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Machinima and Copyright Law

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# MACHINIMA AND COPYRIGHT LAW

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I. INTRODUCTION

A video game. Two figures stand in a computer-generated landscape. They wear body armor and carry rifles. Their faces are obscured by mirrored faceplates. Normally, these figures are impassive automatons, awaiting commands from their human masters, who, by using a joystick, direct them to run, attack, or hide.

This scene would be familiar to anyone who has played a first-person perspective video game.\(^1\) In fact, this is a scene from Halo, one of the most popular video games of all time.\(^2\)

But this is not normal game play. One of the figures turns to look at the other and asks, “You ever wonder why we’re here?” “It’s one of life’s great mysteries, isn’t it?” replies the other. “Why are we here? I mean, are we the product of some cosmic coincidence, or is there really a god, watching everything, you know, with a plan for us and stuff? I dunno man, but it keeps me up at night.”\(^3\)

Welcome to machinima.

Machinima is a new kind of computer animation. Traditional computer animation is made by trained artists, who use expensive, difficult-to-use computer animation software.\(^4\) In contrast, machinima are created by regular people using ordinary video games. Machinima has it all: cinematography, actors, sets, music, and everything else that traditional animated movies have; everything but huge costs and high learning curves.

As machinima evolves and becomes more popular, the law may cause problems for machinima filmmakers. Copyright law could make it difficult or impossible to create machinima without legal repercussions. Filmmakers use video games to create machinima. Because copyright owners control the rights in those games, machinima production occurs at the copyright owners’ discretion. This means that video game copyright owners will literally hold the keys to an entire art form. Because filmmakers would be uncertain about whether copyright

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\(^1\) In a first-person-perspective game, “the player assumes the personality and point of view of the title character, who is seen on the screen only as a pair of hands and an occasional boot, much as one might see oneself in real life without the aid of a mirror.” Micro Star v. Formgen, Inc., 154 F.3d 1107, 1109, 48 U.S.P.Q.2d (BNA) 1026, 1027 (9th Cir. 1998).

\(^2\) See Associated Press, Movie to be Based on ‘Halo’ Video Game, BUFF. NEWS, Sept. 5, 2005, at C4.


\(^4\) Version Seven of Maya Complete, the premier computer animation software program, retails for $1,999.00. See Alias Online Store, http://store.alias.com (follow “Maya” hyperlink; then follow “Maya Complete 7” hyperlink) (last visited Sept. 8, 2005). Alias, the company that produces Maya, offers many training and support options. See Alias Education and Training, http://www.alias.com/eng/education/index.shtml (last visited Sept. 8, 2005).
owners would allow machinima production and would fear potential lawsuits, filmmakers would be less inclined to create machinima, and, in turn, less machinima would be created.

II. GENERAL HISTORY OF COPYRIGHT LAW

Copyright law was created in late seventeenth-century England, where a group of London merchants were granted a publishing monopoly by Parliament. In 1694, the British Parliament passed the Statute of Anne, which for the first time granted rights in published books to the authors rather than to the publishers. The Statute was meant to end the exploitation of authors, to encourage learning, and to provide an incentive for people to write new books. The Statute provided that the author of a book had the exclusive right to print or reprint that book. Also, no one could import, publish, or sell an author's books without the author's consent.

Copyright law came to the United States in the late eighteenth century. The Constitution gave Congress the 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.” In 1790, Congress enacted the first Federal Copyright Act. The Act of 1790 protected maps, charts, and books; authors of those works were given the exclusive rights to print, publish and sell them. The purpose of the Act of 1790 was to promote education. Congress amended the Act of 1790 throughout the nineteenth century by adding new rights and by protecting additional types of work. In 1909, Congress passed a second major copyright act, which added new rights and extended protection to additional media.

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6 8 Ann., c. 19 (1710) (Eng.).
7 Id.
8 Id.
9 Id.
10 U.S. CONST. art. I, § 8, cl. 8.
12 Copyright Act of 1790.
13 Id.
14 See White-Smith Music Publ'g Co. v. Apollo Co., 209 U.S. 1, 9 (1908) (stating that an “author, inventor, designer or proprietor of any book, map, chart, dramatic or musical composition” had the exclusive right to print, reprint, publish, complete, copy, and sell the copyrighted work).
Congress enacted the last major copyright act, which is the primary source of contemporary copyright law, in 1976. As amended, the Copyright Act of 1976 protects “(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; (7) sound recordings; and (8) architectural works.” The Act of 1976 grants a copyright holder the exclusive rights to reproduce the copyrighted material, create derivative works, distribute the work to the public, and to publicly perform or display the work. The Act was designed “to promote the progress of the ‘useful Arts,’ by rewarding creativity . . .”

