Galoob v. Nintendo: Derivative Works, Fair Use & Section 117 in the Realm of Computer Programs Enhancements

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GALOOB v. NINTENDO: 
DERIVATIVE WORKS, FAIR USE & SECTION 117 IN THE REALM OF 
COMPUTER PROGRAM 
ENHANCEMENTS 

I. INTRODUCTION

Because its boundaries are fixed by statute, copyright law has had great difficulty staying abreast of the dynamic growth of technology during the twentieth century. Computer technology has proven exceptionally problematic for Congress and the courts. Courts are reluctant to go beyond explicit legislative guidance, a resource which has been scarce and exceptionally opaque. On Congress's behalf, the rapid advance of technology makes legislation with adequate foresight elusive.

This Note will analyze the holding in Lewis Galoob Toys, Inc. v. Nintendo of America. First a background of copyright law relevant to computer technology and video games will be developed. Emphasis will be placed on the issues surrounding exceptions to a copyright holder's exclusive rights and the enhancement of computer programs.

II. BACKGROUND

Congressional and judicial lack of familiarity with computers has promulgated much of the confusion in the area of copyright law for computer technology. This lack of familiarity exacerbates the difficulties both institutions face when

1. See, e.g., Teleprompter Corp. v. Columbia Broadcasting Sys., 415 U.S. 394, 414 (1974) (the court was particularly restrained because the copyright legislation at issue was enacted before the technology involved was even conceived). See also Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417, 431 (1984), rehearing denied, 465 U.S. 1112 (1984) [hereinafter Sony]. "The judiciary's reluctance to expand the protections afforded by the copyright without explicit legislative guidance is a recurring theme."
Id. at 431.
2. No. 90-1586 & 90-1440 (N.D. Cal. 1991) (WESTLAW 149826, Allfeds directory) [hereinafter Galoob].
3. See Stern Elecs. v. Kaufman, 669 F.2d 852, 853 (2d Cir. 1982) (Video game defined as a computer programmed to create user manipulable images on a television screen. Video games thus involve a computer, computer program & a visual output.).
called upon to apply or modify copyright statutes to account for technology far more complex than that envisioned when the statutes were first constructed. In order to avoid similar confusion a background of computer technology and copyright law will be provided.

A. COMPUTERS & VIDEO GAMES

An in depth look into the operations of computers is beyond the scope of this Note. However, some explanation is necessary to understand the manner in which the products at issue operate and in order to determine the applicable law.

1. The Components

Computer technology is usually placed into one of two categories, those being: "hardware," the physical components of a computer, and "software," which is a general term encompassing computer programs in any of the variety of ways in which they may be stored. A simple way of viewing the interaction of the two is that the software consists of instructions telling the hardware what to do so as to accomplish some function for the user.

2. Computer Programs

A "computer program" is defined by the Copyright Act as "a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result." The set of instructions is known as the computer code or simply the code. Computer programs must provide for user interaction and some form of output in order to be useful and manipulable by the user.

Video displays are the typical means by which the computer communicates with the user. Generally both the user's

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5. Software is defined as recorded data, as programs, routines, and symbolic languages, requisite to computer operations. Id. at 1105.
7. "Code" is further broken down into 'source code' which is written in a language readily understandable by computer programmers and 'object code' (binary) which is readily understood by computers. Typically the program is written in 'source code' and then converted to 'object code.'
commands to the computer and the product of the computer’s operation are displayed on the video display.

The computer program generates the visual display and dictates the computer’s operation. Computer programs have been divided by the courts into literal and nonliteral aspects. The computer program’s code comprises the literal aspect. The visual displays, interface, etc., are the nonliteral aspect.

3. Video Games

A video game system is a computer dedicated to the single purpose of producing a visual output which the user can interact with according to a set of rules, generally with a goal such as scoring points or staying alive. Video games are computer programs designed to allow the interaction of the player with the visual display through the use of a joystick or other controller. The video game therefore has literal aspects, the code, stored typically in "game cartridges" and nonliteral aspects, the characteristic video display.

B. Copyright Law

1. History

Congressional power to protect innovation through patents, trademarks, and copyrights stems directly from the Constitution which provides that "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."

Modern copyright law has evolved from the early protections of the Copyright Act of 1790, through the Copyright Act of 1909, to the Copyright Act of 1976 as modified by a variety of factors.

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9. Id.
10. See Stern Elecs., 669 F.2d at 852.
of amendments, the most significant here being the Computer Software Copyright Act of 1980.15

Copyright law "is a means by which an important public purpose may be achieved."16 Congress grants limited monopoly privileges to authors and inventors as an incentive for ardent endeavor, not as a "special private benefit."17 Any reward is a secondary consideration.18 The Supreme Court has declared "[t]he sole interest of the United States and the primary object in conferring the monopoly lie in the general benefits derived by the public from the labors of authors."19

The Constitution makes Congress responsible for determining the scope and protection to be afforded copyright holders. The judiciary's role in copyright law has been limited, with the court acknowledging early on that copyright protection is wholly statutory.20

Such deference is entirely appropriate as these decisions involve exactly the kind of balancing test between competing interests that the legislative body was designed to make. "In enacting a copyright law Congress must consider . . . two questions: First, how much will the legislation stimulate the producer and so benefit the public; and, second, how much will the monopoly granted be detrimental to the public?"21 In granting copyright protections a balance is struck between a temporary monopoly, and the benefit which society will receive from the products stimulated through such protections.22

Recognition of the variety of issues arising from the computer market led Congress to create the National Commission

17. Id.
18. See Fox Film Corp. v. Doyal, 286 U.S. 123, 127 (1932).
19. Id.
22. See Lotus Dev. Corp., 740 F. Supp. 37. "Copyright monopolies are not granted for the purpose of rewarding authors. Rather, Congress has granted copyright monopolies to serve the public welfare by encouraging authors (broadly defined) to generate new ideas and disclose them to the public, being free to do so in any uniquely expressed way they may choose. [Citation omitted] . . . The immediate effect of our copyright law is to secure a fair return for an 'author's' creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good. [Citation omitted]." Id. at 52-53.
on New Technological Uses of Copyrighted Works (CONTU). CONTU's Final Report was influential in creating the Computer Software Copyright Act of 1980.

