Copyrightability of Video Games: Stern and Atari

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**INTRODUCTION**

The protection afforded artists and inventors under the 1909 Copyright Act\(^1\) was inadequate almost from the Act's inception. The 1909 Act protected only those forms of expression or media already existing at the time of and explicitly outlined in the Act. As a result, new and developing modes of expression not provided for in the Act went largely unprotected.\(^2\) Amendments to the 1909 Act\(^3\) and several state statutes\(^4\) were eventually adopted to supplement the existing federal protection. Although Congress recognized early that the 1909 Act could not keep pace with technological growth, it was not until the enactment of the 1976 Copyright Act (the 1976 Act)\(^5\) that the law was revised to protect more modern media and developing artistic expressions.\(^6\)

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4. In California, for example, a statute which addressed the pirating of sound recordings was held not preempted by federal law. Goldstein v. California, 412 U.S. 546 (1973). The Court in Goldstein found that the state was exercising a power reserved to it by the Constitution. Id. at 559-60.
6. The language of the Act has not escaped criticism, however. The 1976 Copyright Act protects "original works of authorship fixed in any tangible medium of expression, now known or later developed..." Id. § 102(a) (emphasis added). The legislative history indicates Congress' intention to enact a sufficiently flexible statute which would protect technological advancements in artistic media.

Authors are continually finding new ways of expressing themselves, but it is impossible to foresee the forms that these expressive methods will take. The bill does not intend either to freeze the scope of copyrightable subject matter at the present stage of communications technology or to allow unlimited expansion into areas completely outside the present congressional intent. Section 102 implies neither that the subject matter is unlimited nor that new forms of expression within that general area of subject matter would necessarily be unprotected.

When enacting legislation governing the issuance of copyrights, Congress must adhere to the economic philosophy embodied in the Constitution. The copyright grant in the Constitution is founded on the premise that the public's interest in the advancement of and access to the sciences and arts is best

whether the 1976 Act will be any more immune to technological change than the 1909 Act; Katz, *A General Revision of the Copyright Law—From Bare Bones to Corpulence—A Partial Overview*, 4 PEPPERDINE L. REV. 213, 214 (1977) ("a partial overview of the new law... demonstrates that it raises perhaps as many problems as it solves, and may very well not have the promised flexibility, nor solve the problems which gave rise to its enactment in the first place."); Ringer, *The Unfinished Business of Copyright Revision*, 24 U.C.L.A. L. REV. 951 (1977) (concludes that further revisions may be necessary to create sufficient flexibility in the 1976 Copyright Act to handle changing technology).

Critics have also alleged that the flexibility of the Act may lead to confusion regarding the scope of subject matter intended to be protected by the Act. See, e.g., 1 M. NIMMER, NIMMER ON COPYRIGHT § 2.03(A) (1982) ("... if 'works of authorship' are neither so broad as to encompass all constitutional 'writings,’ nor so narrow as to be confined to the seven broad categories enumerated in Section 102(a), how is one to delineate the scope of such works?"); Patterson, *An Analysis of the 1976 Copyright Act*, 3 ALI-ABA COURSE MATR. J. 21, 35 (1978) ("No copyright statute in history has provided the courts with as great an opportunity for creative interpretation as the Act does. What the courts will do, of course, depends upon too many variables to hazard a guess.").

The legislative activity which led to the adoption of the 1976 Copyright Act has been called "one of the most laborious and painstaking legislative projects ever undertaken in the Congress." Lehman, *Legislative Background*, 25 BULL. COPYRIGHT SOCY. 192, 193 (1978). The first attempts to revise the 1909 Act can be traced to 1922. Between 1922 and 1940, several general revisions of the 1909 Act were introduced in Congress. The failure of these efforts was due largely to the controversy regarding the differences between the Berne Convention on copyrights, a multi-national agreement governing the grant and effect of copyrights, and U.S. law. H.R. REP. NO. 1476, 94th Cong., 2d Sess. 47, reprinted in 1976 U.S. CODE CONG. & AD. NEWS 5659, 5660. In 1955, Congress authorized the Copyright Office to conduct a three-year study to determine the areas of the copyright law needing revision. In the following years the Copyright Office made further studies and requested input from various private interest groups. These activities led to the introduction in 1964 of a draft revision of the Act in both the House and Senate. Neither House took action on this bill. Before the 89th Congress convened, the Copyright Office revised its draft bill. In 1965, this revised bill was introduced in both Houses. Hearings were conducted in both the Senate and House in 1965 and 1966, but the 89th Congress adjourned before a vote could be taken. In 1967, the House passed a bill to revise the 1909 Act. Due to the extensive controversy over the cable television provision of the bill as passed by the House, the bill did not come up for a vote in the Senate. In the following session of Congress, the 91st, no substantive action regarding copyright legislation was taken. The 92d Congress delayed action on the revision of the Copyright Act pending the Federal Communications Commission's adoption of rules regulating the cable television industry. Recognizing, however, the need to act immediately to combat the widespread growth of the pirating of sound recordings, Congress amended the 1909 Act to create a limited copyright in sound recordings. Pub. L. No. 92-140, 85 Stat. 391 (1971). The Senate passed a complete revision of the Copyright Act during the 93d Congress. Because insufficient time remained for the House to consider this complete revision of the Act, Congress again amended the 1909 Act. The Senate's amendments included an extension of the renewal term for copyrights due to expire, the permanent establishment of a copy-
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served by granting inventors and artists a monopoly for a limited period. Such a limited monopoly permits the inventors and artists to control the exploitation of their work. The inability of the 1909 Act to protect new forms of artistic expression jeopardized this constitutional objective. Without the assurance that their efforts would be rewarded by a grant of governmental protection, artists would lack the incentive to develop new media or to experiment with new types of expression. In drafting the 1976 Act, therefore, Congress sought to avoid language that would limit the scope of copyright protection to the then-existing media.

