement acts (SLEA)¹⁰ was *Vault Corporation v. Quaid Software Limited*.¹¹ In that case, a federal court in Louisiana held both the shrink-wrap license agreement unenforceable as a contract of adhesion¹² and the Louisiana SLEA¹³ unenforceable as preempted by federal copyright law.¹⁴ Thus, in its initial test in the courts, a means of proprietary protection of vast potential was eliminated and the soft-

5. See 1 BENDER, *supra* note 1, § 3.01 (extralegal means of protection including the use of technology to impede copying and the offering of commercial incentives to enhance the value of taking a license may be used alone or in conjunction with legal means). The term "extra-intellectual-property" will be used in this note instead of the term "extra-legal" used by Bender. The terms are intended to be defined as any means of preventing the unauthorized copying of software other than patent, copyright or trade secret law.

6. The term is also referred to as "tear open", "box top" or "blister" contracts. A shrink-wrap contract is one in which the terms are displayed beneath the cellophane wrapper, or shrink-wrap of a container, such terms deemed accepted when the vendee opens the package. See 1 BENDER, *supra* note 1, § 4A.02(4).

7. The extent of software piracy evidences the failure of technology to impede copying. See *supra* note 4.

8. Shrink-wrap license agreements are not employed when custom-developed software is sold because of the ability and opportunity to actually negotiate a license agreement.

9. See LA. REV. STAT. ANN. §§ 51:1961-66 (West 1987); ILL. REV. STAT. ch. 29, para. 801-08 (1986).

10. 1 BENDER, *supra* note 1, § 4A.02(4) n.1.

11. 655 F. Supp. 750 (E.D. La. 1987).

12. *Vault v. Quaid*, 655 F. Supp. 750, 761 (E.D. La. 1987). The Louisiana Supreme Court defined an adhesion contract as "a standard contract . . . prepared by a party of superior bargaining power for adherence or rejection of the weaker party . . . which will sometimes raise a question as to whether or not the weaker party actually consented to the terms." *Golz v. Children's Bureau of New Orleans, Inc.* 326 So.2d 865, 869 (La. 1976).

13. LA. REV. STAT. ANN. §§ 51:1961-66 (West 1987).

14. *Vault*, 655 F. Supp. at 763.

ware industry can now only rely upon the inadequate intellectual property means of protection.

This casenote will first present an overview of the traditional intellectual property means of protecting proprietary interests in software: patent, copyright and trade secret protection. An explanation of each means will be given and the advantages and disadvantages of each will follow. The newer extra-intellectual-property means of shrink-wrap license agreements and state software license enforcement acts will then be examined, including the potential advantages and disadvantages of each. Next, the preemption of state law by the federal intellectual property system will be examined, including both the constitutional preemption doctrine and the statutory copyright preemption doctrine. An analysis of *Vault v. Quaid* and a brief conclusion will follow.

II. BACKGROUND

A. PATENT PROTECTION

The developer of a computer program may look to the patent laws¹⁵ for protection of his proprietary interests. The patent laws are based on the United States Constitutional provision that Congress shall have the power "to promote the progress of science and the useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."¹⁶ Congress exercised this power by codifying and enacting patent statutes in Title 35 of the United States Code.¹⁷ These patent statutes contain no special provisions for computer programs;¹⁸ therefore software is subject to the same patentability standards that all other inventions must meet.

A patentee is granted the right to exclude others from making, using or selling the invention covered by the patent.¹⁹ This right to exclude lasts for seventeen years after the date the patent is granted.²⁰ The right to exclude use is effective not only against those who copy

15. For a detailed statement of the law of patents, see P. ROSENBERG, *PATENT LAW FUNDAMENTALS* (1984 Revision); Costas & Harris, *Safeguarding Intellectual and Business Property—II*, 35 CONN. B.J. 569 (1962). See also 1 BENDER, *supra* note 1, secs. 3A.01-3A.07 (discussing patent protection of computer software).

16. U.S. CONST. art. 1, § 8, cl. 8.

17. 35 U.S.C. §§ 1-376 (1982).

18. See *id.*

19. 35 U.S.C. § 271(a) (1982).

20. *Id.* at § 154.

the invention, but also against non-copiers such as subsequent independent creators of the same invention.²¹ In this sense, the monopoly granted by a patent is quite broad.

The basic requirements for patentability are utility,²² novelty,²³ and nonobviousness.²⁴ Computer related inventions have had no special difficulty meeting these tests.²⁵ New applications for patents must also concern proper subject matter. The patent statutes set forth the subject matter of patents as any "process, machine, manufacture, or composition of matter"²⁶ and an invention must fall within one of these four categories for a patent to issue. The software creator will most often categorize his invention as a new process or method.²⁷

However, two major exceptions to the "process" category exist that are relevant to patentability of computer software: the mathematical formula²⁸ and mental steps²⁹ exceptions. A mathematical formula is not patentable because it is said to exist in nature and is therefore not invented.³⁰ A patent will also not be granted on a method if an essential feature of the method consists of mental participation. The rationale is that a mental step is non-technological and not part of the useful arts, but rather an intellectual concept and not subject to exclusive use by a patent grant.³¹

The application of these doctrines to computer software has been subject to changing judicial interpretation and is still developing.³² In

21. *Id.* at § 271(a).

22. *Id.* at § 101.

23. *Id.* at § 102.

24. *Id.* at § 103.

25. See Hyde, *Legal Protection of Computer Software*, 59 CONN. B.J. 298, 301 (1985).

26. 35 U.S.C. § 101 (1982).

27. The term "process" is synonymous with "method." See 35 U.S.C. § 100(b). A process is "a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing." *Cochrane v. Deener*, 94 U.S. 780, 788 (1876).

28. *LeRoy v. Tatham*, 55 U.S. (14 How.) 156 (1852).

29. *Gottschalk v. Benson*, 409 U.S. 63 (1972).

30. "A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented as no one can claim in either of them as an exclusive right." *LeRoy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1852).

31. See Hyde, *supra* note 25, at 302-03 (mental steps including those that can be performed by a person with pencil and paper are not within the statutory meaning of process).

32. In *Gottschalk v. Benson*, 409 U.S. 63 (1972), the inventor claimed a method for converting data into pure binary numerals. The Court stated: "The mathematical

a recent case, *Diamond v. Diehr*,³³ the Supreme Court considered the patentability of a process for curing rubber which included the use of a mathematical formula and a digital computer.³⁴ In finding the process patentable subject matter the Court stated: "Our conclusion regarding respondents' claims is not altered by the fact that in several steps of the process a mathematical equation and programmed digital computer are used."³⁵ According to *Diehr*, mathematical formula and algorithms may be part of a claimed invention so long as the formula or algorithm is not preempted by the patent.

A two step test has developed from a line of decisions³⁶ that applied the various Supreme Court holdings. The first step is to determine whether the claim directly or indirectly recites an algorithm. If it does not, the issue of a patent is not barred by § 101. If it does recite an algorithm, the issue is not barred if the algorithm is "applied in any manner to physical elements or process steps," provided that its application is circumscribed by more than a field of use limitation or non-essential post-solution activity. Thus, if the claim would be 'otherwise statutory,' . . . albeit inoperative or less useful without the algorithm, the claim likewise presents statutory subject matter when the algorithm is included."³⁷ Thus the decision in *Diehr* is viewed by some to be a breakthrough in the availability of patent law to computer related inventions.³⁸

There are several advantages to patent protection of software. The protection is broad in the sense that the patent grantee has the right to exclude use of the underlying algorithm, rather than the particular form of expression.³⁹ Thus patent protection is desirable

formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below to grant a patent is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself." *Id.* at 71-72.

In *Parker v. Flook*, 437 U.S. 584 (1978), the Supreme Court denied the issue of a patent. The existence of uses for the formula other than in the process claimed as well as the post-solution activity were held not to distinguish the case from *Gottschalk v. Benson*. For an in-depth discussion of the judicial history of computer software patentability, see 1 BENDER, *supra* note 1, §§ 3A.01-3A.03(2).

33. 450 U.S. 175 (1981).

34. *Id.*

35. *Id.* at 185.

36. *In re Freeman*, 573 F.2d 1237 (C.C.P.A. 1978); *In re Walter*, 618 F.2d 758 (C.C.P.A. 1980); *In re Abele*, 684 F.2d 902 (C.C.P.A. 1982).

37. *In re Abele*, 684 F.2d 902, 907 (C.C.P.A. 1982).

38. See Hyde, *supra* note 25, at 305.

39. See 1 BENDER, *supra* note 1, § 3A.07(1).

when the algorithm is capable of implementation in different expressions. Patent protection is broad also in the sense that independent origination of the patented software is no defense to an infringement suit.⁴⁰ Because the scope of the protection is so great, the need to litigate the actual copying is eliminated.⁴¹ The term of protection—seventeen years⁴²—is of adequately long duration since it exceeds the lifetime of a typical program.⁴³ Since the patent laws do not require secrecy of the invention, the developer need not attempt to maintain secrecy and may produce and distribute the product widely without jeopardizing any patent infringement claims.⁴⁴

Many disadvantages exist in patent law as applied to computer software. A major disadvantage is that although the useful life of a typical program is relatively short, frequently five years or less, the patent application process averages about 2 1/2 years.⁴⁵ Thus the program, if patented, is unprotected for a significant portion of its useful life. Additionally, the cost of attaining a patent is relatively high⁴⁶ while many software developers are relatively small and lacking in resources.

