appearance, weight, diet, and self-image. Under the reasoning of *Mirage Editions*, has Cesar created a derivative work based on the *People* cover? Under *Lee*?

c. Family Video, a Utah-based chain of video rental stores, purchases videotapes of Hollywood films from authorized distributors and then edits them to remove profanity, violence, and sexual situations. Has Family Video created unauthorized derivative works? *See Clean Flicks of Colo., LLC v. Soderbergh*, 433 F. Supp. 2d 1236 (D. Colo. 2006) (holding that edited movies are unauthorized copies but not unauthorized derivative works because the infringing copies were not used in a transformative manner).

4. One scholar has suggested that protection for derivative works should depend on the nature of the use by the secondcomer. One type of use is "consumptive," that is, it incorporates a copy of the underlying work into the derivative work. In such cases, the derivative user could argue that the copyright owner of the underlying work has already been compensated by receiving the price on the first sale of the work. Because this kind of use does not necessarily create a "new" market, the copyright owner should not be able to preclude others from using the work in this way. A second type of use is a "productive" or "public goods use." Such uses create products related to the copyrighted work, effectively exploiting a single copy of the work in a new form and creating a new market for the derivative work. In such cases, the copyright owner of the underlying work should be able to claim the lost value of the use of the work in such a manner because its price at first sale would not have compensated for the productive or public goods use. *See* Amy B. Cohen, *When Does a Work Infringe the Derivative Works Right of a Copyright Owner?*, 17 Cardozo Arts & Ent. L.J. 623 (1999).

Do you agree with this analysis? Was the use at issue in both *Mirage Editions* and *Lee* "consumptive" or "productive"? How significant to this question is the definition of the copyrighted work's market? In *Mirage* and *Lee* is the relevant market that for "works of art" or that for "decorative tiles"? What should be the appropriate factors in defining the market(s) at issue?

b. Required Form?

Mirage Editions and *Lee* reveal a disagreement about whether an infringing derivative work must satisfy the originality requirement that applies to copyrightable derivative works. We now ask the same question in the fixation context: Must an *infringing* derivative work meet the fixation requirement that applies to *copyrightable* derivative works?

The following cases also address the question of how to define what constitutes an infringing derivative work in a digital environment. Computer games are popular entertainment products and many users seek to enhance their experience when playing. This opens a market for companies who make the user's experience of a game more rewarding. However, these enhancements often modify the game in some way. Do they therefore create infringing derivative works? Who should control the market for enhancements of computer games and other digital works? Consider the following cases.

Lewis Galoob Toys, Inc. v. Nintendo of America, Inc.

***964 F.2d 965 (9th Cir. 1992)*, cert. denied, 507 U.S. 985 (1993)**

FARRIS, J.: Nintendo of America appeals the district court's judgment following a bench trial (1) declaring that Lewis Galoob Toys' Game Genie does not violate any Nintendo copyrights

and dissolving a temporary injunction and (2) denying Nintendo's request for a permanent injunction enjoining Galoob from marketing the Game Genie. . . . We affirm. . . .

The Nintendo Entertainment System is a home video game system marketed by Nintendo. To use the system, the player inserts a cartridge containing a video game that Nintendo produces or licenses others to produce. By pressing buttons and manipulating a control pad, the player controls one of the game's characters and progresses through the game. The games are protected as audiovisual works under 17 U.S.C. §102(a)(6).

The Game Genie is a device manufactured by Galoob that allows the player to alter up to three features of a Nintendo game. For example, the Game Genie can increase the number of lives of the player's character, increase the speed at which the character moves, and allow the character to float above obstacles. The player controls the changes made by the Game Genie by entering codes provided by the Game Genie Programming Manual and Code Book. The player also can experiment with variations of these codes.

The Game Genie functions by blocking the value for a single data byte sent by the game cartridge to the central processing unit in the Nintendo Entertainment System and replacing it with a new value. If that value controls the character's strength, for example, then the character can be made invincible by increasing the value sufficiently. The Game Genie is inserted between a game cartridge and the Nintendo Entertainment System. The Game Genie does not alter the data that is stored in the game cartridge. Its effects are temporary.

Discussion

1. Derivative Work

A derivative work must incorporate a protected work in some concrete or permanent "form." The Copyright Act defines a derivative work as follows:

> A "derivative work" is 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*. . . .

17 U.S.C. §101 (emphasis added). The examples of derivative works provided by the Act all physically incorporate the underlying work or works. The Act's legislative history similarly indicates that "the infringing work must incorporate a portion of the copyrighted work in some form." 1976 U.S. Code Cong. & Admin. News 5659, 5675. . . .