In two recent decisions, both the Second and Seventh Circuits have ruled on the copyrightability of a medium of artistic expression not specifically provided for in the 1976 Act. In both *Stern Electronics, Inc. v. Kaufman* and *Atari, Inc. v. North American Philips Consumer Electronic Corp.*, owners of copyrights for electronic video games sought to enforce their rights against alleged infringers. At issue in these cases was whether video

right for sound recordings and the creation of the National Commission on New Technological Uses of Copyrighted Works. In 1976, Congress finally enacted a revision of the Copyright Act in both Houses. The Senate passed the bill by a unanimous vote in February, 1976. An amended version passed the House on September 22, 1976. The Conference Committee Report was approved by both Houses on September 30, 1976. On October 19, 1976, President Ford signed the bill into law. See H.R. REP. NO. 1476, 94th Cong., 2d Sess. 47-49, reprinted in 1976 U.S. CODE CONG. & AD. NEWS 5659, 5659-62; Lehman, supra; Marke. *United States Copyright Revision and Its Legislative History*, 70 L. LIB. J. 121 (1977). 7. "The Congress shall have power . . . 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. See infra note 43. 8. The constitutional grant has been recognized to be "a limitation, as well as a grant, of power." Patterson, supra note 6, at 29. Congress is limited because it can grant copyrights only to authors of writings. See Mazer v. Stein, 347 U.S. 201, 219 (1954) (Douglas, J., concurring); 1 M. NIMMER, supra note 6, § 1.06 [A]. See also infra notes 18, 25. See generally Lindenberg-Woods, *The Smoking Revolver: Criminal Copyright Infringement*, 27 BULL. COPYRIGHT SOC'y 63 (1979). 9. See supra note 6. 10. 672 F.2d 607 (7th Cir. 1982). 11. 669 F.2d 852 (2d Cir. 1982). 12. In the *Stern* and *Atari* cases, the defendants were producing games which the plaintiffs alleged were substantially similar to their copyrighted games. In *Midway Mfg. Co. v. Artic Int'l Inc.*, 547 F. Supp. 999 (N.D. Ill. 1982), the defendants were producing speed-up kits which the plaintiffs alleged constituted a violation of their copyrights. The kits altered the play of the plaintiffs' games, making play more difficult by speeding up the action and shortening the play of the games. *Id* at 1004. The kits were designed to be connected to the memory boards of the plaintiffs' games. The district court held that it was likely the plaintiff would succeed in a case of copyright infringement on the merits.
games are copyrightable under the 1976 Act, and if so, the proper scope of such protection.\textsuperscript{13}

This article will review briefly the statutory requirements for copyright protection and the role of the courts in determining the scope of such protection. The decisions of the Second and Seventh Circuits will then be discussed and analyzed. Finally, this article will suggest that the 1976 Copyright Act is sufficiently flexible to protect video games as well as other new technologies, and that by so holding, the Second and Seventh Circuits furthered the economic philosophy embodied in the Constitution’s copyright clause.

**Statutory Requirements for Copyright Protection**

Section 102 of the 1976 Copyright Act outlines in general terms the subject matter eligible for copyright protection.\textsuperscript{14} In order to qualify for such protection, a work must be original, fixed in a tangible medium, and more than a mere idea.\textsuperscript{15}

*Originality*

Section 102(a) authorizes the grant of a copyright only to original works.\textsuperscript{16} This requirement of originality is mandated by the constitutional provision authorizing Congress to issue copyrights and thus entered a preliminary injunction against further sale or production of speed-up kits by the defendants. \textit{Id.} at 1014.

\textsuperscript{13} \textit{Atari}, 672 F.2d at 614-15; \textit{Stern}, 669 F.2d at 855.

\textsuperscript{14} Subject matter of copyright: In general

(a) Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. Works of authorship include the following categories:

(1) literary works;

(2) musical works, including any accompanying words;

(3) dramatic works, including any accompanying music;

(4) pantomimes and choreographic works;

(5) pictorial, graphic, and sculptural works;

(6) motion pictures and other audiovisual works; and

(7) sound recordings.

(b) In no case does copyright protection for an original work of authorship 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.


\textsuperscript{15} \textit{Id.}

\textsuperscript{16} \textit{Id.}
to authors. Though courts have interpreted the term "author" to mean the originator of any work, including works of science, Congress may not authorize the grant of a copyright to one who merely copies a prior-existing work. Originality under the 1976 Act is not satisfied, however, solely with the determination that one is an author and not a mere copier.