2. Scope

a. Expression v. Idea

"[O]riginal works of authorship fixed in any tangible medium of expression" qualify for protection under copyright law. It is well established that copyright protection extends only to the expression of an idea, not the idea itself. This distinction was codified in the Copyright Act of 1976. While appealingly elegant, application of this distinction has proven problematic.

b. Derivative Works

Among the exclusive rights granted to copyright holders is the right to prepare derivative works which are defined as

26. 17 U.S.C. § 102(b)(m). "In no case does copyright protection ... 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 a work." Id.
27. See Peter Pan Fabrics 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." Id. (emphasis in original).

A corollary to the idea/expression distinction is the merger doctrine which dictates that when an idea can be expressed in a single or very limited number of ways, the idea "merges" with the expression and copyright protection will not be afforded to either. See Broderbund Software v. Unison World, Inc., 648 F. Supp. 1127, 1131 (N.D. Cal. 1986). See also Lotus Dev. Corp., 740 F. Supp. at 37; Whelan Assocs., 797 F.2d at 1237. The audiovisual portions of a program are generally treated as expression and not idea because different programs can produce the same video output. See M. Kramer Mfg. v. Andrews, 763 F.2d 421 (4th Cir. 1986). However, in some instances courts have found that the idea, see Data East USA, Inc. v. Epyx, Inc., 862 F.2d 204 (9th Cir. 1988) [(at issue were two video games based on karate matches) The court found that "the visual depiction of karate matches is subject to the constraints inherent in the sport of karate itself." Id. at 209.] or external factors, see Plains Cotton Coop. Ass'n v. Goodpasture Computer Serv., 807 F.2d 1256 (5th Cir. 1987), rehearing denied, 813 F.2d 407 (1987), cert. denied, 484 U.S. 821 (1987) (holding that the structure and organization of a computer program to provide information to farmers about the cotton market might be dictated by the cotton market), limits the forms of expression and so merger becomes an issue.

28. Subject to §§ 107-20, the copyright owner has the exclusive rights to do and to authorize; reproductions of the work, prepare derivative works, distribute copies, perform the work publicly, or display the work. 17 U.S.C. § 106 (1991).
a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship, is a "derivative work." 29

Two cases have helped refine the definition of derivative works in the video game context. The first case, Midway Manufacturing v. Artic International, Inc., 30 involved a board 31 placed into the arcade video arcade game 32 "Galaxian" in order to speed up play. 33 Midway held the speeded-up version of "Galaxian" was a derivative work. 34 The Midway court added an equitable/economic analysis to the determination of what is a derivative work. 35 The pivotal factor in the determination was the potential for economic benefit to the arcade licensee. 36

Worlds of Wonder, Inc. v. Veritel Learning Systems, 37 followed a similar analysis. At issue in Worlds of Wonder was the "Teddy Ruxpin" talking bear whose mouth, eyes and limbs move in synchronization to its voice giving the impression the bear is telling the story contained on special tape cassettes. 38 The audiovisual work created was copyrighted by Worlds of Wonder, Inc. 39

30. 704 F.2d 1009 (7th Cir. 1983), cert. denied, 464 U.S. 823 (1983) [hereinafter Midway].
31. A piece of hardware to be placed inside a computer typically intended to alter or augment the computer's functioning. The defendant's board replaced one of the boards in the original "Galaxian" arcade game.
32. Arcade video games are free standing machines containing a computer system dedicated to running a single game when currency is inserted.
33. Midway, 704 F.2d at 1010.
34. Id. at 1014.
35. Id. at 1009.
36. Id. at 1014 (the court differentiated speeded-up video games and speeded-up phonographs on the potential for a separate market noting, "[a] speeded-up video game is a substantially different product from the original game." The speeded-up version could generate profits which should go to the copyright holder, and the defendant was trying to piggyback on the success of another's copyrighted product).
38. Id. at 352.
39. Id. at 353.
Veritel produced cassettes which worked in a similar manner when inserted in the "Teddy Ruxpin" talking bear. As with Midway, the Worlds of Wonder court was persuaded by the fact the product could only be used in conjunction with the plaintiff's copyrighted product and was trying to capitalize on the latter's success.

c. Literal v. Nonliteral Aspects

A computer program's literal aspects are protected under the classification of literary works, which are "works, other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols ...." Audiovisual works are specifically excluded from the category of literary works. There is an established line of cases recognizing that video games are copyrightable as audiovisual works. The respective copyrightability of the literal and nonliteral aspects of computer programs has plagued the courts and added a great deal of confusion to copyright law for computer programs.

40. Id. (Worlds of Wonder, Inc. alleged Veritels tapes produced audiovisual works which were substantially similar to those to which they owned the copyrights. Further, plaintiff alleged the tapes altered the display so as to take "Teddy Ruxpin" out of the "World of Teddy Ruxpin.")
41. Id. at 356.
42. Id.
45. Id.
46. Id.
48. It is well established that the literal aspects, i.e. the computer code, can be afforded copyright protection. See Lotus Dev. Corp., 740 F. Supp. 37.