Another major disadvantage is the unavailability of patent protection to some programs. Many software products do not meet the various standards of patentability. Also, the value of a particular program may not be rewarded by the patent system. That is, the patent system requires novelty for the issue of a patent, yet some programs are valuable not for their novelty, but because of the tremendous amount of labor involved in their development.⁴⁷ The uncertainty and instability involved in patent law regarding computer software also poses problems as the software developer cannot ascertain what the law is or will be.⁴⁸

40. *Id.*

41. *Id.*

42. 35 U.S.C. § 154 (1982).

43. See 1 BENDER, *supra* note 1, § 3A.07(1).

44. *Id.*

45. *Id.* at § 3A.07(2).

46. The applicant must pay the P.T.O. at least \$3,200 to obtain a patent and have it remain in force for the seventeen years. 35 U.S.C. § 41 (1982). For individuals and small businesses the fee is reduced. See 37 C.F.R. § 1.9 (1987), 13 C.F.R. secs. 121.3-18 (1987). It is unusual for attorney's fees today to be less than \$2,000 to secure a patent. See 1 BENDER, *supra* note 1, § 3A.07(2).

47. "[T]he patent system rewards inspiration, whereas many programs are rendered valuable because of perspiration." 1 BENDER, *supra* note 1, § 3A.07(2).

48. *Id.*

B. TRADE SECRET PROTECTION

The law of trade secrets, unlike patents and copyrights, is derived from the common law of the states.⁴⁹ The definition of a trade secret cited with approval in most jurisdictions⁵⁰ appears in the Restatement (First) of Torts. It states:

A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers Generally it relates to the production of goods, as, for example, a machine or formula for the production of an article.⁵¹

Although the Restatement definition does not explicitly mention computer programs, courts have generally held programs to fall within this definition.⁵² Two requirements for a trade secret which are almost inseparable are secrecy⁵³ and novelty.⁵⁴ One who discloses or uses another's trade secret is liable if he discovered the secret by improper means.⁵⁵ A person will not be liable if he discovers another's trade secret by proper means, which include reverse engineering,⁵⁶ discovery under a license from the owner of the trade secret,⁵⁷ and observation

49. For a detailed statement of the law of trade secrets see R. MILGRIM, *TRADE SECRETS* (1985).

50. See R. MILGRIM, *TRADE SECRETS* § 2.01 (1985).

51. 4 *RESTATEMENT OF TORTS* § 757, comment b (1939).

52. *E.g.*, *Telex Corp. v. IBM Corp.*, 367 F. Supp. 258 (N.D. Okla. 1973), *rev'd on other grounds*, 510 F.2d 894 (10th Cir.), *cert. dismissed*, 423 U.S. 802 (1975), *rev'd on other grounds*, 555 F.2d 1382 (1977) (programs clearly fall within the definition of formula, patterns, compilations of information or technical knowledge which were used in IBM's business); *University Computing Co. v. Lykes-Youngstown Corp.*, 504 F.2d 518 (5th Cir. 1974).

53. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 476 (1974) (secrecy, in the context of trade secrets, implies at least minimal novelty).

54. The requirement of secrecy and novelty for a trade secret is clearly less than that for a patent to issue. *Id.* at 476.

55. See 4 *RESTATEMENT OF TORTS* § 757 (1939) (in general, improper means are those which fall below the generally accepted standards of commercial morality and reasonable conduct).

56. See *LA. REV. STAT. Ann.* § 51:1431 comment (a) (West 1987) (reverse engineering is starting with the known product which was acquired by fair and honest means, and working backward to find the method by which it was developed).

57. *Id.*

of the product in public use or on public display.⁵⁸ It is now well settled that federal intellectual property law does not preempt state trade secret law even though the trade secret is patentable.⁵⁹

There are several advantages of trade secret laws to developers of software. There is substantial certainty that computer programs are appropriate subject matter for protection under the trade secret laws.⁶⁰ Trade secrets encompass a wide range of subject matter. The program, data bases, intermediate materials such as flow charts, and ancillary material such as documentation are all protectable.⁶¹ Trade secret law protects both the underlying idea and the particular expression of the idea.⁶² Trade secret protection, like copyright protection, is available from creation, whereas patent application periods average about two years.⁶³ A final advantage of trade secret law is the potentially lengthy duration of the protection. The protection may last many years, so long as the information remains secret.⁶⁴

Just as trade secret protection has the potential for long duration it may also be subject to immediate loss due to discovery of the information by proper means. A trade secret may be lost through independent invention by others.⁶⁵ The remedy for trade secret misappropriation may be limited since litigation against the one who wrongfully made the information public may be the only course of action available.⁶⁶ Also, to avail himself of the protection of trade secret law, the proprietor must take affirmative steps to keep the information secret. Although there is a limit to the extent that the proprietor must guard his secrets,⁶⁷ a trade secret maintenance program can be expensive.⁶⁸ A final disadvantage of trade secret law is its obvious shortcomings with respect to goods embodying trade secrets that enjoy wide proliferation. The probability of disclosure of the trade secret, by inadvertent or intentional means, increases with the degree of its dissemination.⁶⁹

58. *Id.*

59. *See* *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 491-93 (1974).

60. *See* 1 BENDER, *supra* note 1, § 4A.01[5][a].

61. *Id.*

62. *Id.*

63. *Id.*

64. *Id.*

65. *Id.* at § 4A.01[5][b].

66. *Id.*

67. *See* *E. I. DuPont de Nemours v. Christopher*, 431 F.2d 1012, 166 U.S.P.Q. 421 (5th Cir. 1970), *cert. denied*, 400 U.S. 1024, *reh'g denied*, 401 U.S. 967 (1971).

68. *See* 1 BENDER, *supra* note 1, § 4A.01[4][b].

69. *Id.*

C. COPYRIGHT PROTECTION

Federal copyright law⁷⁰ is based upon the same constitutional grant of power to Congress as the federal patent laws.⁷¹ Copyright law protects an author's particular expression of an idea from copying, not the idea itself.⁷²

The Copyright Act of 1976⁷³ is the main federal statutory protection for original works of authorship fixed in a tangible medium of expression.⁷⁴ These works of authorship include, but are not limited to, literary works; musical works; dramatic works; pantomime and choreographic works; pictorial, graphic, and sculptured works; motion pictures and other audiovisual works; and sound recordings.⁷⁵ Although at first glance computer programs do not seem to fit neatly within one of the enumerated categories protected by the Act, computer programs are regarded as an extension of the subject matter Congress already intended to protect.⁷⁶ The great weight of authority indicates that computer programs are entitled to protection under copyright law.⁷⁷ Computer programs are properly considered within the category of literary works to the extent that they incorporate authorship in the programmer's expression of original ideas.⁷⁸

70. For a detailed statement of the law of copyright, see M. NIMMER, NIMMER ON COPYRIGHT (1987) (Vols. 1-4).

71. See U.S. CONST. art. 1, § 8, cl. 8.

72. See *International News Service v. Associated Press*, 248 U.S. 215 (1918) (a newspaper article is protectable under copyright law but the news itself is not). See also H.R. Rep. No. 1476, 94th Cong., 2d Sess. 5, reprinted in 1976 U.S. CODE CONG. & ADMIN. NEWS 5659, 5670.

Some concern has been expressed lest copyright in computer programs should extend protection to the methodology or processes adopted by the programmer, rather than merely to the 'writing' expressing his ideas. Section 102(b) [of 17 U.S.C.] is intended, among other things, to make clear that the expression adopted by the programmer is the copyrightable element in a computer program, and that the actual processes or methods embodied in the program are not within the scope of the copyright law.

Id.

73. 17 U.S.C. §§ 101-810 (1982).

74. *Id.* at § 102(a).

75. *Id.* at § 102(a)(1-7).

76. See H.R. Rep. No. 1476, 94th Cong., 2d Sess. 5, reprinted in 1976 U.S. CODE CONG. & ADMIN. NEWS 5659.

77. See *Brignoli v. Balch Hardy and Scheinman, Inc.*, 645 F. Supp. 1201, 1204 (S.D.N.Y. 1986). See also *Videotronics, Inc. v. Bend Elec.*, 564 F. Supp. 1471, 1477 (D. Nev. 1983); *Apple Computer, Inc. v. Formula Int'l, Inc.*, 562 F. Supp. 775, 779 (C.D. Cal. 1983), *aff'd*, 725 F.2d 521 (9th Cir. 1984).

78. See *supra* note 77.

The Copyright Act affords the owner of a copyright the exclusive rights to reproduce the copyrighted work, to prepare derivative works⁷⁹ based upon the copyrighted work, to distribute copies of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease or lending.⁸⁰ The copyright owner is also given the exclusive right to authorize other persons to use the copyrighted work in the above listed ways.⁸¹ However, the Copyright Act lists several limitations on these exclusive rights that allow non-authors to reproduce the copyrighted work for the purposes of criticism, comment, news reporting, teaching, scholarship⁸² and archival use⁸³ without infringing upon the rights of the copyright holder.⁸⁴

An author may avail himself of copyright protection easily and inexpensively.⁸⁵ Copyright protection with respect to computer software is of extremely long duration since the duration of protection is the author's lifetime plus fifty years⁸⁶ while the effective life of typical computer software is not more than five years.