Although the 1976 Copyright Act does not define originality, the legislative history indicates Congress' intent that the courts continue to follow the standard of originality developed by the federal courts under the 1909 Act. Under this standard, if a work is the product of an artist's individual efforts, it is original; one need not prove that it is either novel or unique. Further, it

17. U.S. CONST. art. I, § 8. See also 1 M. NIMMER, supra note 6, § 1.06[A].
18. In Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 51-58 (1883), the Supreme Court determined that the drafters of the Constitution intended the term "author" to have a more expansive definition than simply one who wrote books. "An author in that sense is 'he to whom anything owes its origin; originator; maker; one who completes a work of science or literature'..." Id. at 57-58. See also 1 M. NIMMER, supra note 6, § 1.06[A].
19. 1 M. NIMMER, supra note 6, § 1.06[A].
20. "The phrase 'original works of authorship,' which is purposely left undefined, is intended to incorporate without change the standard of originality established by the courts under the present copyright statute." H.R. REP. No. 1476, 94th Cong., 2d Sess. 51, reprinted in 1976 U.S. CODE CONG. & AD. NEWS 5659, 5664.
22. In Stein v. Mazer, 204 F.2d 472 (4th Cir.), aff'd, 347 U.S. 201, reh'g denied, 347 U.S. 949 (1954), the Supreme Court upheld the appellate court's finding that plaintiffs' copyright registrations for statuettes of male and female dancers was valid. Plaintiffs' copyright was valid because the works owed their origin to the author, not because the subject matter itself was novel. 347 U.S. at 214 (affirming 204 F.2d at 474). In Wihtol v. Wells, 231 F.2d 550 (7th Cir. 1956), the court upheld the validity of plaintiff's copyright for a musical composition, even though the defendant contended that the tune came from a folksong in the public domain. The court held the work originated with plaintiff when "he devised a calculated melody score thus putting it in shape for all to read." Id. at 554.
is generally recognized that this originality standard prohibits little more than actual copying.\footnote{23}

Such a standard balances the competing, constitutionally protected interests of the individual artist and the public. While not requiring novelty or invention, it will not protect works which are no more than trivial variations of prior-existing creations. At the same time, because the standard of originality is minimal, most artistic and inventive efforts will qualify for protection under the 1976 Act. Thus, the incentive to experiment with and to develop new works will be kindled, and the public interest in the advancement of arts and sciences will be served accordingly.


As noted in the House Report: “This standard does not include requirements of novelty, ingenuity, or esthetic merit, and there is no intention to enlarge the standard of copyright protection to require them.” H.R. REP. NO. 1476, 94th Cong., 2d Sess. 51, \textit{reprinted in} 1976 U.S. CODE CONG. & AD. NEWS 5659, 5664.

The Supreme Court in Graham v. John Deere Co., 383 U.S. 1 (1966), suggested that this articulation of the standard of originality which the courts have long followed and which Congress recently adopted, was incorrect. The Court stated that the mandate of art. I, § 8 of the Constitution to “promote the progress of science and useful arts” establishes a standard of innovation. \textit{Id.} at 5-6. Even though the Graham decision was addressing the issue of the appropriate standard for patentability, Nimmer states that it is “arguable that the standard of novelty is constitutionally required under the federal copyright laws” by this statement of the Supreme Court in Graham. \textit{Id.} M. NIMMER, \textit{supra} note 6, § 2.01[A] n.10. However, as Nimmer concludes, it is unlikely that the courts will impose a novelty requirement. \textit{Id.} It is also unlikely that the Constitution requires novelty for the issuance of a copyright because of the recognized difference between patents and copyrights. For a good discussion of the constitutional requirements for copyright grants, see Alfred Bell & Co. v. Catalda Fine Arts, 191 F.2d 99, 101-03 (2d Cir. 1951).

\footnote{23} See, e.g., Gelles-Widmer Co. v. Milton Bradley Co., 313 F.2d 143 (7th Cir.), \textit{cert.}
Section 102(a) also provides that only works fixed in a tangible medium of expression are copyrightable. The fixation requirement derives from the constitutional limitation under which Congress may grant copyrights only to works that qualify as writings. The use of the term 'writings' in the Constitution implies that Congress may grant copyrights to tangible works of art but not to works that are transitory, that is, of only momentary duration. Thus, early cases held that a copyrighted work was not infringed when a copy of it was made if the copy could not be seen or read without the aid of a machine or device. The 1976 Act, however, specifically rejects these holdings.

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25. See Columbia Broadcasting Sys., Inc. v. DeCosta, 377 F.2d 315, 320 (1st Cir.), cert. denied, 389 U.S. 1007 (1967), in which the court noted: "the constitutional clause extends to any concrete, describable manifestation of intellectual creation; and to the extent that a creation may be ineffable, we think it ineligible for protection against copying simpliciter under either state or federal law." See also 1 M. Nimmer, supra note 6, § 1.08[C][2].

26. 1 M. Nimmer, supra note 6, § 1.08[C][2].

27. In White-Smith Publishing Co. v. Apollo Co., 209 U.S. 1 (1908), the Supreme Court denied the holder of a copyright for sheet music protection against the unauthorized production of piano rolls for the songs covered by sheet music copyrights. The Court held that these rolls were not copies within the meaning of the Copyright Act because the musical work could not be read without the aid of a machine. Id. at 18. Therefore, the production of the piano rolls was not an infringement of the copyrights plaintiff had received for the sheet music. Id.

28. The 1976 Act defines fixation as follows:

A work is 'fixed' in a tangible medium of expression when its embodiment in a copy or phonorecord, by or under the authority of the author, is sufficiently permanent or stable to permit it to be perceived, reproduced or otherwise communicated for a period of more than transitory duration. A work consisting of sounds, images, or both, that are being transmitted, is 'fixed' for purposes of this title if a fixation of the work is being made simultaneously with its transmission.