The courts have had much greater difficulty determining the protection to be afforded to the nonliteral aspects of computer programs. There are two competing theories on copyrighting the nonliteral aspects of programs. The first theory espouses that the copyright of the computer program extends to the nonliteral aspects it creates. The second theory is that the nonliteral aspects produced by the program are separate works which are independently copyrightable.
3. Exceptions

a. Fair Use - § 107

The fair use doctrine is an equitable rule which "allows a holder of the privilege to use copyrighted material in a reasonable manner without the consent of the copyright owner." Section 107 codifies the judicial fair use doctrine and provides four factors to be considered when determining whether the fair use privilege is available.

1. The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational uses.
2. The nature of the copyrighted work.
3. The amount and substantiality of the portion used in relation to the copyrighted work as a whole.
4. The effect of the use upon the potential market for or value of the copyrighted work.

There are only two opinioned cases by the Supreme Court on the fair use doctrine, Sony Corp. v. Universal City Studios. As of June 3, 1988 the Copyright Office ceased to accept separate applications for the literal and nonliteral aspects of a single computer program. Abraham & Wessels, Current Judicial Developments in Copyright Protection for Computer Software, 275 PRAC. L. INST./PAT. 179, 182 (1989). "The Office has decided generally to require that all copyrightable expression embodied in a computer program, including computer screen displays, and owned by the claimant, be registered on a single application form." Id. The Copyright Office left the determination as to whether to copyright the program as a literary work or as an audiovisual work with the applicant, the choice to be made based on the predominate nature of the work. Id. "Ordinarily, where computer programs authorship is part of the work, literary authorship will predominate, and one registration should be made on Form TX. Where, however, audiovisual authorship predominates, the registration should be made on Form PA." Id. The Copyright Office did note that generally computer programs would be viewed as literary works. Id. Folsom v. Marsh, 9 F. Cas. 342 (C.C. Mass. 1841) (No. 4901) (judicially recognizing the fair use doctrine). Narell v. Freeman, 872 F.2d 907, 913 (9th Cir. 1989).

52. 17 U.S.C. § 107(3).
56. 464 U.S. 417 (1984). In Sony, Universal City Studios and Walt Disney Productions, owners of copyrights on several television programs which were broad-
and Harper & Row Publishers v. Nation Enterprises. Both decisions were based on the four fair use factors provided in section 107. Sony is the only fair use case in a contributory infringement context.

(1) Purpose and Character

The discussion of the purpose and character of an infringing use has become an investigation into whether the use is for profit or nonprofit. This factor is given a great deal of weight, with a presumption of fairness or unfairness hanging in the balance. Proof of harm or market loss is required in the case of nonprofit uses. This rule serves the purpose of copyright law which is to encourage innovation and distribute its benefits to the public. In addition, Harper & Row examined whether the user stood to benefit by the infringement without having paid the copyright holder the normal dues.

Cast over public airwaves, alleged the use of Sony's Betamax to tape copyrighted programs was an infringement in violation of section 106 and that selling the Betamax to the public constituted contributory infringement. The court considered the four section 107 factors and concluded that taping and time-shifting by home users for personal use was a privileged fair use.

At issue in Harper & Row were excerpts from an unpublished work by Gerald Ford which were published in The Nation as a scoop of a soon to be released book. In a six to three decision the Supreme Court held public interest in the subject matter did not make the unauthorized copying of parts of an unpublished manuscript into a fair use.


Sony, 464 U.S. at 451. "[E]very commercial use of copyrighted material is presumptively an unfair exploitation of the monopoly privilege ...." Id.

Id. at 451. "A challenge to a noncommercial use of a copyrighted work requires proof either that the particular use is harmful, or that if it should become widespread, it would adversely affect the potential market for the copyrighted work." Id.

Id. at 450. "The purpose of copyright is to create incentives for creative effort .... But a use that has no demonstrable effect upon the potential market for, or the value of, the copyrighted work need not be prohibited in order to protect the author's incentive to create." Id.

Harper & Row, 471 U.S. at 562. "The crux of the profit/nonprofit distinction is not whether the sole motive of the use is monetary gain but whether the user stands to profit from the exploitation of the copyrighted material without paying the customary price." Id. The court applied this test in considering that The Nation had profited from its use of the excerpts and had not paid the customary serialization fees. Id. This test is consistent with the analysis in Sony where the court noted the television broadcasters invited viewers to watch the TV presentations in their entirety for free. Sony, 464 U.S. at 449.
(2) **Nature of the Copyrighted Work**

Discussion of this factor has centered around two distinctions. The most important is whether the work is published.⁶⁴ The court has weighed an author's right to first publication to be very important and as such unpublished works are afforded a greater measure of protection.⁶⁵ Hence, infringement of an unpublished work weighs heavily against a finding of fair use.⁶⁶

The second distinction is between fact and fiction. The public need to have factual material disseminated is deemed to be greater and thus use of factual material will weigh toward a finding of fair use.⁶⁷

(3) **Amount and Substantiality of the Portion Used**

This factor is a quantitative and qualitative examination of the material infringed. Application of this standard has been a vague investigation of the percentage and importance of the portions copied.⁶⁸

While earlier courts generally held that copying an entire work was presumptively unfair,⁶⁹ the Sony court held that because the public had been invited to watch the entire broadcast for free, the normal presumption against fair use did not apply.⁷⁰

(4) **Effect on the Market**

This factor is "undoubtedly the single most important element of fair use."⁷¹ The Harper & Row court went so far as to

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⁶⁴. *Harper & Row*, 471 U.S. at 564. "The fact that a work is unpublished is a critical element of its "nature."" *Id.*

⁶⁵. *Id.* at 564. "[T]he author's right to control the first public appearance of his expression weighs against [infringing] prerelease of the work before its release." *Id.*

⁶⁶. *Id.* "[T]he scope of fair use is narrower with respect to unpublished works." *Id.*

⁶⁷. *Id.* at 563.