III. OVERVIEW OF MACHINIMA

A. WHAT IS MACHINIMA?

Machinima is “shooting film in virtual reality.” Video games contain visual elements created by the designers—characters, objects, and environments—with which a player controls or interacts while playing the game. Machinima
filmmakers use these preexisting elements as their actors, props, and stages. Filmmakers control the movement and behavior of these elements while "filming" the results using recording features built into the video game. Typically, Machinima filmmakers also add a voiceover or other narrative elements.

Machinima were first created in the mid-1990s, after video game developers began to include recording features in their games. The first machinima was made in 1996 by a group of Quake players who acted out a story—using their Quake characters as the actors—and recorded the results using the built-in recording feature. Today, machinima is growing more popular and is becoming accepted by the mainstream as a legitimate form of expression.

Machinima filmmakers are using game features in ways that game designers did not intend or anticipate. Game designers expected players to use record and playback features to rewatch their gaming sessions. Designers never expected that people would use the recording features as tools to create social messages and works of art.

21 Hiawatha Bray, Game On; Inspired Animation Tools from an Uninspired Sitcom, BOSTON GLOBE, Mar. 17, 2004, at Cl.

22 Id. One author has likened the use of preexisting character models as "actors" to the use of marionettes. See Alex Pham, Straight from Video, L.A. TIMES, Oct. 11, 2005, at A1.

23 Bray, supra note 21.

24 Quake, a game released in 1996, was the first to incorporate this feature. Murray Whyte, Spielbergs uith a Joystick, TORONTO STAR, Apr. 21, 2004, at F1.

25 Bray, supra note 21.

26 The German digital film festival, bitfilm, has added Machinima as a submission category. See Bit Film Festival, http://www.bitfilm-festival.org/ (follow “Machinima” hyperlink). Machinima have been played at Lincoln Center and the American Museum of the Moving Image. Whyte, supra note 24. The History Channel used machinima, made using the video game Rome: Total War, to recreate battle scenes for its television show Decisive Battles. See Pham, supra note 22.


28 Id.

29 For example, the video game called The Sims has a photo-album feature that allows players to take a snapshot of the pictorial representation of the environment. Id. This feature was originally designed to allow the players to capture and share “important moments in their Sims’ lives,” but players soon began to use it to tell intricate stories. Id. Some filmmakers use machinima to share experiences with friends, or as memorable keepsakes; they take “photos” of their virtual world experiences and make them freely available over the Internet. BETSYBOOK, TRAVELING THROUGH CYBERSPACE: TOURISM AND PHOTOGRAPHY IN VIRTUAL WORLDS 16 (June 2003), available at http://www.ssm.com/abstract=538182. Others use machinima to convey social messages. One group of filmmakers created a voter participation public service message using footage of in-game action in the game True Crime: Streets of LA; the star “actor” is an image of Snoop Dogg, a popular musician who allowed the game producers to use his image as an in-game asset. MPEG movie: Snoop Votes (2004), available at http://www.archive.org/download (search “machinima and snoop”)
B. HOW MACHINIMA WORKS

When a person plays a video game, he sees an image on his monitor. The individual graphic elements that make up that image—for example, the figures, objects, the environment, and details of all of these things—are called art assets. The art assets are the intellectual property of the software author. A part of the video game program called the engine tells the player’s computer how the art assets should look and how they are to be arranged in relation to each other. The computer then creates an image matching this description and outputs the image to the player’s monitor. Basically, “[a] game engine is . . . a self-contained ready-made sound stage complete with its own set of lights, effects, physical laws and compliant actors, all ready to do [a machinima filmmaker’s] bidding with just a few tweaks of the game controllers.”

To make a machinima, a filmmaker simply uses the game engine to manipulate the art assets in the fashion envisioned by the game creators, records the results, and adds narrative elements.

Machinima has several advantages over traditional animation. Machinima cost less to make than animation in terms of both time and money. Shots that would require months of work and large amounts of money to produce by traditional means can be produced in machinima for very little cost in a matter of minutes. In contrast to filmmakers creating hand-drawn or computer animation, machinima filmmakers “have the ability to animate and record 3-D motion, [a] game engine is . . . a self-contained ready-made sound stage complete with its own set of lights, effects, physical laws and compliant actors, all ready to do [a machinima filmmaker’s] bidding with just a few tweaks of the game controllers.”