17 U.S.C. § 101 (1976 & Supp. V 1981). In the legislative history, it is noted that: "This broad language is intended to avoid the artificial and largely unjustifiable distinctions, derived from cases such as White-Smith Publishing Co. v. Apollo Co., 209 U.S. 1 (1908), under which statutory copyrightability in certain cases has been made to depend upon the form or medium in which the work is fixed." H.R. REP. NO. 1476, 94th Cong., 2d
Under the 1976 Act, a work, and copies of the work, may be fixed in any medium so long as they can be perceived for more than a transitory period of time. Further, the Act expressly protects works fixed in media which require a machine or device to aid perception. It is important to distinguish, however, the original work of authorship from the various copies in which it may be fixed. An original work of authorship is the product of the artist's individual efforts; a copy is the material object in which the work is fixed and from which it can be communicated. To be eligible for copyright protection an original work must be fixed in a copy. There is no limitation, under the Act, on the number of copies or the different types of media that an author may choose for presenting his work to the public.

The 1976 Act also grants exclusively to the author of the work the rights to reproduce or to authorize the reproduction of copies of his work, to prepare derivative works, and to distribute copies to the public. Thus, any unauthorized copying of the original work infringes on the copyright. These rights ensure that the

Sess. 52, reprinted in 1976 U.S. CODE CONG. & AD. NEWS 5659, 5665. See also 1 M. NIMMER, supra note 6, § 2.03[B].

29. Under the bill it makes no difference what the form, manner, or medium of fixation may be—whether it is in words, numbers, notes, sounds, pictures, or any other graphics or symbolic indicia, whether embodied in a physical object in written, printed, photographic, sculptural, punched, magnetic, or any other stable form, and whether it is capable of perception directly or by means of any machine or device 'now known or later developed.'


30. Id. See also supra notes 14, 28.

31. See supra notes 18-23 and accompanying text.

32. The 1976 Act defines copies and distinguishes them from the work itself. 'Copies' are material objects, other than phonorecords, in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. The term 'copies' includes the material object, other than a phonorecord, in which the work is first fixed.


33. See supra notes 14, 28.

34. See supra note 32.


(4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly; and
author will be able to control fully the financial exploitation of his work and thus be the prime beneficiary of his own effort.\textsuperscript{36}

\textit{An Idea Is Not Copyrightable}

Section 102(b) of the 1976 Act codifies the axiom of copyright law that copyright protection extends only to the particular expression of an idea and not to the idea itself.\textsuperscript{37} Accordingly, the courts will not protect those elements of a work that represent merely an idea.\textsuperscript{38} The concept of originality, as developed by the courts, is closely related to this principle.\textsuperscript{39} Since an idea is within the public domain, anyone is free to use it in developing a new work.\textsuperscript{40} The resulting new work may be copyrightable even if the idea is not new and has in fact been incorporated into copyrighted works by others.\textsuperscript{41} As previously noted, novelty of idea is not a requirement for copyright protection.\textsuperscript{42}

The constitutional economic philosophy underlying copyright grants is also related to this concept.\textsuperscript{43} One is permitted a
monopoly for "writings and discoveries" but no one is permitted to monopolize an idea. Nevertheless, most individual expressions of the idea will be protected. The drafters of the Constitution envisioned that such a balance would encourage the growth of technology. Drawing the line between what is idea and what is copyrightable expression, however, has not proved easy. In litigation, parties often contend that they copied merely the idea and not the copyrighted expression of that idea, leaving the courts to determine what elements of a work are copyrightable and what elements constitute the underlying idea. Unlike the patent law, the copyright statute does not place the burden on authors to identify explicitly which parts of their work they deem copyrightable when registering it.

The abstractions test, suggested by Judge Learned Hand, is one approach courts have used to determine whether the expression protected by copyright has been infringed. Under this approach, the courts analyze a work by using progressively greater generalizations to describe that work. In effect, the courts draw a line; they deny protection to those abstractions that are so broad and are applicable to so many works as to be only ideas, and they grant protection only to those elements that are sufficiently concrete or particular to a work as to be the author's own artistic representation of an idea.

45. See supra note 22.
46. See supra note 43.
47. See Peter Pan Fabrics, Inc. v. Martin Weiner Corp., 274 F.2d 487, 489 (2d Cir. 1960) ("Obviously, no principle can be stated as to when an imitator has gone beyond copying the "idea," and has borrowed its "expression." Decisions must therefore inevitably be ad hoc.").
50. Upon any work . . . a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out . . . [T]here is a point in this series of abstractions where they are no longer protected, since otherwise the playwright could prevent the use of his "ideas," to which, apart from their expression, his property is never extended. Nobody has ever been able to fix that boundary, and nobody ever can . . .
51. Id. But note that the line is drawn by the courts on a case by case basis, since it is
Some works embody a great deal of artistry. They build upon relatively basic ideas and bring to those ideas individual creativity that is entitled to protection. Such works receive a great deal of protection, and any work substantially similar to the many elements entitled to copyright protection will be held to infringe the copyright. In other works, however, the idea is indistinguishable from its expression. These works can only be expressed in a limited number of ways. Thus, the holder of a copyright for such works is entitled to very limited protection under the 1976 Act. Only an exact duplication will be prohibited. This is because works which only vary slightly from the copyrighted work are merely legitimate attempts by authors to use the same idea the copyright owner used. Other authors are entitled to use the idea, but are necessarily limited in the way it can be expressed.

In sum, ownership of a copyright says very little about the amount of protection an owner can expect. Each work will be reviewed to see where along the spectrum between "actual expression" and "mere idea" the various elements of that work fall. In addition, some elements of a work may be accorded greater protection than other elements. Thus, in an infringement suit, the defendant may contend that the entire work was not copyrightable or may assert that the copyright does not protect those elements which are similar to the defendant's work. The Second and Seventh Circuits have recently addressed the questions of copyrightability and the scope of copyright protection.