⁶⁸. *Id.* at 564-65. Thirteen percent of *The Nation* article came from the unpublished manuscript and the article was constructed around the infringing portions. In Harper & Row the court found that the words quoted were an insubstantial portion quantitatively but were "essentially the heart of the book."

⁶⁹. Leon v. Pacific Tel. & Tel. Co., 91 F.2d 484, 486 (9th Cir. 1937). "[W]holesale copying and publication of copyrighted material can [n]ever be fair use." *Id.*

⁷⁰. *Sony*, 464 U.S. at 449-50. "[T]ime-shifting merely enables a viewer to see such a work which he had been invited to witness in its entirety free of charge, the fact that the entire work is reproduced, see § 107(3), does not have its ordinary effect of mitigating against a finding of fair use." *Id.*

declare "[f]air use, when properly applied, is limited to copy­
ing by others which does not materially impair the mar­
ketability of the work which is copied." Fair use can be
negated not only by showing actual harm but by showing an
adverse affect to potential markets or to markets for deriva­
tive works. Indeed a plaintiff must only "show[] by a pre­
ponderance of the evidence that some meaningful likelihood of
future harm exists" to bar a finding of fair use.

The relevant inquiry is whether the use "supplants any part
of the normal market for a copyrighted work" or "whether it
fulfills the demand for the original?" A fair use may sup­
press demand but may not usurp it. The supplant/suppress
distinction is in effect a direct/indirect test. It is not an infringe­
ment to write a bad review which may destroy demand but it
is an infringement if a parody competes in the same market as
the original work. The rationale is that "[t]he copyright laws
are intended to prevent copiers from taking the owner's intel­
lectual property, [citation omitted], and are not aimed at rec­
ompensing damages which may flow indirectly from copying."

b. Section 117

Section 117 provides another important exception in the
area of computer programs. Section 117 allows the owner of
a copyrighted computer program to make or authorize the

72. [O]nce a copyright holder establishes with reasonable probability the exis­tence of a causal connection between the infringement and a loss of revenue, the bur­den properly shifts to the infringer to show that this damage would have occurred had there been no taking of copyrighted expression." Id. at 567 (quoting 1 Nimmer §
1.10[D], at 1-87).
73. [T]o negate fair use one need only show that if the challenged use should become widespread, it would adversely affect the potential market for the copy­
74. Harper & Row, 471 U.S. at 568 (construing, Iowa State Univ. Research
Found., Inc. v. American Broadcasting Cos., 621 F.2d 57 (2d Cir. 1980)).
75. Sony, 464 U.S. at 451 (emphasis in original). "If the intended use is for
commercial gain, that likelihood may be presumed. But if it is for a noncommercial
purpose, the likelihood must be demonstrated." Id.
76. Marcus v. Rowley, 695 F.2d 1171, 1177 (9th Cir. 1983).
77. Fisher v. Dees, 794 F.2d 432, 438 (9th Cir. 1986).
78. Mere injury is not determinative. The copy must compete, not just have the
total potential to destroy the market. Id.
79. Id.
80. Consumers Union v. General Signal Corp., 724 F.2d 1044, 1050 (2d Cir.
making of a copy or adaptation as "an essential step in the utilization of the computer program" or for archival purposes. The alienability of these copies of adaptations is restricted; copies may be sold along with a sale of the entire program, but adaptations may only be sold with the permission of the copyright holder.

Program owners may copy or adapt "as an essential step in the utilization of the computer program in conjunction with a machine." Portions of computer programs are routinely copied into memory in the course of running the program. Some courts have narrowly construed section 117, holding it only authorizes such copies. Subsequently it has been held "section 117 should be given a broader reading where the owner of a copy of a computer program adapts it for his own internal use." Among the explicitly mentioned examples of permissible adaptation is the addition of new features. This explicit recognition of the right to add features was initially accompanied by a substantial caveat, "the adaptation must be necessary to allow use of the program for the purpose for which it was purchased." This restriction was rejected by the Court of Appeals in Vault Corp. v. Quaid Software Limited.

82. 17 U.S.C. § 117(1).
84. "Any exact copies prepared in accordance with the provisions of this section may be leased, sold, or otherwise transferred, along with the copy from which such copies were prepared, only as part of the lease, sale, or other transfer of all rights in the program." 17 U.S.C. § 117.
85. "Adaptations so prepared may be transferred only with the authorization of the copyright owner." Id.
86. 17 U.S.C. § 117(1).
88. RAV Comms. v. Phillip Bros., No. 88 Civ. 3366 (S.D.N.Y. 1988) (WESTLAW 36174, 36177, Allfeds directory). In coming to this conclusion the court distinguished Apple Computer and Micro-Sparc as applying in the context of "schemes to allow unrestricted duplication of computer programs for distribution to third parties."
90. Id. at 36177.
91. 847 F.2d 255 (5th Cir. 1988). "Section 117(1) contains no language to suggest that the copy it permits must be employed for a use intended by the copyright owner, and, absent clear congressional guidance to the contrary, we refuse to read such limiting language into this exception." Id. at 261.
A lessor restriction was adopted in Foresight Resources Corp. v. Pfportmiller which dictated the right to adapt could only be used so long as the interests of the copyright holder were not harmed. Foresight reasoned a broad construction of section 117 fulfilled CONTU’s intent, followed judicial trends, and served important copyright goals.