A major disadvantage of copyright protection is that infringement is difficult to police, especially for widely disseminated works.⁸⁷ Additionally, the method or process of which the program is an expression is not protected by copyright law.⁸⁸ Thus the copyright holder has no course of action against one who uses a different mode

79. "A 'derivative work' is a work based upon one or more preexisting works . . . in which a work may be recast, transferred, or adapted. A work consisting of editorial revisions, elaborations, or other modifications which, as a whole, represent an original work of authorship is a 'derivative work'." 17 U.S.C. § 101 (1982). To constitute a derivative work "the infringing work must incorporate in some form a portion of the copyrighted work." *Litchfield v. Spielberg*, 736 F.2d 1352, 1357 (9th Cir. 1984), *cert. denied*, 470 U.S. 1052 (1985). The infringing work must also be a "substantially similar" copy of the original work. *Id.*

80. 17 U.S.C. § 106 (1982).

81. *Id.*

82. *Id.* at § 107.

83. *Id.* at § 108. *See also id.* at § 117 (limitation of rights specifically regarding computer programs).

84. *See also* 17 U.S.C. § 109 (lawful owner of a copy may sell or dispose of the copy without infringing); 17 U.S.C. § 110 (certain displays and performances of a copyrighted work do not constitute infringement); 17 U.S.C. § 111 (certain secondary transmissions of the copyrighted work do not constitute infringement); 17 U.S.C. § 112 (certain recordings or copies made for purposes of later transmission do not constitute infringement).

85. 1 BENDER, *supra* note 1, § 4.09(1) (application fee is \$10 and compliance with application formalities is quick and easy).

86. 17 U.S.C. § 302(a) (1982).

87. 1 BENDER, *supra* note 1, § 4.09(2).

88. *See supra* note 72.

of expressing the same method or process. Finally, the extent to which a subsequent work must copy the original work before it is deemed an infringement is an uncertain and often difficult test to meet.⁸⁹

D. EXTRA-INTELLECTUAL PROPERTY MEANS OF PROTECTION

1. *Shrink-Wrap License Agreements*

In the face of the perceived inadequacies of legal protection, the software industry adopted extra-intellectual property means of protecting its proprietary interests in software.⁹⁰ An extra-intellectual-property device increasingly being used in relatively inexpensive mass-marketed software packages is the shrink-wrap contract. The terms of the "contract" are visibly displayed beneath the clear plastic heat-sealed wrapper around the software package.⁹¹ The vendee is deemed to have accepted the terms of the displayed agreement when he opens the plastic shrink-wrap or tears open the box.⁹² The acceptance is premised on the fact that provisions of the contract usually state in bold letters that by opening the wrapper or box the purchaser is consenting to the contractual restrictions on the purchaser's rights.⁹³

89. See *infra* text accompanying notes 175 and 185.

90. See 1 BENDER, *supra* note 1, § 3.01 (legal protection includes patent, copyright and trade secret protection while extralegal protection includes the use of technology to impede copying and the use of license agreements that limit vendee's rights to copy the software; these extralegal means may be used alone or in conjunction with legal means). See *supra* note 5.

91. See 1 BENDER, *supra* note 1, § 4A.02(4).

92. *Id.*

93. *Id.* Shrink-wrap agreements bring under scrutiny whether or not the traditional elements of contract formation are present. It is questionable whether the courts will view the simple act of opening a plastic wrapper as an informed consensual acceptance when a purchaser may genuinely assume that the printing under the wrapper is merely instructions or advertising. If this is the case, courts may hold that a simple sale occurred when the purchaser paid the distributor. 1 BENDER, *supra* note 1, § 4A.02(4). Also, there is an "established line of cases which are adverse to adhesion or standard form contracts in consumer transactions." *Id.* In *Vault* the court held that, absent the state shrink-wrap law, the shrink-wrap agreement is unenforceable as one of adhesion. *Vault v. Quaid*, 655 F. Supp. 750, 761 (E.D. La. 1987).

However, there are cases which approve of incorporating printed terms located on goods for sale into the contract. See *Hill v. BASF Wyandotte Corp.*, 35 U.C.C. Rep. Serv. 91, 97 (Callahan 1982). (printing on herbicide label that invited the purchaser to repudiate if unwilling to accept the terms); *Bickett v. W.R. Grace & Co.*, 12 U.C.C. Rep. Serv. 629, 636 (Callahan 1972) (printing on a tag on a bag of seed expressly made acceptance of seed conditional on acceptance of disclaimer of

The printed agreement also states that if the purchaser does not wish to agree to such terms, a full refund for the software will be made if the package is returned unopened.⁹⁴ The agreement terms usually give the purchaser a fully paid non-exclusive right to use the program contained in the device as often and as many times as the purchaser may want over an indefinite period.⁹⁵ In this sense, the addition of a shrink-wrap agreement onto the software package changes the nature of the transaction from an outright sale of goods between a retailer and a purchaser into a license agreement.⁹⁶ Since the transaction is a lease, the vendor retains a title to the program and attempts to restrict, through the terms of the agreement, the vendee's rights to copy, rent out, modify, reverse engineer or disassemble the program.⁹⁷ Thus, shrink-wrap contracts attempt to supplement available federal copyright protection by utilizing a contractual cause of action whenever the terms of the contract are breached.⁹⁸

2. *Software License Enforcement Acts*

Having observed the potential for courts holding shrink-wrap contracts unenforceable on traditional contractual bases, two state legislatures have enacted software license enforcement acts (SLEAs).⁹⁹ These statutes attempt to legitimize and make enforceable shrink-wrap contracts that might otherwise be held unenforceable by the courts.¹⁰⁰ The preamble to the Illinois statute states: "An act to protect against the unauthorized use, duplication, and distribution of computer software."¹⁰¹ These statutes delineate the manner in which the agreement must be written and displayed before the statute makes the agreement enforceable.¹⁰² The statutes generally require the written notice to be affixed to or packaged with the software,¹⁰³ that the

warranty provisions).

For a discussion of software shrink-wrap contracts and their enforceability under the Uniform Commercial Code, see Note, *The Protection of Computer Software Through Shrink-Wrap License Agreements*, 42 WASH. & LEE L. REV. 1347 (1985).

94. See 1 BENDER, *supra* note 1, § 4A.02(4).

95. *Id.*

96. *Id.*

97. *Id.*

98. *Id.*

99. *Id.*

100. See 1 BENDER, *supra* note 1, § 4A.02(4).

101. ILL. REV. STAT. ch. 29, para. 801 (1985).

102. ILL. REV. STAT. ch. 29, para. 803 (1985); LA. REV. STAT. § 51:1963 (West 1987).

103. ILL. REV. STAT. ch. 29, para. 803(1) (1985); LA. REV. STAT. § 51:1963(1) (West 1987).

notice be readily understandable and clearly conspicuous,¹⁰⁴ that the actions on the part of the purchaser that will constitute acceptance be clearly stated,¹⁰⁵ and that the notice state that the purchaser may return the unopened software package within a reasonable time if he does not accept and agree to the terms of the agreement.¹⁰⁶

The statutes then state which provisions, if included on the attached agreement, will be held enforceable by the statute if the acceptance of the contract has been properly manifested.¹⁰⁷ The statutes allow provisions for the retention of title by the vendor of the software.¹⁰⁸ If retention of title is provided for and thus a license agreement is created, other enforceable provisions include those for the limitation or prohibition of copying,¹⁰⁹ for the limitation or prohibition of disassembly and reverse engineering,¹¹⁰ and for the limitation or prohibition of the purchaser's right to transfer the software copy.¹¹¹ The statute does not require the vendor of the software to have a copyright on the program.¹¹²

The protection afforded by a valid shrink-wrap license agreement is broader in scope than that of copyright or trade secret protection.

104. ILL. REV. STAT. ch. 29, para. 803(4), (5) (1985); LA. REV. STAT. § 51:1963(1), (2) (West 1987).

105. ILL. REV. STAT. ch. 29, para. 803(1) (1985); LA. REV. STAT. § 51:1963(3) (West 1987).

106. ILL. REV. STAT. ch. 29, para. 803(4) (1985); LA. REV. STAT. § 51:1963(4) (West 1987).

The Illinois Act further requires that no additional agreements have been entered into between the parties regarding the use of the software, and that the software must not have been developed according to the acquirer's specifications. ILL. REV. STAT. ch. 29, para. 803(7)-(8) (1985). The former provision does not allow the shrink-wrap agreement to override a prior agreement. The latter provision recognizes that when software is custom-made to the acquirer's specifications there is a much better opportunity to negotiate terms of a lease or sale and the Act should therefore not apply.