THE DECISIONS OF THE SECOND AND SEVENTH CIRCUITS

Stern Electronics v. Kaufman

In Stern Electronics v. Kaufman, Konami, a Japanese corporation, received from the United States Copyright Office a registration for the video game sold under the trademark SCRAM-

not possible to fix a standard applicable to all fact situations.


53. See cases cited supra note 52. See also 3 M. Nimmer, supra note 6, § 13.03[A][1].

54. Id.

55. Id.

Konami then granted an exclusive license to sell the game in North America to Universe Affiliated International, Inc., which simultaneously granted an exclusive sub-license to Stern Electronics. These license agreements were also recorded in the Copyright Office. In April of 1981, Omni Video Games began selling a video game which it called SCRAMBLE 2. Stern brought suit alleging that SCRAMBLE 2 was substantially similar to its own game, and therefore infringed Stern's copyright. Stern also moved for a preliminary injunction.

In a copyright infringement action, the plaintiff has the burden of proving that it holds a valid copyright for its work and that the defendant wrongfully copied that work. A certificate of registration issued by the Copyright Office creates the presumption that the plaintiff's copyright is valid. If the works at issue in the suit are substantially similar, infringement will be found. The defendant can rebut this presumption, however, by proving

57. 669 F.2d at 854.
58. Id.
59. Id.
60. Id.
61. Id.
62. Id.
64. The defendant can rebut this presumption, however, by proving

that the copyright at issue is invalid.\textsuperscript{66}

The defendant in *Stern* argued against issuance of the preliminary injunction on just this ground. Omni asserted that the audiovisual display was not an original work because it was totally dependent on the underlying computer program.\textsuperscript{67} Rather, the only original work in the game was the computer program,\textsuperscript{68} which the plaintiff had not registered. Therefore, the plaintiff's copyright of the audiovisual work was invalid and not infringed.\textsuperscript{69}

The district court rejected the defendant's arguments and found that the audiovisual display was a proper subject for copyright registration.\textsuperscript{70} The court held that the game was an audiovisual work as defined by the 1976 Act and that the display and program were clearly separable.\textsuperscript{71} Many different computer programs could be written to produce the same displays and many different displays could be produced by varying the program only slightly.\textsuperscript{72} Thus, registering the program would have provided the manufacturer little protection against those seeking to trade on its work.\textsuperscript{73} Finding further that the plaintiff would probably succeed at trial in proving a valid copyright, the court entered the preliminary injunction.\textsuperscript{74}

On appeal, the Second Circuit upheld the injunction, dismissing the defendant's contention that the plaintiff's copyright was invalid.\textsuperscript{75} The court noted that while the plaintiff might have received some protection by registering its computer program with the Copyright Office, this would not have prevented a competitor from producing the same game, thereby cutting into the plaintiff's profits.\textsuperscript{76} Moreover, the court found that the sights

\textsuperscript{66} See, e.g., Russ Berrie & Co. v. Jerry Elsner Co., 482 F. Supp. 980 (S.D.N.Y. 1980) (the court held that plaintiff's copyright registration was invalid for failure to advise the Copyright Office of facts which may have resulted in rejection of the application and, therefore, was incapable of supporting an infringement action).

\textsuperscript{67} 523 F. Supp. at 638; 669 F.2d at 855.

\textsuperscript{68} Id.

\textsuperscript{69} Id.

\textsuperscript{70} 523 F. Supp. at 638.

\textsuperscript{71} Id. at 639.

\textsuperscript{72} Id.

\textsuperscript{73} Id.

\textsuperscript{74} Id.

\textsuperscript{75} 669 F.2d at 855-56.

\textsuperscript{76} Id. at 855.
and sounds of the game were sufficiently original to be copyrighted.\textsuperscript{77} The court stated that simply because the production of the computer program preceded the production of the audiovisual display, which was fixed in the printed circuit boards, the validity of the copyright was not defeated.\textsuperscript{78} The originality required by the statute occurred at the initial conception of how the audiovisual display would appear and how it would sound. The work could be fixed in any medium, even if use of a machine to perceive the work was required.\textsuperscript{79}

The second issue presented by Omni on appeal was that because the game’s audiovisual display is responsive to and varies with the input of the game’s players, the work is not fixed in a tangible medium of expression as required by the 1976 Act.\textsuperscript{80} In addressing this issue, the Second Circuit cited the district court opinion in \textit{Midway Manufacturing Co. v. Dirkschneider},\textsuperscript{81} which held that the audiovisual displays of a video game were fixed in a tangible form.\textsuperscript{82} The court in \textit{Stern} noted that were there no participation by the players of the game, there could be no question that the game met the fixation requirement of the copyright

\textsuperscript{77} Id.
\textsuperscript{78} Id.
\textsuperscript{79} Id.
\textsuperscript{80} Id.
\textsuperscript{82} The defendants in \textit{Midway Mfg.} had argued that the audiovisual displays of video games were not fixed in a tangible form of expression and, therefore, were not entitled to copyright protection. They contended that the images and sounds were merely ephemeral projections. The court in \textit{Midway Mfg.} began its analysis by stating that, as audiovisual works, the games were proper subjects for copyright protection. \textit{Id.} at 426. The court noted that § 101 of the 1976 Act defines audiovisual works as “works that consist of a series of related images which are intrinsically intended to be shown by the use of machines or devised such as projectors, viewers, or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects, such as films or tapes, in which the works are embodied.” 17 U.S.C. § 101 (1976 & Supp. V 1981). Because the subject matter of the plaintiff’s copyrights was the games’ visual displays and accompanying sound effects and because the games’ visual displays were a series of related images “intrinsically intended to be projected on a cathode ray tube by means of electronic equipment,” the court found the works to be copyrightable audiovisual works. 214 U.S.P.Q. (BNA) at 426.