Foresight also addressed computer program owners authorizing adaptations. The court concluded that “section 117 should not be restricted to prohibit owners from authorizing custom-made enhancements to their copies of copyrighted programs.” If computer program owner could not authorize third parties to enhance their programs then the right would be illusory for the great majority of computer user because they lack the ability to make such adaptations themselves.

The confusion surrounding distinctions between computer programs, the audiovisual works they produce, and the copyrightability of each becomes critical in the section 117 arena. Section 117’s application is limited to computer programs and thus strictly speaking does not authorize adaptation or enhancement of audiovisual works. The right to adapt the underlying computer program could once again be rendered illusory if resulting changes to the audiovisual work produced are held to be copyright infringements. This issue has not yet been directly addressed by the courts.

III. OPINION OF THE COURT

A. THE FACTS

This case considered the interaction the Nintendo Entertainment System (hereinafter “NES”), Nintendo game cartridges and the Galoob Game Genie.

93. Id. at 1009.
94. Id. (endorsing e.g., Vault Corp., 847 F.2d 255; RAV Comms., No. 88 Civ. 3366 (WESTLAW at 36177, Allfeds directory)).
95. “[A]llowing sophisticated software users to enhance copies of copyrighted programs they have purchased eliminates the need to choose between either buying the latest version of a program or possibly infringing the program’s owner’s copyright. At the same time, allowing such enhancements to be used only in-house preserves the market for improvements made by the copyright holder.” Foresight, 719 F. Supp. at 1010.
96. Id. at 1010.
97. Id. In doing so the Foresight court explicitly contradicted earlier cases holding it to be contributory infringement for a third party to adapt a computer program for the owner of the program. Id. at 1009. Such a holding would put the right to adapt computer programs beyond the grasp of the great majority of computer program owners. Id. at 1010.
98. 17 U.S.C. § 117. See also Midway, 704 F.2d at 1012.
1. **The Nintendo Entertainment System**

The NES consists of a microprocessor, defined as a semiconductor central processing unit usually contained on a single integrated circuit chip. WEBSTER'S II NEW RIVERSIDE UNIVERSITY DICTIONARY 565 (1984). In anthropomorphized terms, the brain of the computer.

The NES consists of a microprocessor based "Control Deck" which connects to a home television or monitor. The Control Deck consists essentially of a central processing unit (CPU) controlling the system's operation and a picture processing unit (PPU) which controls the display to the television.

The NES games cartridges consist of Read Only Memory chips containing the computer program and the audiovisual works. The game cartridge is plugged into the Control Deck which displays the audiovisual work on a television. Players interact with the game through the use of provided control pads or accessories such as joysticks. The cartridges contain a "program memory" which is processed through the CPU and a "character memory" which processed through the PPU.

Nintendo has produced hundreds of games for use with the NES system. Sixty-three companies are licensed to produce compatible games, another eight companies produce games without a license. In total more than 500 hundred games have been produced for use with the NES.

Games typically involve a character operating in a world in which he must overcome obstacles, fight battles, and determine the optimal route through the various levels of the world while working toward the ultimate goal of finishing the game before losing a set number of lives.

2. **The Game Genie**

The Game Genie is designed to be inserted in between a game cartridge and the NES Control Deck. The game is first
plugged into the Game Genie and then the Game Genie is plugged into the Control Deck. Galoob describes the Game Genie as a "video game enhancer." Its only function is to interact with the NES and compatible games.

The Game Genie operates in the following manner. The programming phase starts upon pushing the start button on the Control Deck with the appearance of the Game Genie set-up screen which allows the player to input up to three wishes. The player then presses the select button and the normal opening screen for the game appears and the game proceeds as modified by the Game Genie.

Galoob provides a booklet, the "Programming Manual and Code Book" containing over 1600 wishes. Each wish is accompanied by a code which is input during the programming phase in order to effect the corresponding wish. The Code Book encourages players to use these codes and to experiment to find new codes. The codes result in a variety of effects such as providing more or fewer lives, starting at advanced levels, skipping certain obstacles etc. Players can connect multiple Game Genies together and enter more codes, i.e., 2 Game Genies will accept up to 6 codes.

The Game Genie functions by intercepting requests from the CPU to the computer program and inserting a different value than the one contained in the computer program on the game cartridge or by accessing a different area of the computer program.

The Game Genie is marketed for use by consumers as an accessory to their NES. It can only be used in conjunction with the NES. It has no independent purpose, and cannot take the place of a game cartridge or make a duplicate. Any effects last only so long as power is not interrupted or play reset. The codes will not alter the plot, theme or characters of the game.