107. ILL. REV. STAT. ch. 29, para. 804 (1986); LA. REV. STAT. ANN. § 51:1964 (West 1987).

108. ILL. REV. STAT. ch. 29, para. 804(1) (1985); LA. REV. STAT. § 51:1964(2) (West 1987).

109. ILL. REV. STAT. ch. 29, para. 804(2)(1985); LA. REV. STAT. § 51:1964(2) (West 1987).

110. ILL. REV. STAT. ch. 29, para. 804(3) (1985); LA. REV. STAT. § 51:1964(3) (West 1987).

111. ILL. REV. STAT. ch. 29, para. 804(4) (1985); LA. REV. STAT. § 51:1964(4) (West 1987).

112. ILL. REV. STAT. ch. 29, para. 801-08 (1985) (makes no mention of requirement of a copyright on the software for the Act to be enforceable); LA. REV. STAT. ANN. secs. 51:1961-66 (West 1987) (makes no mention of requirement of a copyright on the software for the Act to be enforceable).

The software vendor may stipulate restrictions on the use, copying and reverse engineering of the software in excess of the restrictions imposed by copyright or trade secret law. For example, under trade secret law reverse engineering of a lawfully acquired computer software disk is allowable, but reverse engineering of a disk can be restricted by inclusion of a clause in the shrink-wrap lease agreement that states the user will not disassemble or reverse engineer the program.¹¹³ The protection is also broader than that afforded by copyright law. Copyright law allows making copies of works for archival or back-up purposes¹¹⁴ while all copying—including copying for archival or back-up purposes—may be prohibited by inclusion of such a restrictive clause in the license agreement.¹¹⁵ These broader rights conferred on the vendor are viewed as advantages by the software industry.

The effect of software license restrictions on copying and reverse engineering, coupled with the use of technology and protective software on the diskette,¹¹⁶ is perhaps the major advantage of the license agreement. By prohibiting the decompiling and reverse engineering of computer software—including the protective software—other software developers are effectively precluded from developing programs that the buying public will use to copy the programs containing protective software. Since these other developers cannot copy or reverse engineer the protective software they cannot design software that will override the protective software and allow the copying of the underlying, protected program. Thus the buying public is prevented from copying programs containing protective software since there would be no software available to override the protective software. Software developers using shrink-wrap agreements would thus only need to police the software developers who are openly marketing programs that override protective software.¹¹⁷ The disadvantage, mentioned below,

113. ILL. REV. STAT. ch. 29, para. 804(3) (1985); LA. REV. STAT. ANN. § 51:1964(3) (West 1987).

114. 17 U.S.C. § 108 (1982).

115. See ILL. REV. STAT. ch. 29, para. 804(2) (1956); LA. REV. STAT. ANN. § 51:1964(2) (West 1987).

116. 1 BENDER, *supra* note 1, § 3.01 (technology may be used to render misappropriation more difficult). See *Vault v. Quaid*, 655 F. Supp. 750, 753 (E.D. La. 1987) (Vault Corp. manufactures diskettes containing computer programs that prevent the copying of the underlying program).

117. See, e.g., *Vault*, 655 F. Supp. at 753. *Vault* is an example of a protective software developer suing another software developer that mass-marketed programs to override protective software. See *infra* notes 169-217 and accompanying text.

of the vendors inability to police individual use is therefore mitigated to a great extent.

Another advantage of shrink-wrap license agreements is the general ease with which the protection is attained. The software vendor must merely meet the requirements of the applicable SLEA with respect to the printing of the agreement on the software package in order for protection to be afforded.¹¹⁸ Protection is thus inexpensive. The effective date of protection occurs when the vendee accepts the terms of the agreement by opening the shrink-wrap. Thus the protection begins immediately contrary to protection afforded by a patent.¹¹⁹ The effective term of the protection is adequate since the promise on the part of the vendee is for as long as he uses the program.

The disadvantages of shrink-wrap licenses fall mainly on the consumer. The buyer's rights may be fewer under a shrink-wrap license than under an otherwise ordinary sale of goods protected only by copyright law. The lease agreement may restrict the buyer from copying the program for archival or back-up use.¹²⁰ Copyright law allows the buyer to copy for archival or back-up use without infringing the copyright.¹²¹ A shrink-wrap lease agreement may also limit or prohibit the transfer of the disk by the lessee.¹²² A buyer, according to copyright law, however, is allowed to transfer his copy without infringing the copyright.¹²³ Thus the resale value of the software to the consumer is limited, if not eliminated, by a shrink-wrap license.¹²⁴

118. See ILL. REV. STAT. ch. 29, para. 803 (1985); LA. REV. STAT. ANN. § 51:1963 (West 1987).

119. Application process for attaining patent protection averages about 2 1/2 years after developing the product. 1 BENDER, *supra* note 1, § 3A.07[2]. Thus, a product developer would have to wait about 2 1/2 years to sell his product in order for the product to be protected by a patent. By utilizing a shrink-wrap license, a software developer does not wait; he merely markets the software package with the properly attached license agreement. The protection is then immediate upon the buyer's assent to the license agreement (i.e. upon opening the software package or using the software).

120. ILL. REV. STAT. ch. 29, para. 804(2) (1985); LA. REV. STAT. ANN. § 51:1964(2) (West 1987) (allowing terms that prohibit lessee from copying for any purpose).

121. 17 U.S.C. § 108 (1982).

122. See ILL. REV. STAT. ch. 29, para. 804(4) (1985); LA. REV. STAT. ANN. § 51:1964(4) (West 1987).

123. 17 U.S.C. § 109 (1982) (lawful owner of a copy may sell or dispose of the copy without infringing copyright).

124. The disadvantage of a buyer attaining fewer rights due to a shrink-wrap license agreement would be mitigated of course if the vendor lowers the price of the software in accordance with the shrinking bundle of rights granted to the buyer. See

A final disadvantage of SLEA's is that they may clash with the objectives of the federal intellectual property system and, therefore, as discussed below, may be preempted by federal law.

E. FEDERAL PREEMPTION OF STATE LAW

There are two ways in which state laws can be held unenforceable due to their preemption by federal law: on federal statutory grounds¹²⁵ and on constitutional grounds.¹²⁶ This note will first discuss the federal statutory preemption doctrine and then the constitutional preemption doctrine.

1. Federal Statutory Preemption

The Copyright Act establishes preemption with respect to state laws. Section 301(a) of the Act provides:

[A]ll legal or equitable rights that are equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106 in works of authorship that are fixed in a tangible medium of expression and come within the subject matter of copyright as specified by sections 102 and 103, . . . are governed exclusively by this title. Therefore, no person is entitled to any such right or equivalent right in any such work under the common law or statute of any state.¹²⁷

The next portion of the Act—section 301(b)(3)—states conversely:

Nothing in this title annuls or limits any rights or remedies under the common law or statutes of any state with respect to activities violating legal or equitable rights that are not equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106.¹²⁸

Thus, in order for a state law to avoid preemption by section 301, that state law must contain an element not equivalent to the rights granted a copyright holder under section 106. The rights listed in section 106 are the right:

1 BENDER, *supra* note 1, § 301 (vendor may offer commercial incentives to enhance the value of taking a license).

125. This note will not discuss the constitutionality of the statutory preemption doctrine.

126. See note 159 and accompanying text.

127. 17 U.S.C. § 301(a) (1982).

128. *Id.* at § 301(b)(3).

- 1) to produce the copyrighted work in copies. . . ;
- 2) to prepare derivative works based upon the copyrighted work;
- 3) to distribute copies . . . of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
- 4) in the case of literary . . . works, to perform the copyrighted work publicly; and
- 5) in the case of literary . . . works, to display the copyrighted work publicly.¹²⁹

The legislative history of section 301 indicates it was "intended to be stated in the clearest and most unequivocal language possible, so as to foreclose any conceivable misinterpretation of its [Congress'] unqualified intention that Congress shall act preemptively, and to avoid the development of any vague borderline areas between State and Federal protection."¹³⁰ It may be doubted whether this Congressional objective has been achieved.¹³¹

The legislative history of section 301 discusses the rights that are "different in nature" from the exclusively granted rights of copyright and therefore not preempted by the Copyright Act.¹³² Rights of privacy, trade secrets, the general laws of defamation and fraud were not intended to be preempted but "would remain unaffected as long as the cause of action contains elements, such as invasion of personal rights or a breach of trust or confidentiality, that are different in kind from copyright infringement."¹³³ Scrutinizing this passage of legislative history, it seems apparent that not all of the elements of the state cause of action need be different in kind from those of section 106 of the Copyright Act. The language indicates that only one of the elements of the unaffected cause of action must be different in kind from copyright to prevent the preemption of the action by

129. *Id.* at § 106.

130. H.R. REP. No. 1476, 94th Cong., 2d Sess. 5, reprinted in 1976 U.S. CODE CONG. & ADMIN. NEWS 5659, 5746.

131. 1 NIMMER, NIMMER ON COPYRIGHT § 1.01(B) (1987).