Our analysis is not controlled by the Copyright Act's definition of "fixed." The Act defines copies as "material objects, other than phonorecords, in which a work is *fixed* by any method." 17 U.S.C. §101 (emphasis added). The Act's definition of "derivative work," in contrast, lacks any such reference to fixation. *See id*. Further, we have held in a copyright infringement action that "[i]t makes no difference that the derivation may not satisfy certain requirements for statutory copyright registration itself." . . . A derivative work must be fixed to be *protected* under the Act, *see* 17 U.S.C. §102(a), but not to *infringe*.

The argument that a derivative work must be fixed because "[a] 'derivative work' is a work," 17 U.S.C. §101, and "[a] work is 'created' when it is fixed in a copy or phonorecord for the first time," *id*., relies on a misapplication of the Copyright Act's definition of "created":

> A work is 'created' when it is fixed in a copy or phonorecord for the first time; where a work is prepared over a period of time, the portion of it that has been fixed at any particular time constitutes

> the work as of that time, and where the work has been prepared in different versions, each version constitutes a separate work. *Id.*

The definition clarifies the *time* at which a work is *created*. If the provision were a definition of "work," it would not use that term in such a casual manner. The Act does not contain a definition of "work." Rather, it contains specific definitions: "audiovisual works," "literary works," and "pictorial, graphic and sculptural works," for example. The definition of "derivative work" does not require fixation.

The district court's finding that no independent work is created, *see Galoob*, 780 F. Supp. at 1291, is supported by the record. The Game Genie merely enhances the audiovisual displays (or underlying data bytes) that originate in Nintendo game cartridges. The altered displays do not incorporate a portion of a copyrighted work in some concrete or permanent *form*. Nintendo argues that the Game Genie's displays are as fixed in the hardware and software used to create them as Nintendo's original displays. Nintendo's argument ignores the fact that the Game Genie cannot produce an audiovisual display; the underlying display must be produced by a Nintendo Entertainment System and game cartridge. Even if we were to rely on the Copyright Act's definition of "fixed," we would similarly conclude that the resulting display is not "embodied," *see* 17 U.S.C. §101, in the Game Genie. It cannot be a derivative work. . . .

Nintendo asserted at oral argument that the existence of a $150 million market for the Game Genie indicates that its audiovisual display must be fixed. We understand Nintendo's argument; consumers clearly would not purchase the Game Genie if its display was not "sufficiently permanent or stable to permit it to be perceived . . . for a period of more than transitory duration." 17 U.S.C. §101. But, Nintendo's reliance on the Act's definition of "fixed" is misplaced. Nintendo's argument also proves too much; the existence of a market does not, and cannot, determine conclusively whether a work is an infringing derivative work. For example, although there is a market for kaleidoscopes, it does not necessarily follow that kaleidoscopes create unlawful derivative works when pointed at protected artwork. The same can be said of countless other products that enhance, but do not replace, copyrighted works.

Nintendo also argues that our analysis should focus exclusively on the audiovisual displays created by the Game Genie, i.e., that we should compare the altered displays to Nintendo's original displays. Nintendo emphasizes that " '[a]udiovisual works' are works that consist of a series of related images . . . *regardless of the nature of the material objects . . . in which the works are embodied*." 17 U.S.C. §101 (emphasis added). The Copyright Act's definition of "audiovisual works" is inapposite; the *only* question before us is whether the audiovisual displays created by the Game Genie are "derivative works." The Act does not similarly provide that a work can be a derivative work regardless of the nature of the material objects in which the work is embodied. A derivative work must incorporate a protected work in some concrete or permanent form. We cannot ignore the actual source of the Game Genie's display. . . .

In holding that the audiovisual displays created by the Game Genie are not derivative works, we recognize that technology often advances by improvement rather than replacement. Some time ago, for example, computer companies began marketing spell-checkers that operate within existing word processors by signaling the writer when a word is misspelled. These applications, as well as countless others, could not be produced and marketed if courts were to conclude that the word processor and spell-checker combination is a derivative work based on the word processor alone. The Game Genie is useless by itself, it can only enhance, and cannot duplicate or recaste [sic], a Nintendo game's output. It does not contain or produce a Nintendo game's output in some concrete or permanent form, nor does it supplant demand for Nintendo game cartridges. Such innovations rarely will constitute infringing derivative works under the Copyright Act. . . .