111. Galoob, No. 90-1586 & 90-1440 (WESTLAW at 149829, Allfeds directory).
112. Id.
113. Id.
114. Id. at 149830.
115. Id.
116. Id.
117. Id.
118. Id.
119. Id.
The game cartridge is not altered in any way, and may be played normally by disconnecting the Game Genie and reinserting the game cartridge into the Control Deck.\textsuperscript{120}

3. \textit{Nintendo Accessories and Publications}

Nintendo markets accessories such as the NES Advantage which alter game play in ways similar to the Game Genie.\textsuperscript{121} Nintendo also publishes Nintendo Power Magazine which provides lists of secret codes which effect modifications similar to the Game Genie's, including the ability to skip levels and gain extra lives.\textsuperscript{122}

B. \textbf{THE HOLDINGS}

The court made two substantive holdings:\textsuperscript{123} 1) Use of the Game Genie by consumers to temporarily alter copyrighted video games for their own enjoyment does not create a derivative work under Title 17 United States Code Section 101. Because the consumers are not direct infringers, Galoob is not a contributory infringer, 2) In the alternative, even if the Game Genie did create a derivative product, the doctrine of "fair use" enables consumers to use the Game Genie for their personal enjoyment, Title 17 United States Code Section 107, and therefore allows Galoob to sell it.

1. \textit{The Game Genie does not create a derivative work.}

The court first analyzed Nintendo's claim that the Game Genie creates derivative works, a right which is given exclusively to the copyright holder.\textsuperscript{124} Nintendo contended the Game Genie allowed home users to make "elaborations or other modifications, which, as a whole represent an original work of authorship."\textsuperscript{125}

\textit{Galoob} first noted that \textit{Midway} stated the derivative work definition of section 101 had to be stretched to accommodate

\textsuperscript{120.} \textit{Id.}
\textsuperscript{121.} \textit{Id.} at 149839. The NES Advantage provides slow motion play and extra fire power, making game play easier. \textit{Id.}
\textsuperscript{122.} \textit{Id.}
\textsuperscript{123.} \textit{Id.} at 149826.
\textsuperscript{124.} 17 U.S.C. § 106(2).
\textsuperscript{125.} Nintendo's Amended Memorandum of Law in Support of Its Motion For a Temporary Restraining Order and Preliminary Injunction at 10, \textit{Galoob}, No. 90-1586 & 90-1440 (N.D. Cal. 1991) (WESTLAW 149826, Allfeds directory).
speeded-up video games and then distinguished Midway as having been decided upon an equitable determination that the speed-up kit was yielding revenue to the licensee arcade owner which should have accrued to the copyright holder. In contrast, the court noted, the Game Genie is used for “non-commercial, private enjoyment.”

The court then sidestepped the issue of whether enhanced video games in general were derivative works by holding the Copyright Act and the policies behind it made “inherent in the concept of a “derivative work” [the ability for that work to exist on its own, fixed and transferable from the original work, i.e., having a separate “form.”] The Game Genie temporarily modified but did not create a fixed independent work. As a result the Game Genie did not satisfy the definition of a derivative work.

2. The Game Genie Qualifies for Protection as a Fair Use.

After supplying a background of the fair use privilege the court considered each of the section 107 factors in turn. In doing so the court considered the fairness of the family’s use of the Game Genie with their video game, not the fairness of Galoob marketing a product to enhance Nintendo games.

a. Purpose and Character

Noting a legislative and judicial reluctance to “carry copyright enforcement into the home,” and analogizing to the use

126. Midway, 704 F.2d at 1014. The court first stated it was not obvious from the language of section 101 that a speeded up video game was a derivative work, analogizing to a speeded up phonograph which it held probably was not a derivative work.

127. See Galoob, No. 90-1586 & 90-1440 (WESTLAW at 149829, Allfeds directory). “The [Midway] result appeared to be based on the equities of the situation . . . . Midway’s result, if not its analysis, appears to have turned on the fact that the licensee arcade owner, not the copyright holder, was making money from the public performance of the altered game . . . .” Id.

128. “Any modification is for the consumer’s own enjoyment in the privacy of the home.” Id. at 149832.

129. Id.

130. Id. at 149833.

131. Id. at 149833-35.

132. Id. at 149833. “Fair use is a privilege against a direct infringement claim 17 U.S.C. § 107, and is a privilege held in the first instance by the alleged direct infringer—i.e., by the person playing the video game. Just as application of the fair use doctrine in Sony resulted in substantial economic gain for Sony and other VCR manufacturers, the fair use doctrine applied to this case will benefit Galoob. Sony makes clear, however, that it is the fairness of the family’s use of its video game, not some evaluation of the commercial “fairness” of Galoob’s product, that must guide the Court’s analysis.” Id.
of VCRs to time shift television programs for home enjoyment, the court found that "a family's use of a Game Genie for private home enjoyment must be characterized as a noncommercial, nonprofit activity." The noncommercial character of the family use of the Game Genie established a presumption of fair use.

b. Nature of the Copyrighted Work

Nintendo has published millions of copies of its games and freely sells them to anyone willing to pay. The Game Genie can only be used in conjunction with one of these published copies and thus the Game Genie user must first purchase the published Nintendo game. Noting the unpublished nature of the excerpts at issue in Harper & Row had been a "critical element," the court found the published nature of the Nintendo games supported a finding of fair use.

c. Amount and Substantiality of the Portion Used

Holding the Sony decision to be dispositive the court found the incorporation of entire Nintendo games did not weigh against a finding of fair use. In Sony the viewers had been invited to watch the entire television program free of charge. The Nintendo games had to be purchased so the owner was entitled to use the entire work. "Because the game owner is entitled to use the entire work, no matter what the "amount and substantiality" of his use, the third factor cannot . . . overcom[e] the presumption of fair use."

d. Effect on the Market

Applying the suppress/supplant distinction the court found that even widespread use of the Game Genie could not supplant demand for the games because the Game Genie can only be operated in conjunction with a game cartridge.