132. H.R. REP. No. 1476, 94th Cong., 2d Sess. 5, reprinted in 1975 U.S. CODE CONG. & ADMIN. NEWS 5659, 5745-49.

133. *Id.* at 5748.

the federal Copyright Act.¹³⁴ The legislative history goes on to state that "[n]othing in the bill derogates from the rights of parties to contract with each other and to sue for breaches of contract."¹³⁵ These passages are consistent since a breach of contract claim contains an element different in kind from a copyright infringement claim: a promise on the part of the breaching party. Several decisions have held contracts not preempted by federal copyright law.¹³⁶

134. *Roy Export Co. v. Columbia Bdcstg. Sys., Inc.*, 672 F.2d 1095 (2d Cir. 1982), is illustrative of the additional element contained in a cause of action which mandates the action not be preempted by federal law. The case involved the misappropriation and broadcast of a compilation of Charlie Chaplin films. The compilation, developed and copyrighted by the plaintiff Roy Export, required considerable effort to develop, of which the defendant was aware. The defendant did not merely broadcast the works but exhibited the additional element of bad faith, an element not required for copyright infringement actions to lie. The court stated that "the additional decision not only to use the film clips, but to use them in a distinct and original form whose commercial potential, as CBS knew, reflected someone else's effort and creativity, precludes any thought of good faith." *Id.* at 1106. In *Burma-Bibas, Inc., v. Excelled Leather Coat Corp.*, 584 F. Supp. 1214 (S.D.N.Y. 1984), the court followed *Roy* and granted punitive damages by holding the state unfair competition statute was not preempted by federal law. *Id.* at 1217. The allegations of unfairness and an unjustifiable attempt by the defendants to profit from the plaintiff's expenditure of time, labor and talent were sufficiently different from the allegations made in support of a trademark infringement cause of action. *Id.* at 1218.

Another illustrative case is *Gemveto Jewelry Co. v. Jeff Cooper, Inc.*, 613 F. Supp. 1052 (D.C.N.Y. 1985). The court stated that, "[w]ere Gemveto's claim predicated solely upon Cooper's having copied plaintiff's jewelry designs, the claim perhaps would be preempted by federal law. However, it is not merely product simulation but predatory practices that are the basis of the injunctive relief granted herein." *Id.* at 1064 (footnote omitted). The additional element in that case that prevented the preemption by federal law was the intent on the part of the defendant, since intent is not an element of either copyright, patent, or trademark infringement actions.

Note, however, that other courts disagree that intent is an additional element. See *Mayer v. Josiah Wedgewood & Sons, Ltd.*, 601 F. Supp. 1523, 1535 (S.D.N.Y. 1985) (other elements such as awareness or intent, which alter the actions' scope but not its nature, will not save the action from preemption under section 301). See also note 138 and accompanying text.

135. H.R. REP. NO. 1476, 94th Cong., 2d Sess., reprinted in 1976 U.S. CODE CONG. & ADMIN. NEWS 5659, 5745-9.

136. See *Werlin v. Reader's Digest Assoc.*, 528 F. Supp. 451 (S.D.N.Y. 1981) (breach of implied-in-law or quasi-contractual claim not preempted because the rights protected are qualitatively different from copyright); *Smith v. Weinstein*, 578 F. Supp. 1297 (S.D.N.Y. 1984) (claims of breach of express or implied contracts are not preempted); *Brignoli v. Balch, Hardy and Scheinman, Inc.*, 645 F. Supp. 1201 (S.D.N.Y. 1986) (breach of contract claims, trade secret claims and claims for breach of confidentiality not preempted).

This test has been referred to as the "extra element" test.¹³⁷ The court in *Meyer v. Josiah Wedgewood & Sons, Ltd.*¹³⁸ adeptly discussed the test. The court stated:

A right which is "equivalent to copyright" is one which is infringed by the mere act of reproduction, performance, distribution or display. . . . If under state law the act of reproduction, performance, distribution or display . . . will in itself infringe the state created right, then such right is preempted. But if other elements are required, in addition to or instead of, 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.¹³⁹

The court qualified this statement by saying that the "extra element, however, must be one which changes the nature of the action so that it is qualitatively different from a copyright infringement claim. Elements such as awareness or intent, which alter the action's scope but not its nature, will not save it from preemption under section 301.¹⁴⁰ Thus mere recitation of another element that does not change the nature of the action will not keep the action from being preempted by federal copyright law.¹⁴¹

137. *Mayer v. Josiah Wedgewood & Sons, Ltd.*, 601 F. Supp. 1523, 1535 (1985).

138. 601 F. Supp. 1523 (1985).

139. *Mayer*, 601 F. Supp. at 1535 (quoting 1 NIMMER, *supra* note 129, § 1.01(b)).

140. *Meyer*, 601 F. Supp. at 1535.

141. See generally 1 NIMMER, *supra* note 129, § 1.01 (Section 301 has been applied by various courts to preempt a wide range of actions). See also *Harper & Row, Publishers, Inc. v. Nation Enters.*, 501 F. Supp. 848 (S.D.N.Y. 1980) (conversion and tortious interference with contractual relations), *aff'd in part, rev'd in part*, 723 F.2d 195 (2d Cir. 1983), *rev'd on other grounds*, 471 U.S. 539 (1985); *Warner Bros. Inc. v. American Bdcstg. Co., Inc.*, 720 F.2d 231 (2d Cir. 1983) (unfair competition); *Crow v. Wainwright*, 720 F.2d 1224 (11th Cir. 1983), *cert. denied*, 469 U.S. 819 (1984) (crime of dealing in stolen property); *Mention v. Gessell*, 714 F.2d 87 (9th Cir. 1983) (common law copyright and misappropriation); *Editorial Photocolor Archives, Inc. v. Granger Collection*, 61 N.Y.2d 517, 474 N.Y.S. 2d 964, 463 N.E.2d 365 (1984) (misappropriation).

However, courts have found that state law claims similar to those listed above—some even sharing the same name—in fact survive § 301 preemption. See, e.g., *Oddo v. Ries*, 743 F.2d 630, 636 (9th Cir. 1984) (conversion and breach of fiduciary duty); *United States Trotting Ass'n v. Chicago Down Ass'n*, 665 F.2d 781, 785 n.6 (7th Cir. 1981) (conversion); *D.C. Comics, Inc. v. Filiation Assocs.*, 486 F. Supp. 1273 (S.D.N.Y. 1980) (unfair competition/misappropriation).

2. Constitutional Preemption

The Supremacy Clause of the Constitution mandates that federal law is supreme over state law.¹⁴² The clause thus provides another mechanism for holding state law preempted by federal law.¹⁴³ The first cases to decide upon the constitutional preemption of state laws by federal intellectual property laws were *Sears, Roebuck & Co. v. Stiffel*¹⁴⁴ and its companion case *Compco Corp. v. Day-Bright Lighting, Inc.*¹⁴⁵ (hereinafter *Sears - Compco*). In *Sears*, the Court held an Illinois unfair competition law unenforceable because it was preempted by federal law. The Court stated that, “[j]ust as a State cannot encroach upon the federal patent laws directly, it cannot, under some other law, such as that forbidding unfair competition, give protection of a kind that clashes with the objectives of the federal patent laws.”¹⁴⁶

In *Goldstein v. California*¹⁴⁷ the Supreme Court qualified the *Sears-Compco* decision by stating that the states retain concurrent power to grant copyright protection so long as such protection does not conflict with federal law.¹⁴⁸ The *Goldstein* decision indicated that only those categories of writings which Congress has brought within the scope of the federal statute were ineligible for state law protection.¹⁴⁹ The holding in *Goldstein* is quite similar to section 301(b)(1) which excludes from federal preemption “subject matter that does not come within the subject matter of copyright as specified by sections 102 and 103. . . .”¹⁵⁰ The opinion did not expressly set out the additional requirements set out in section 301(b)(3) of the Copyright Act; namely, that there is no preemption as to “activities violating legal or equitable rights that are not equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106.”¹⁵¹ However, this may have been implied in *Gold-*

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

143. The Supremacy Clause was the only means of preemption before the 1976 Copyright Act was enacted. Section 301(b) states that the preemption doctrine stated in the Act is only enforceable in causes of action arising after January 1, 1978. 17 U.S.C. § 301(a)(b) (2) (1982).

144. 376 U.S. 225 (1964).

145. 376 U.S. 234 (1964).

146. *Sears, Roebuck & Co. v. Stiffel*, 376 U.S. 225, 231 (1964).

147. 412 U.S. 546 (1973).

148. *Id.* at 560-61.

149. *Id.* at 559.

150. 17 U.S.C. § 301(b)(1) (1982).