Next the court examined the Act’s fixation requirement. A work is fixed for copyright purposes as long as it is perceptible for more than a momentary period. \textit{Id.} at 427. The court found that the plaintiff’s audiovisual work was not transitory because the circuit boards (ROMs) which contained all possible game movements and which controlled the display did not vary; their existence was permanent. \textit{Id.} The image fixed therein would recur given the proper sequence of play. Thus, the court held that the fixation requirement of the 1976 Act had been met. \textit{Id.}
statute.\textsuperscript{83} The audiovisual work is permanently embodied in memory devices (ROMs) and becomes perceptible when connected to other electronic components in the machine.\textsuperscript{84} The court also held, however, that participation of the player of the game does not negate the work's copyright protection.\textsuperscript{85} Despite the variance of sights and sounds resulting from the player's actions, much of the game's appearance and sequence of play remains constant no matter who is at the controls.\textsuperscript{86} The characters on the screen always look the same, and the sounds heard whenever a player moves or causes a particular action to occur are always the same.\textsuperscript{87} Also, the sequence in which certain displays appear is always the same, even though an unskilled player may never see every possible display.\textsuperscript{88} As the court noted, the images and sounds remain fixed, and although the player can vary the movement of the images, he can never produce a display which was not initially fixed in the memory devices.\textsuperscript{89} Thus, the work met the fixation requirements of section 102(a) of the Act.\textsuperscript{90}

\textit{Atari, Inc. v. North American Philips Consumer Electronics, Corp.}

At about the same time that the Second Circuit was addressing the copyrightability of video games, the Seventh Circuit was considering the proper scope of such protection. In \textit{Atari, Inc. v. North American Philips Consumer Electronics Corp.},\textsuperscript{91} the plaintiff, Atari, owned the exclusive right to market the home version of the PAC-MAN video game; the plaintiff, Midway Manufacturing Co., owned the exclusive right to market the coin-operated arcade version of the game. Atari and Midway alleged that the defendant's K.C. MUNCHKIN game was substantially similar to PAC-MAN and moved for a preliminary injunction.\textsuperscript{92} The district court denied the plaintiffs' motion and they appealed.

\textsuperscript{83} 669 F.2d at 855.  
\textsuperscript{84} Id.  
\textsuperscript{85} Id. at 856.  
\textsuperscript{86} Id.  
\textsuperscript{87} Id.  
\textsuperscript{88} Id.  
\textsuperscript{89} Id.  
\textsuperscript{90} Id.  
\textsuperscript{91} 672 F.2d 607, 615 (7th Cir. 1982). This issue was specifically reserved by the court in \textit{Stern Elec., Inc. v. Kaufman}, 669 F.2d 852, 857 (2d Cir. 1982).  
\textsuperscript{92} 672 F.2d at 610.
Because the parties had stipulated to the validity of the plaintiffs' copyright, the only issue before the court of appeals was whether the second part of the prima facie case of copyright infringement had been met: were the two works substantially similar. The court stated that works are substantially similar if "an ordinary reasonable person would conclude that the defendant unlawfully appropriated the plaintiff's protectible expression by taking material of substance and value." Infringement occurs only if the artistic expression, the protectible expression, of two works is substantially similar. Similarity of the underlying idea is allowed.

In *Atari*, the Seventh Circuit began its application of this rule by considering the elements of the two games, including the appearance and movement of the characters, the sounds made and the basic play of the games. The court then applied the abstractions test to determine which elements of plaintiffs' PAC-MAN game were protected by the copyright.

As described by the court, PAC-MAN is a maze-chase game, in which a player scores points by guiding the central character through a maze while it is being pursued by various opponent characters. The player attempts to avoid these opponents and on occasion succeeds in capturing one. The capture of an opponent occurs when it temporarily becomes vulnerable to the central character. Points are scored when the opponents are overtaken and when the central character completes the maze. These elements were held unprotectible. Because they constituted an expression of the game "idea," anyone could use them without infringing the copyright.

The court then turned to those game elements which it termed "scenes a faire," that is, standard game devices only capable

93. *Id.* at 614.
94. *Id.* A prima facie case of copyright infringement requires that the plaintiff show ownership of a valid copyright and copying by the defendant. See also supra notes 64-66 and accompanying text.
95. 672 F.2d at 614.
96. *Id.* at 615. See also supra text accompanying notes 36-42.
97. 672 F.2d at 610-13.
98. *Id.* at 617. See also supra notes 49-51 and accompanying text.
99. 672 F.2d at 617.
100. *Id.* See also supra note 40 and text accompanying notes 38-41.
101. 672 F.2d at 617. *Scenes a faire* was an approach to the idea/expression dichotomy used by courts in a literary context. It referred to stock literary devices which, as a practi-
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of expression in a limited number of ways. The idea and the expression of the idea of such elements are nearly synonymous. Thus, they are only entitled to protection from virtual or identical copying of the copyrighted version. In the PAC-MAN work, the outline of the maze, the scoring table, the tunnel exits (which allow the central figure to escape capture by exiting one side of the maze and then reappear on the opposite side), and the dots for scoring were all scenes a faire elements entitled to this limited protection. Corresponding parts of the defendant's K.C. MUNCHKIN game, however, did not exactly duplicate these elements of the PAC-MAN game, and therefore no infringement of these elements was found.