133. Galoob, No. 90-1586 & 90-1440 (WESTLAW at 149834, Allfeds directory).
134. Id.
135. Id.
136. Id.
139. Id. at 149835.
140. Sony, 417 U.S. at 449.
141. Galoob, No. 90-1586 & 90-1440 (WESTLAW at 149835, Allfeds directory).
142. Id.
143. Id.
Nintendo failed to show any reasonable likelihood it would market slightly altered games\textsuperscript{144} or that it might wish to re-release altered versions of the game in the future.\textsuperscript{146}

Nintendo also failed to show the Game Genie would harm sales of Nintendo games.\textsuperscript{146} A consumer study of the Game Genie done in Canada, Nintendo's inability to provide empirical evidence of harm, and an expert witness led the court to conclude that if anything the use of video games would increase as a result of the Game Genie.\textsuperscript{147}

e. Summary

The noncommercial nature of the use of the Game Genie within the home creates a presumption of fair use.\textsuperscript{148} The published nature of the video game and the right of the game owner to use the entire game weigh in favor of fair use.\textsuperscript{149} Nintendo failed to show injury.\textsuperscript{150} Therefore, even if the Game Genie produces a derivative work, players would be shielded from a direct infringement claim by the doctrine of fair use, cutting off any contributory infringement claims.\textsuperscript{161}

IV. ANALYSIS

A. THE HOLDINGS

1. The Game Genie does not create a derivative work.

\textit{Galoob} significantly refines the definition of derivative word by explicitly requiring a derivative work have a separate, fixed and transferable, form.\textsuperscript{163}

\textit{Galoob} purports to distinguish Nintendo's authority by distinguishing \textit{Midway} as involving a licensee reaping profits which should have accrued to the copyright holder and thus dissimilar from a consumer using the Game Genie for private enjoyment.\textsuperscript{163} In doing so the court declined to address \textit{Worlds}
of Wonder which Nintendo cited in support of its position that the Game Genie created a derivative work.154

Worlds of Wonder cannot be distinguished in the same fashion because Veritel's cassettes altered a product to be used in the home in a fashion very similar to the Game Genie, i.e., the consumer used the cassettes for noncommercial, private enjoyment.155 Further, Veritel and Galoob can both fairly be characterized as trying to ride the coattails of another's success.

Worlds of Wonder can be distinguished because the Veritel tapes constituted a fixed, transferable work. The Veritel cassettes were a separately marketable item producing a fixed audiovisual display when inserted in the Teddy Ruxpin bear.156 The Game Genie does not produce a fixed audiovisual display, it enables the video game owner to make a plethora of modifications at their discretion.

Arguably, Worlds of Wonder was incorrectly decided. The implication of finding that any tape which could operate in the Teddy Ruxpin bear was a derivative work is that the bear itself constituted the most important part of the audiovisual work. An alternate view would be that the tape contains the audiovisual work and the bear is merely a mechanical vehicle for the presentation. This could be compared to a normal tape player and the music on the tape cassettes. Arguably Veritel created a new audiovisual work to displayed through Worlds of Wonder's vehicle.

This alternate interpretation would better serve the purpose of copyright law. Worlds of Wonder would still be able to protect its own tapes but could not prevent others from providing alternate works for public consumption. The Worlds of Wonder decision leaves open the possibility of new technologies being restricted to one company.157

156. Id.
157. Consider the inventor of a new technology such as CDs marketing a few albums and then claiming anyone else's CDs are derivative works. Such technology is more appropriately dealt with under patent law. This encourages the development of technology and promotes its exploitation once developed.
Galoob makes an appropriate and logical refinement of the definition of derivative work, furthering the purpose of copyright law. The protection afforded derivative works is provided in a construction parallel to the rights to make or distribute copies, or display or perform a work.\textsuperscript{158} Implied in each is the concept of a distinguishable work. Similarly, the examples provided in the definition\textsuperscript{159} all possess a separate form from the original work and are able to exist separately.

This linguistic approach is supported by a broader examination of the construction and purpose of copyright protection. Copyright law functions by affording the copyright holder an economic incentive in order to stimulate innovation. This is done to serve the public. The protections afforded, i.e., limited monopolies, are generally repugnant and are only afforded so long as they serve to stimulate innovation and do not overburden the dissemination of such innovation to the public.

Consider the suppress/supplant distinction of the fair use doctrine. A work which has no transferable form can never supplant demand for a product, as it cannot compete in the marketplace.

2. The Game Genie Qualifies for Protection as a Fair Use

The court's analysis of fair use was a straightforward application of the four statutory factors of section 107 as interpreted by Sony. Galoob closely follows the footsteps of Sony, refusing to extend copyright enforcement into the home.\textsuperscript{160} The arguments of fair use for the Game Genie are in several ways stronger than for the use of VCR's considered in Sony.

First, the NES and Game Genie are exclusively used in the home. VCRs are capable of public display of copyrighted works or copying for distribution, either of which would be definite copyright infringements not protected by the fair use doctrine. Sony avoided these uses by holding that VCRs were also used for time-shifting programs.\textsuperscript{161} In determining that fair use was applicable only time-shifting was considered.

\textsuperscript{158} 17 U.S.C. § 106.
\textsuperscript{159} 17 U.S.C. § 101. (for example translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation).
\textsuperscript{160} Galoob, No. 90-1586 & 90-1440 (WESTLAW at 149834, Allfeds directory).
\textsuperscript{161} Sony, 417 U.S. at 442.
Second, to use the Game Genie a published Nintendo game had to be purchased. In *Sony* the viewers had not paid to see the broadcasts. This ties into the quantity argument. Once the game was purchased the owner could use it in its entirety as they saw fit. Having purchased the copyrighted work, the game owner's rights were if anything superior to the rights of the home viewers with regard to the television broadcast.