151. *Id.* at § 301(b)(3).

stein.¹⁵² Thus section 301(b)(3) of the Copyright Act has been viewed by one court as a codification of the constitutional preemption doctrine expressed in *Goldstein* to the extent that state laws containing elements not equivalent to elements of copyright do not conflict with federal copyright law.¹⁵³

However, the Supreme Court's opinion in *Aronson v. Quick Point Pencil Co.*¹⁵⁴ seems contrary to the view that section 301 is a complete codification of the constitutional preemption doctrine. *Aronson* involved a contract between the inventor of a keyholder and a manufacturer.¹⁵⁵ The plaintiff manufacturer sought declaratory judgment that the royalty contract with the defendant inventor was unenforceable.¹⁵⁶ The issue before the Court was whether such a contract—which is made enforceable by state law—is preempted by federal patent law.¹⁵⁷ The Court explained the constitutional preemption doctrine as follows: “Commercial agreements traditionally are the domain of state law. State law is not displaced merely because the contract relates to intellectual property . . . ; the states are free to regulate the use of such intellectual property in any manner not inconsistent with federal law.”¹⁵⁸ Contrary to the extra-element test as applied to contracts, the Court did not hold the contract valid *per se* merely because it was a contract, but stated it was enforceable only if it was not inconsistent with federal law. Because the constitutional preemption doctrine does not hold contracts enforceable *per se* and the statutory preemption doctrine of section 301 does - because the promise element involved in a contract claim is not equivalent to elements of copyright - section 301 should not be viewed as a complete codification of the constitutional preemption doctrine. The further step of determining whether the state law conflicts with the objectives of federal law must also be taken.¹⁵⁹

The Court in *Aronson* went on to examine whether the contract in question clashed with the objectives of the federal patent system. Those objectives were listed as follows:

152. NIMMER, *supra* note 129, § 1.01(B) n.22.

153. See *Factors Etc., Inc. v. Pro Arts, Inc.*, 496 F. Supp. 1090 (S.D.N.Y. 1980) (“[I]t seems likely that Section 301 merely codified *Goldstein*. . . .” (quoting NIMMER, *supra* note 129, § 1.01[B] n.22.)), *rev'd on other grounds*, 652 F.2d 278 (1981).

154. 440 U.S. 257 (1979).

155. *Id.* at 259.

156. *Id.* at 260.

157. *Id.* at 260.

158. *Id.* at 262.

159. This further step can be viewed either as an entirely distinct doctrine from the Copyright Act's section 301 preemption analysis or intended by the legislature to be implied within the § 301 preemption analysis.

“First, patent law seeks to foster and reward invention; second, it promotes disclosure of inventions, to stimulate further innovation and permit the public to practice the invention once the patent expires; third, the stringent requirements for patent protection seek to assure that ideas in the public domain remain there for the free use of the public.”¹⁶⁰

The Court held that the agreement between the inventor, Aronson, and the manufacturer, Quick Point, was “not inconsistent with any of these aims.”¹⁶¹ Permitting inventors to contract with manufacturers provides an incentive to invent.¹⁶²

The Court also stated that enforcing the contract did not remove any idea from the public domain.¹⁶³ In fact, the manufacture and sale of the keyholder under the terms of the contract actually facilitated the wide dissemination of the design into the public domain.¹⁶⁴ The Court further stated that enforcement of the agreement would not discourage anyone from seeking a patent.¹⁶⁵ Finally, the Court implied that no monopoly was granted by enforcing the agreement since it does not prevent anyone from copying the keyholder design. “It merely requires Quick Point to pay the consideration which it promised in return for the use of a novel device which enabled it to preempt the market.”¹⁶⁶ Thus the Court held the contract between the inventor and manufacturer to be not inconsistent with the federal patent system and enforced the contract.¹⁶⁷

Aronson mandates that a contract does not escape preemption by federal intellectual property law merely because it is a contract. Rather, the contract must be examined in light of the supreme objectives of the federal intellectual property system. If enforcement

160. 440 U.S. 257, 262 (1979).

161. *Id.*

162. *Id.*

163. *Id.* at 263.

164. *Id.*

165. *Id.*

166. *Id.* at 264.

167. The Supreme Court used a similar method to decide *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974). At issue was the preemption of state trade secret protection by operation of federal patent law. *Id.* at 472. The court examined whether the attainment of the objectives of federal patent law—to promote the progress of science and useful arts—was hindered by the enforcement of state trade secret law. *Id.* at 480. The court held the state law was not preempted since the objectives of patent law would not be furthered if there were no state trade secret protection, and also because the objectives of patent law are not hindered by the existence of state trade secret law. *Id.* at 482-93.

of the contract terms would clash with these objectives, the contract should not be enforced.¹⁶⁸

III. *VAULT v. QUAID*

A. FACTS

*Vault Corporation v. Quaid Software Limited*¹⁶⁹ is the first case to scrutinize shrink-wrap contracts and state shrink-wrap statutes.¹⁷⁰ Vault Corporation was in the business of manufacturing data security software designed to prevent the copying of software programs.¹⁷¹ Its primary product, PROLOK, was a security program on an otherwise blank diskette. Vault sold these diskettes to other software producers who placed their own software on the diskette along with the security software. The security software on the PROLOK diskette then inhibited copying of the other software producer's programs.¹⁷² The security programs on the PROLOK diskettes were copyrighted by Vault¹⁷³ and the software packages were sold with a shrink-wrap license agreement attached.

Quaid Software Limited was also a software developer. It manufactured a software program called CopyWrite, which allowed the purchaser to make copies of programs that were contained on other floppy diskettes. A segment of the CopyWrite program called RAMKEY allowed a user to make copies of programs on PROLOK diskettes.¹⁷⁴ The RAMKEY program contained thirty characters that

168. The preemption of state law by federal intellectual property law is very controversial. Different courts have reached different results regarding the preemption of quite similar state statutes. *Bonito Boats v. Thunder Craft Boats*, 515 So. 2d 220 (1987), involved the preemption of a Florida statute that prohibited the copying of boat hulls by a direct molding process. The court stated that "[e]ither an article in the public domain is fully protected by patent or it may be copied in any manner." *Id.* at 222. The Florida Supreme Court held that the state law was preempted by the federal patent laws.

However, a similar case, *Interpart Corp. v. Italia*, 777 F.2d 678 (Fed. Cir. 1985), seems directly contrary to *Bonito*. *Interpart* involved a California statute prohibiting the duplication of manufactured items by a direct molding process. The Court of Appeals for the Federal Circuit held that the statute was not preempted. The court reasoned that the statute did not clash with the objectives of patent law since products could still be duplicated but not by the particular method of direct molding.

169. *Vault v. Quaid*, 655 F. Supp. 750 (E.D. La. 1987).

170. See 1 BENDER, *supra* note 1, § 4A.02(4) n.31.

171. *Vault*, 655 F. Supp. at 752.

172. *Id.* at 754.

173. *Id.* at 753.

174. *Id.* at 754.

were similar to thirty characters of the PROLOK program.¹⁷⁵ Quaid developed RAMKEY both by decompiling and disassembling the PROLOK program as well as by utilizing software programs that analyzed PROLOK without decompiling or disassembling.¹⁷⁶ Copies of PROLOK protected software could be made without RAMKEY or a similar product, but because of the PROLOK protective software the backup copy would only operate when the original PROLOK diskette was in either of the two disk drives of the computer. RAMKEY enabled the user to copy a PROLOK protected program such that the original was not required to use the copy.¹⁷⁷ Thus RAMKEY allowed the user to make effective backup or archival copies of a PROLOK protected program.

Vault sought permanent injunctive relief¹⁷⁸ as well as damages from Quaid. Vault based its claim on several alternative causes of action: copyright infringement, violation of the Louisiana Uniform Trade Secrets Act,¹⁷⁹ and the Louisiana Software License Enforcement Act.¹⁸⁰

B. THE COURT'S ANALYSIS

1. *The Court's Analysis of Vault's Copyright Infringement Claim*

The court first examined Vault's claim that Quaid infringed upon the copyright of the PROLOK program.¹⁸¹ Vault claimed that Quaid infringed the copyright in three different ways.

First, Vault claimed that whenever an employee of Quaid loaded a PROLOK diskette into a personal computer's random-access memory (RAM),¹⁸² Quaid was making an unauthorized copy of PROLOK

175. *Id.* at 755.

176. *Id.* at 755 (the different versions of RAMKEY were developed each by different means).

177. *Id.* at 755.

178. *Id.* at 752.

179. LA. REV. STAT. ANN. §§ 1431-39 (West 1987).

180. LA. REV. STAT. ANN. §§ 1961-1966 (West 1987).

181. Before this, however, the court first resolved the jurisdiction issue. Personal jurisdiction was found based upon the Louisiana long-arm statute. LA. REV. STAT. ANN. §§ 3201(a), (b), (d) (West 1987). Contacts included the sale of CopyWrite in Louisiana and Vault's claims of injury. *Vault v. Quaid*, 655 F. Supp. 750, 756 (E.D. La. 1987).

182. While in the RAM, the computer makes a temporary copy of the program. Any person who purchases a PROLOK disk must necessarily load the program into RAM in order to utilize the program. *Vault*, 655 F. Supp. at 758.

in violation of the law of copyright.¹⁸³ The court stated that 17 U.S.C. section 117(1) makes an exception when copying a program is an essential step in the utilization of the program. Quaid therefore did not infringe by loading PROLOK into RAM, an essential step in the utilization of the PROLOK program.¹⁸⁴

Second, Vault asserted that CopyWrite was an unauthorized derivative work of PROLOK in violation of Vault's copyright.¹⁸⁵ The court held that RAMKEY is not substantially similar to PROLOK and is therefore not a derivative work of PROLOK. Accordingly, the court held there was no violation of 17 U.S.C. section 106(2).¹⁸⁶

Third, Vault claimed Quaid contributorily infringed the copyright to PROLOK since CopyWrite could be used by third persons to make unauthorized copies of copyrighted software placed on PROLOK protected diskettes.¹⁸⁷ The court stated Vault lacked standing to assert this claim, since it was the software developers who sold their programs on PROLOK protected diskettes and not Vault whose copyrights were being infringed.¹⁸⁸ The court did say though, that even if Vault did have standing to assert this claim, the claim would fail. Since CopyWrite was capable of commercially significant noninfringing uses, such as making archival copies, the court found no contributory infringement on the part of Quaid.¹⁸⁹ The court thus disposed of all of Vault's various claims of copyright infringement.¹⁹⁰

2. *The Court's Analysis of Vault's Trade Secrets Claim*

The court then analyzed Vault's claim that Quaid violated Louisiana's Uniform Trade Secrets Act.¹⁹¹ Vault contended that Quaid's

183. *Id.*

184. *Id.*

185. See *supra* note 79 and accompanying text.

186. *Vault*, 655 F. Supp. at 759.