The court also evaluated the respective characters used by K.C. MUNCHKIN and PAC-MAN, and based upon the similarity in their appearances, found infringement. As the court noted, maze-chase games can be expressed in many forms and Atari had created particular characters for its PAC-MAN game. The defendant had substantially imitated the plaintiffs' game in the shape and features of its figures, in the process by which its opponent becomes vulnerable, and in sounds accompanying play. Although there were slight differences between the defendant's and plaintiffs' games, the court held that the defendant was infringing the plaintiffs' copyrights and directed the district court to enter a preliminary injunction prohibiting the defendant from further infringement. In so holding, the court stated that the defendant's reliance on the differences between the games served only to highlight how much of the plaintiffs' game the defendant had deliberately copied. Thus, even though all elements were not duplicated, the overall similarity of the games led to a finding of infringement.

102. 672 F.2d at 617.
103. Id.
104. Id.
105. Id. at 619.
106. Id. at 617.
107. Id.
108. Id. at 618.
109. Id.

ANALYSIS

In seeking to provide protection to new and ever-increasing types of media and forms of expression, the 1976 Act did not set forth a list of protected items as the 1909 Act had done. Rather, the 1976 Act provided protection for works which are original, fixed in a tangible medium, and more than a mere idea. The decisions in *Stern* and *Atari* suggest that the 1976 Act is sufficiently broad to protect new and developing media of artistic expression.

**Originality**

In *Stern*, the court recognized that video games are an artistic expression entitled to full copyright protection. The manufacturers of audiovisual games operate in a somewhat unusual and highly competitive market. Although the profitable life of an audiovisual game is extremely limited, the costs of creating, developing and manufacturing a video game are quite substantial. The person who copies a successful video game is saved the high costs of development while being able to reap a high rate of return in a short time. Any distribution activity by a copier, therefore, will greatly cut into the copyright owner's profit potential. Consequently, without the assurance that its work will be protected by a copyright, the original manufacturer will have no incentive to invest time, effort and money into the creation and manufacture of new video games. The public will suffer because new games will not be brought into the market, and this new medium of expression developed for the entertainment of the public would in all likelihood stagnate. Such a result would not coincide with the economic philosophy expressed by the Constitution's copyright clause.

As recognized by the court in *Stern*, because more than one computer program can be used to achieve the same result, the

110. See supra notes 1-6 and accompanying text.
111. See supra notes 14-15 and accompanying text.
112. 669 F.2d 852 (2d Cir. 1982).
113. See supra text accompanying notes 75-79.
115. Id.
116. Id.
117. Id.
118. See supra notes 7-8 and accompanying text.
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end product of a computer program is not fully protected from copying by others simply by registering the program with the Copyright Office. This fact is particularly important to manufacturers of audiovisual games. The end product of the computer programs written for audiovisual games is the display seen and the sounds heard by the game’s player. It is these elements that make a game a public success and that must, therefore, be protected. Understandably, the plaintiffs in Stern obtained an audiovisual copyright, rather than a program copyright, so that the distinctive shapes, sounds and movements of the characters they had created would be protected.

The technology of the video game does require that a computer program be written before the audiovisual work can be seen by the public. The program is translated into a machine-readable object code and transferred to the printed circuit boards or ROMs. The ROMs are then connected to the electronics of the video game machine. This additional step did not detract from the court’s finding of originality of the work in Stern, however, nor should it have. It was merely the author’s choice of media. The constitutional objective to foster creativity was best served by the decision of the Second Circuit and by the rationale of that opinion.

**Fixation in a Tangible Form**

In addition, the economic philosophy underlying the copyright clause suggests that the public benefit derived from works that are simply ephemeral projections would be slight. Little would be gained by granting a monopoly in such instances where the work is not captured, since there would be little to exploit.

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119. 669 F.2d at 855. See supra text accompanying note 76.
120. 669 F.2d at 855.
121. See Data Cash Sys., Inc. v. JS & A Group, Inc., 480 F. Supp. 1063, 1065 (N.D. Ill. 1979), aff'd on other grounds, 628 F.2d 1038 (7th Cir. 1980): “A computer program has been defined generally as a set of precise instructions that tells the computer how to solve a problem.”

The computer program is then transferred to the game’s circuit boards. In its findings of fact, the court in Midway Mfg. Co. v. Dirkschneider, 214 U.S.P.Q. (BNA) at 421-22, explained the mechanical composition of video games as follows:

The audiovisual games involved here consist of a cabinet containing electronic circuitry and a television picture tube which serves as a screen upon which the visual images of the game are shown. The electronic circuitry is in the form of printed circuit boards and other electronic components which cause the images of each game to be seen on the screen and generate the sounds of each game.
The focus of the argument that the fixation requirement was not met in the video game cases was that the sounds and images of the audiovisual display varied with each individual player.\textsuperscript{122} Because the player controlled the display, it was argued, the audiovisual work was merely a succession of images of only momentary duration created by each game player.\textsuperscript{123} The analysis followed by the district court in \textit{Dirkschneider}, however, illuminates the fundamental flaw in this argument.\textsuperscript{124}

As the \textit{Dirkschneider} court noted, section 102(a) provides a definition of fixation which differs from that of court decisions preceding the 1976 Act.\textsuperscript{125} The new definition is very flexible; it contains no limitation on the type of material object an author may choose for the fixation of his work.\textsuperscript{126} Further, the statute specifically provides that authors may use forms or media not yet known at the time the statute was drafted.\textsuperscript{127} The only statutory restriction is that the form be sufficiently stable so as to permit perception of the work for more than a mere moment.\textsuperscript{128}

The audio and visual display of a video game is entirely contained in the ROMs, which control the display so that a specific scene or sound will be effected in response to the player's input. The movement of the characters can be controlled by the game player only if the ROMs contain instructions permitting such movements.\textsuperscript{129} The audiovisual works registered by the plaintiffs in \textit{Stern}, \textit{Atari}, and \textit{Dirkschneider} are fixed in such ROMs and are perceptible when the circuit boards are connected to the electronics of the video game machine. This process conforms with the definition of fixation contained in section 102(a).