Last, since the Game Genie must work with a game cartridge, it cannot supplant demand for game cartridges. It can only alter games, not replace them. In *Sony*, a strong argument could have been made that VCRs supplant demand. If a person can only afford to watch television two hours a day switches to watching videotapes, then demand for live broadcasting has been supplanted.

B. THE OMITTED HOLDING - § 117

Although the issue was extensively briefed, Judge Smith chose not to address the possibility that the adaptations made by the Game Genie were protected by section 117. There are two arguments for this being an appropriate decision.

First, the court held the Game Genie did not create derivative works and had then continued with the alternative fair use holding. An alternative to the alternative would have been redundant. Second is judicial restraint. Having a firmly rooted area of the law on which to base its decision, it is proper for courts to avoid reaching issues which need not be decided. Such a decision is particularly appropriate here where the authority for the fair use doctrine is the Supreme Court as contrasted with the authority for section 117 which is not completely settled and stems from lower courts.

Another facet of judicial restraint provides a contravening principle which indicates that section 117 should have been the basis of the court's opinion. Where applicable, court's should apply specific rather than general principles. Section 117 was

164. *Foresight Resources*, 719 F. Supp. at 1006; *Vault Corp.*, 847 F.2d at 255; *RAV Communications*, 1988 W.L. at 36174.
specifically tailored to limit the exclusive rights of computer program copyright holders. Since it is specifically addressed to the problems of copying and altering computer programs, and because it is the most recent legislative expression on the subject, it supersedes the more general fair use principles which would otherwise govern.

1. § 117 Makes Use of the Game Genie Non-Infringing

Assuming the Game Genie produces derivative works, game owners would be protected from a claim of direct infringement by section 117's authorization of computer program adaptations.

At the present time authorities hold section 117 should be construed broadly and have recognized the right to make adaptations includes the right to add features. While the right to make adaptations was originally restricted to adaptation necessary to enable the use of the program for the purpose it was purchased, courts no longer consider the reason behind the adaptations. Arguably the Game Genie fits even the more restrictive view because it enables less talented or experienced people to enjoy playing video games. The viewpoint to be considered is the family's. Thus the relevant purpose is family entertainment, not profit for Nintendo.

The fact that the Game Genie was created by a third party and not the game owners cannot hinder a section 117 defense. Foresight noted the right to adapt would be illusory to the great majority of consumers if they could not draw upon the talent of people capable of adapting computer programs.

The weak link in the above argument is that the chronology shows Galoob had no authorization prior to marketing the Game Genie. This argument falls to the observation that the video game player, not Galoob makes the adaptations of the game by inputting the codes, Galoob merely provides the means by which the average consumer can effectuate the changes they wish to make.

165. RAV Comms., No. 88 Civ. 3366 (WESTLAW at 36174, Alifoods directory).
166. Id. at 36177 (citing CONTU Final Report).
167. Id.
2. § 117 is Subsumed by the Fair Use Doctrine

The section 117 exceptions to the exclusive rights granted the copyright holder are subsumed by the fair use doctrine. In discussing the application of the four fair use factors to section 117, particular attention will be paid to the right to adapt granted in section 117(1). A similar examination would reach the same result with regard to the right to make archival copies granted in section 117(2).

a. Purpose and Character

Section 117 prohibits the transfer of adaptations without the authorization of the copyright owner. This forces even similarly situated persons to make their own adaptations. This eradicates any chance for the adaptations to be used in a commercial fashion, i.e., to supplant demand for the original work. The adaptations are available only to the owner of the computer program who made or authorized them. A finding of noncommercial use establishes a presumption of fair use.

b. Nature of the Copyrighted Work

This "critical element" supports a finding of fair use as well. Section 117 only authorizes the owner of a computer program to make or authorize adaptations. The fact that people other than the copyright holder own copies of the computer program indicates the work is published.

c. Amount and Substantiality of the Portion Used

For arguments sake we must assume a worst case scenario with regard to amount and presume the entire work is being used. Use of the entire work formerly carried a presumption against fair use. Sony narrowed that presumption by excluding from its ambit cases where the alleged infringer was entitled to use the entire work. The owner of a computer program is entitled to use the entire program with no presumption against fair use.

174. Leon, 91 F.2d at 486.
176. Id.
d. Effect on the Market

The relevant inquiry here is restricted to whether the adaptation will supplant demand for the copyrighted work. The user must first own a copy of the program in order to be entitled to make adaptations. The adaptations cannot be transferred without the approval of the copyright holder. The restrictions eliminate any possibility of the adaptations supplanting demand for the copyrighted work. Thus, this factor does not weigh against a finding of fair use.

V. CONCLUSIONS

Galoob is a well reasoned, correctly decided opinion which adds a significant refinement to the definition of a derivative work and follows the tradition set by the Supreme Court for the fair use doctrine. A reluctance to pursue copyright infringement in the home serves the purpose of disseminating innovation without jeopardizing the innovative incentive.

The court exercised judicial restraint by avoiding issues which were thoroughly briefed by the parties but which did not need to be addressed. Doing so avoided discussion of section 117. By following the example set by this case, section 117 need not ever be addressed by the courts because, as in this case, any adaptation covered by section 117 would be protected as a fair use under section 107.

The effect of this example is to circumvent the intention of Congress. Section 117 was enacted to govern copying and adapting computer programs. As such, it supersedes the fair use doctrine in this area and should have been given effect by the courts. While the Congressional action may have been redundant in this instance, its intent should be carried out as best possible.

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