187. *Id.* at 758. The Copyright Act does not expressly hold a party liable for infringing acts committed by another. *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 434 (1984). However, "[t]he absence of such express language in the copyright statute does not preclude the imposition of liability for copyright infringements on certain parties who have not themselves engaged in the infringing activity." *Id.* at 435.

188. *Vault*, 655 F. Supp. at 759.

189. *Id.* No contributory infringement occurs when the product is capable of "commercially significant noninfringing uses." *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984). Noninfringing uses include those enumerated in the Copyright Act §§ 107-12. See 17 U.S.C. §§ 107-12 (1982).

190. The decision in *Vault* is illustrative of why software vendors do not rely merely upon copyright law but turn to extra-intellectual-property means to attempt to protect their financial investment.

191. LA. REV. STAT. ANN. § 1431-39 (West 1987). The court also decided which

acts of reverse engineering of the PROLOK program were improper means of ascertaining the information on the diskette.¹⁹² However, the statute defines "proper means" to include "[d]iscovery by 'reverse engineering', that is, by starting with the known product and working backward to find the method by which it was developed."¹⁹³ The acquisition of this "known product must of course, also be by a fair and honest means, such as purchase of the item on the open market for reverse engineering to be lawful."¹⁹⁴ Since Quaid purchased the PROLOK diskettes through the mail¹⁹⁵ and the reverse engineering and decompilation of PROLOK were not improper for purposes of the Louisiana Uniform Trade Secrets Act, the court accordingly held that the state statute was not violated.¹⁹⁶

3. *The Court's Analysis of Vault's Breach of Contract Claim*

The final analysis left for the court was that regarding Vault's breach of contract claim. Vault contended that the license agreement was binding. They claimed that the lease agreement was written and displayed as the Louisiana Software License Enforcement Act required and that acceptance was manifested by Quaid as the Act requires.¹⁹⁷ The agreement contained a provisions that prohibited the vendee from copying, translating, decompiling or disassembling the licensed software for any purpose without Vault's prior written consent.¹⁹⁸ Vault claimed the subsequent reverse engineering and disassembly of the PROLOK program by Quaid constituted a breach of the license contract for which damages should be awarded.¹⁹⁹

a. *The Court's Adhesion Contract Analysis*

The court began its analysis by stating the license agreement was one of adhesion without citing case precedent or any applicable statutes.²⁰⁰ The shrink-wrap contract, the court held, is only enforce-

state's law to apply. The court applied Louisiana law since the lease agreement specified which state's (La.) law would govern even though the contract was deemed one of adhesion. *Vault*, 655 F. Supp. at 760.

192. *Vault*, 655 F. Supp. at 761.

193. LA. REV. STAT. ANN. § 1431 comment (a)(2) (West 1987).

194. *Id.*

195. *Vault*, 655 F. Supp. at 754.

196. *Id.* at 761.

197. *Id.* at 752.

198. *Id.* at 753.

199. *Id.* at 752.

200. *Id.* at 761.

able if the Louisiana Software License Enforcement Act is a valid and enforceable statute.²⁰¹ Since the court held the agreement on the package was displayed in accordance with the terms of the Act,²⁰² the court next considered the validity and enforceability of the Act.

b. The Court's Statutory Preemption Analysis

The *Vault* court began its section 301 statutory preemption analysis of the case by finding that two of the rights allocated in the lease agreement that are enforceable under the state shrink-wrap law are "equivalent" to the rights protected under the federal Copyright Act.²⁰³ The first "equivalent right" is the right of the vendor to prohibit the vendee from copying "for any purpose."²⁰⁴ The Copyright Act allows the making of archival copies²⁰⁵ of the software as well as copies which are an essential step in the utilization of the program.²⁰⁶ Therefore, the court concluded, the SLEA is in direct violation of the Copyright Act and has granted even greater protection than the Copyright Act.²⁰⁷

The second "equivalent right" granted by the SLEA, the court held, was the right conferred on the vendee to prohibit, through the license agreement, "translating, reverse engineering, decompiling, disassembling, and/or creating derivative works based on the computer software."²⁰⁸ The Copyright Act grants the copyright owner the exclusive right to develop derivative works based on the original work.²⁰⁹ The right to prepare derivative works is an exclusive right under the Copyright Act and, the court implied, the state cannot grant the equivalent right.²¹⁰

The court did not expressly address the section 301(b)(3) exception to preemption for state laws involving rights "not equivalent" to those within the general scope of copyright as specified by section 106. By implication, it follows that the court did not find any rights granted by the SLEA to be "not equivalent" to those in section 106.

201. *Id.*

202. *Id.*

203. *Id.* at 762.

204. *See* LA. REV. STAT. ANN. § 1964(2) (West 1987).

205. *See* 17 U.S.C. § 108 (1982).

206. *Id.* at § 117.

207. *Vault v. Quaid*, 655 F. Supp. 750, 762 (E.D. La. 1987).

208. *Id.* quoting LA. REV. STAT. ANN. § 1964(3) (West 1987).

209. *See* 17 U.S.C. § 106(2) (1982).

210. *Vault*, 655 F. Supp. at 763, quoting 17 U.S.C. § 301(a) (1987).

c. The Court's Constitutional Preemption Analysis

The court moved to the constitutional preemption doctrine by implying that the SLEA "clashes with the objectives" of federal copyright legislation in two ways.²¹¹ First, the SLEA creates a perpetual bar against the copying of a program licensed pursuant to its provisions²¹² while the federal Copyright Act grants protection against unauthorized copying only for the life of the author plus fifty years.²¹³ Second, the SLEA places no restrictions on the programs which may be protected under its provisions,²¹⁴ while the Copyright Act protects only "original works of authorship."²¹⁵

The court then implied in its conclusion that the Louisiana Software Act is unenforceable because the Act is preempted by both the constitutional preemption doctrine and the statutory preemption doctrine of section 301.²¹⁶ The court held that, since the contract is unenforceable as one of adhesion, and since the Louisiana Software License Enforcement Act gives no enforceability to the contract since the Act is preempted by federal law, the contract is not enforceable. Vault's breach of contract claim, the court stated, failed.²¹⁷

The court thus disposed of Vault's copyright infringement, trade secret misappropriation, and breach of contract claims against Quaid.

IV. ANALYSIS²¹⁸

A. STATUTORY PREEMPTION

Section 301 is that part of the Copyright Act statute dealing with the federal preemption of state laws. Section 301(a) states that state laws which grant rights equivalent to any of the exclusive rights of copyright as specified in section 106 are preempted. The *Vault* court's

211. *Id.* at 763.

212. *See* LA. REV. STAT. ANN. §§ 1961-66 (West 1987) (no provision made for the maximum duration of a shrink-wrap lease agreement).

213. *See* 17 U.S.C. § 302(a) (1982).

214. *See* LA. REV. STAT. ANN. §§ 1962-63 (West 1987) (the only subject matter requirement is that the program meet the loose definition of computer software stated in § 1962).

215. 17 U.S.C. § 102 (1982).

216. *Vault*, 655 F. Supp. at 763.

217. *Id.*

218. This note will not address the court's holdings with respect to the copyright infringement claim or the trade secret misappropriation claim other than to assume their correctness. This note will analyze the *Vault* court's holding regarding the breach of contract claim, which includes the preemption issue.

determination that the elements of section 301(a) were met is not disputed here. Two rights, as the court pointed out, granted by the state statute were equivalent to those involved in copyright.²¹⁹ The first of these rights is the right to restrict the copying of the work, which is equivalent to the section 106(a) copyright grant of the right to reproduce the work.²²⁰ The second equivalent right granted by the SLEA is the right conferred on the vendee to prohibit, through the license agreement, "translating, reverse engineering, decompiling, disassembling and/or creating derivative works based on the computer software."²²¹ This right is equivalent to the right granted by section 106(2) to the copyright holder to exclusively develop derivative works based on the original work.²²² Thus the elements of the main portion of the preemption statute—section 301(a)—are met.

The court, however, did not expressly examine the second half of the preemption statute, which deals with exceptions to preemption.²²³ Section 301(b)(3) exempts from preemption state laws involving "activities violating legal or equitable rights that are not equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106."²²⁴ Thus the "extra element" test discussed above²²⁵ was not expressly considered by the court.

The SLEA contains an "extra element" that is not found in a copyright infringement action. The SLEA deals with provisions of a contract. Thus Vault's cause of action contained an element—a promise on the part of Quaid not to copy or decompile the program—qualitatively different from the elements of copyright infringement. Therefore, Vault's cause of action survives the "extra element" test.²²⁶

219. *Vault*, 655 F. Supp. at 762.