A second provision of the 1976 Act also refutes the fixation

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\textsuperscript{122} See supra text accompanying notes 80, 82.
\textsuperscript{123} Id.
\textsuperscript{124} See supra note 82.
\textsuperscript{125} See supra notes 27-30 and accompanying text.
\textsuperscript{126} See supra notes 28-29.
\textsuperscript{127} See supra note 29.
\textsuperscript{128} See supra note 28.
\textsuperscript{129} See supra notes 82, 121.
argument made by the defendants. The Act specifically provides that an audiovisual work is performed when its images are shown to the public, in any sequence. Therefore, the validity of an audiovisual copyright is not affected merely because it may not appear in the same sequence each time it is performed. The work is complete and fixed in the printed circuit boards, and the player can exert only limited control over the sequence in which the work is displayed.

The plaintiffs in Stern and Atari created audiovisual works which were displayed not through traditional media, such as film or videotape, but through a new medium, printed circuit boards. Because this medium was chosen, plaintiffs’ works had a unique characteristic. The viewer of the work could become a participant and to an extent control the movement of the characters. The player’s skill determined just how long the display was seen and how many different movements and sequences challenged him before play ended. However, all the possible movements as well as the characters were created by the plaintiffs and fixed in the ROMs, just as all of a director’s work is captured on film. The form in which the work is fixed, which may or may not admit of added dimensions, should not control the copyrightability issue. The Stern and Dirkschneider decisions to this effect furthered the objectives of the Constitution and the copyright statute.

An Idea Is Not Copyrightable

Once a work is found to meet the threshold requirements for copyright protection of originality and fixation in a tangible form, the more difficult question must be faced, namely, what elements of the work will be accorded copyright protection and how extensive will that protection be. Some elements may be entitled to broad protection, while others will be protected only against exact duplication by others. This is a crucial determination for the copyright owner. Although the validity of the copyright registration may be upheld, the copyright may be meaningless if the court holds that the work is entitled to a very

130. To “perform” a work means to recite, render, play, dance, or act it, either directly or by means of any device or process or, in the case of a motion picture or other audiovisual work, to show its images in any sequence or to make the sounds accompanying it audible. 17 U.S.C. § 101 (1976 & Supp. V 1981).
131. See supra notes 51-55 and accompanying text.
limited scope of protection.

The copyright statute states that an idea is not protectible. The legislative history of the 1976 Act indicates that it was the intention of the drafters to neither increase nor decrease the scope of copyright protection, as understood under prior case law. Section 102(b) appears to be an affirmation that the idea/expression dichotomy developed by the courts is still viable under the new Act. The relevant case law, however, has offered no clear guidance, by way of a general principle, to assist courts in drawing the line between copying an idea and copying its expression. Indeed, it has been noted that the terms “idea” and “expression” are no more than labels for a result reached and not a tool for analyzing a problem.

The issue confronted by the Seventh Circuit in Atari was simplified by the fact that the subject matter under review was a game. Unlike a book or short story, the idea underlying a game is relatively easy to isolate. The manner or method of play of a game, which can often be determined by reading the rules of the game, is not protectible. Rather, it is the particular design and ornamentation which an author or manufacturer brings to his version of the game that constitute the protectible elements of a game under the 1976 Act.

The Seventh Circuit prohibited any monopolization of the elements of the PAC-MAN game which were necessary to play of the game. Further, it afforded a strictly limited scope of protection to those game elements which embodied some artistry but were incapable of being expressed in many different ways given the function they served. Finally, those parts of the game which were highly creative and capable of much variation without affecting the play of the game, were given a broad scope of protection. Although a decision in this area necessarily involves some subjectivity, the Seventh Circuit’s approach to this issue was very sound. It guarantees competitors the opportunity to use a successful game idea, while affording the copy-

133. See supra note 6.
134. See supra note 47.
136. See supra notes 101-05 and accompanying text.
137. See supra text accompanying notes 105-08.
138. See supra text accompanying notes 101-04.
139. 672 F.2d at 617-19.
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right owner sufficient protection to ensure that his incentive to develop new games is maintained. The public benefits because manufacturers of games are prohibited from copying all elements of what has proven to be a successful game. Competitors must rely on their own creative energies to develop new ways of presenting a game idea to the public. Although competitors are free to adopt the same premise as the established game, they must each build on the idea differently. The creative effort and expenditure of money required to develop the work is what the copyright protects. Thus, the decision of the Seventh Circuit fosters competition and ensures that creative development will not stagnate.

CONCLUSION

The Second and Seventh Circuit decisions demonstrate that new technologies used as media for artistic expression are protectible under the 1976 Copyright Act. More importantly, the rationale outlined by these decisions shows that the Act is sufficiently flexible to support the holdings of the courts. Thus, artists will be protected even though they use media not in existence at the time the Act was written. Finally, the Act and the decisions interpreting the Act further the constitutional interests of both the individual artist and the public under the copyright clause.

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