220. See 17 U.S.C. § 106(a) (1982). The *Vault* court states the equivalent exclusive right granted by copyright is that permitting the "making of archival copies from copies of computer software and permits copying which is 'an essential step in the utilization of the computer program.'" *Vault*, 655 F. Supp. at 762, quoting 17 U.S.C. § 117 (1987). Thus the court did not say a right specified within § 106 was granted by the state law, which is required by § 301(a). The language of § 301(a) states that the right must be within the "general scope of copyright as specified by § 106," so the court implied that this broad language has been met.

221. LA. REV. STAT. ANN. § 1964(3) (West 1987).

222. 17 U.S.C. § 106(2) (1982).

223. The court, however, did reprint the portion of the act dealing with exceptions to preemption. *Vault*, 655 F. Supp. at 762.

224. 17 U.S.C. § 301(b)(3) (1982).

225. See text accompanying note 137.

226. Vault's cause of action survives the face of the language of section 301(b)(3). However, if the constitutional preemption doctrine is viewed as implied within section 301 then the constitutional analysis must be performed before the section 301 analysis is complete. See *supra* note 159.

An argument can be made, though, that no additional element does in fact exist. If the contract, absent the SLEA, was unenforceable as one of adhesion—as the court held Vault's contract—then there may have been no actual element of a promise. Without a promise in fact by the purchaser the “extra element” was lacking. The state statute, by declaring that a promise was made and the contract is therefore enforceable, has imposed upon the parties an element that was not in fact present. The statute, thus viewed, contains a mere pretense of an extra element.²²⁷

However, an argument can be made for the actual existence of the extra element of a promise. Louisiana law regarding adhesion contracts is vague and uncertain.²²⁸ Within this environment the SLEA may be viewed as a codification—specific only to software shrink-wrap license agreements—of the uncertain law of adhesion contracts. A statute declaring software shrink-wrap contracts binding per se may be viewed as implying that the legislature decided on its own that most purchasers who open and use the software do in fact assent to the terms of the agreement. The SLEA implies that, because of the likelihood of consent in fact, the courts should defer policy judgments to the legislature and hold contracts that meet the statutory requirements binding per se.

The SLEA brings itself within the scope of preemption under section 301(a) by granting rights equivalent to those of copyright law. However, the Louisiana SLEA is exempted from preemption under the statute by the existence of an “extra element”—a promise on the part of the buyer—that is not present in a copyright action. The SLEA thus withstands federal statutory preemption.²²⁹

B. CONSTITUTIONAL PREEMPTION

The *Vault* court stated that both the constitutional preemption doctrine enunciated in *Sears-Compco* and the statutory preemption analysis stated in section 301 of the Copyright Act were applicable.²³⁰

According to the constitutional preemption doctrine a state may not pass laws that clash with the objectives of federal copyright

227. See 1 NIMMER, *supra*, note 129, § 1.01(B) n.46 (an obligation triggered by a contract may be subject to federal preemption if the obligation is imposed by state law rather than the consent of the parties to the contract).

228. See *Louisiana Power & Light Co. v. Mecom*, 357 So. 2d 596, 598 (La. App. 1st Cir. 1978).

229. See *supra*, note 226.

230. *Vault v. Quaid*, 655 F. Supp. 750, 763 (E.D. La. 1987).

laws.²³¹ The SLEA involved in *Vault* clashes with the objectives of federal copyright law in two ways: by keeping the programs out of the public domain in perpetuity, and by making federal copyright protection of software obsolete.

One of the objectives of copyright law is to encourage the entrance of works of authorship into the public domain.²³² This is achieved in the federal copyright system by the limitation of the term of the protection.²³³ After this term of copyright protection the work enters the public domain and anyone may copy the work without infringing. However, the purchasers of software protected by an SLEA would be prohibited from copying the software for as long as they possess it.²³⁴ Since each of the distributed software packages could be protected by use of SLEAs the work would be prevented from ever entering the public domain. The SLEA therefore conflicts with an objective of the federal copyright system.

Enforcement of state SLEA's makes the federal copyright system obsolete.²³⁵ Since the rights granted through the SLEA are equivalent to those under copyright,²³⁶ but potentially greater in scope than copyright,²³⁷ a software developer would have no reason to apply for copyright protection. All of the rights of copyright will have already been conferred by the SLEA so no additional rights are attained by copyright application; the rights conferred are in fact fewer through

231. *Sears, Roebuck & Co. v. Stiffel*, 376 U.S. 225, 230-31 (1964).

232. The Constitution empowers Congress to pass laws "to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." U.S. CONST. art. I, § 8, cl. 8 (emphasis added). Copyright protection is afforded for the life of the author plus fifty years or for 75 years in the case of an institution. 17 U.S.C. § 302(a), (b) (1982). The limited term of protection is evidence itself that entrance of works into the public domain after expiration of the term is an objective of the federal system. *Cf. United States v. Dubilier Condenser Corp.*, 289 U.S. 178 (1933) (expiration of the patent term allows the invention to enter the public domain so that the public can use it without restriction).

233. *See* 17 U.S.C. § 302 (1982).

234. *See* ILL. REV. STAT. ch. 29, para. 804 (1986); LA. REV. STAT. ANN. § 51:1964 (West 1987).

235. In considering whether state laws were preempted by the federal intellectual property system, the Supreme Court has considered whether the state law deters the public from application for federal protection. *See Kewanee Oil Co. v. Bicron Corp.* 416 U.S. 470 (1974) (state trade secrets law did not deter applicants to patent system); *Aronson v. Quick Point Pencil Co.* 440 U.S. 257 (1979) (non-preempted state-enforced contract did not deter application for patent protection).

236. *See supra* text accompanying note 203.

237. *See supra* text accompanying note 207.

copyright than through state SLEAs. The enforcement of SLEAs thus clashes with the objectives of federal copyright since the copyright system will not be used by the software developers.

It has been said that a contract does not confer a monopoly upon a party since the contract is only enforceable between the parties consenting to the contract.²³⁸ However, contracts of the type involved in *Vault* that are employed on each and every copy of a program sold to the consuming public effectively grant a monopoly quite similar to the monopoly granted under the federal copyright system. Through the workings of the state SLEA a developer can place restrictions on the rights of the consumer to copy²³⁹ and reverse engineer²⁴⁰ the software. Since the developer may place such contractual restrictions on each copy of the program the public purchases, the developer can enforce the restrictions against the entire consuming public. When contracts are utilized in this comprehensive manner a monopoly is effectively granted on the rights to copy the program.

The cases holding that a contract does not grant a monopoly and does not clash with the objectives of federal intellectual property law²⁴¹ are distinguishable from the cases involved in state SLEAs. The former generally involve contracts between an inventor or author and a manufacturer or publisher, respectively. Those license contracts contemplate an invention or original work being distributed to the buying public and, once in distribution, being protected solely by the federal intellectual property system. Such contracts are necessary to achieving the goal of wide dissemination of the work since they actually facilitate distribution.²⁴² The contracts given enforcement by SLEAs are not between author and manufacturer/distributor. Rather, they are between the manufacturer and each buyer. This distinction is critical. While the former facilitates distribution of ideas and contemplates proprietary protection from the consuming public through the federal intellectual property system, the latter effectively creates a monopoly of rights greater in scope than those of copyright, thus supplanting the federal system.

For the foregoing reasons the objectives of the federal copyright system are frustrated by the enforcement of state SLEAs. Therefore, the SLEAs are constitutionally preempted by federal law and the

238. See *Smith v. Weinstein*, 578 F. Supp. 1297 (S.D.N.Y. 1984).

239. See *supra* note 109.

240. See *supra* note 110.

241. See, e.g., *Aronson v. Quick Point Pencil Co.*, 440 U.S. 257 (1979), *Smith v. Weinstein*, 578 F. Supp. 1297 (S.D.N.Y. 1984).

242. See *Aronson*, *supra* note 154, at 263.

contracts that depend on SLEAs for enforcement—such as the contract in *Vault*—can not be enforced.

V. CONCLUSION

The computer software industry is a major, growing American market. Members of the industry have sought to protect their substantial investment in the development of this software through the application of legal protection. These legal protections have been inadequate in preventing unauthorized copying—pirating—of computer programs. The industry thus turned to extra-intellectual-property means of protecting its proprietary interests by including shrink-wrap license agreements on the software packaging. State legislators realized the need for supplemental protection and enacted Software License Enforcement Acts (SLEAs). The use of shrink-wrap agreements together with the use of protective software would reduce a large portion of the current unauthorized copying. But the SLEA which gives enforcement to the shrink-wrap license agreement has been held invalid by the *Vault* court.

The SLEA was within the scope of the statutory preemption doctrine of section 301(a) but was exempted from preemption by the language of section 301(b)(3). However, the constitutional preemption doctrine mandated that because the SLEAs clashed with the objectives of the federal copyright system they are preempted. The court in *Vault* correctly denied enforcement of the contract. Thus, a state scheme of laws that would help reduce unauthorized copying of software cannot be enforced because it clashes with the operation of the federal copyright system.

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