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character and action in real time without the need to draw every frame by hand (like 2-D animation) or render every scene frame by frame using expensive supercomputers (like computer generated imaging)."\textsuperscript{39}

\section*{C. MACHINIMA: AN INCENTIVE TO CREATE NEW WORKS}

A goal of copyright law is to benefit society by encouraging the creation of new works of literature and art.\textsuperscript{40} Using game engines to produce films is in accord with this goal. The technology encourages the creation of new animated films because it reduces the difficulty and expense of making animated films and places the means of producing high quality animated works in the hands of people who own game systems.

As technology becomes more accessible, more and more people make use of it. In the past, few people could make any sort of film outside of the film industry because production costs were very high and the labor required was arduous and time-consuming.\textsuperscript{41} Today, movie-making technologies are cheaper, easier to use, and more widely available.\textsuperscript{42} For these reasons, more people today can experiment with moviemaking.

Animation has also become more accessible. In the past, animated films were almost exclusively the product of a dedicated industry; the films were made by laboriously hand drawing each frame of the movie.\textsuperscript{43} Animated films produced in that manner often took years to produce.\textsuperscript{44} The process of making traditional computer-animated films is also labor intensive.\textsuperscript{45} But computer animation has become more accessible with the advent of consumer-friendly computer

\textsuperscript{40} See \textit{Mazer v. Stein}, 347 U.S. 201, 219, 100 U.S.P.Q. (BNA) 325, 333 (1954); see also U.S. CONST., art. I, § 8, cl. 8.
\textsuperscript{42} Super-8 film, camcorders, and digital video recorders are examples of such technologies. With the advent of digital editing systems for home computers, people have an easy and affordable method of editing films.
\textsuperscript{43} Teri Sforza, \textit{Recruit for an Art Army: Laguna Beach}, \textit{Orange County Register}, July 1, 2005, at A1.
\textsuperscript{44} For example, Disney's "Sleeping Beauty" took six years to make. Kelley Bruss, \textit{Class Inspires Animated Students}, \textit{Green Bay Press-Gazette}, Mar. 4, 2005, at 2B.
animation applications, such as Macromedia Flash. Animation makes it possible for a burgeoning animator to quickly create and publish his own two-dimensional animations.

Machinima software makes animation even easier. Game users can quickly learn the skills required to produce machinima. Controls for directing the camera, maneuvering elements of a scene, and recording the action are simple. Machinima is unlike many other forms of animation in that creation of the visual elements of the film is not required. Because the visual elements of the film are preexisting, considerable labor is saved because the filmmaker does not have to create the visual elements himself. Because machinima is so accessible, many new people will be able to experiment with creating new works of animation.

IV. TREATMENT OF MACHINIMA UNDER CURRENT LAW

Machinima filmmakers must be wary of copyright infringement lawsuits brought by the owners of rights in the games used to make their machinima.

48 Controls for these actions are the same as controls for actually playing the game. Thus, game players can quickly learn to become filmmakers.
49 See supra text accompanying note 39.
50 Nothing quite like machinima has yet come before a court. The most analogous case is probably Micro Star v. Formgen, Inc., 154 F.3d 1107, 48 U.S.P.Q.2d (BNA) 1026 (9th Cir. 1998). In Micro Star, the defendants owned the copyrights in a popular video game Duke Nukem 3D. Id. at 1109. The game included an editor that allowed players to create their own levels. Id. With the defendants’ encouragement, players used the Internet to make self-created levels available to other players. Id. The plaintiff downloaded 300 of these levels from the Internet, stamped them onto a CD, packaged the CD for sale as Nuke It, and filed suit in federal district court against the defendants, seeking a declaratory judgment that Nuke It did not infringe the defendants’ copyrights. Id. The defendants moved for a preliminary injunction; the district court granted the injunction in part and denied it in part, and rejected the plaintiff’s fair use claims. Id. Both parties appealed. Id. On appeal, the Ninth Circuit held that the defendants were likely to establish that Nuke It was a derivative work. See id. at 1110-11. The court also held that in order to prove infringement, the defendants had to be able to show that the audiovisual displays of Duke Nukem 3D and Nuke It were substantially similar. Id. at 1112. The court explained that the defendant would “doubtless succeed in making [those] showings” because the audiovisual displays generated when using Nuke It came wholly from Duke Nukem 3D. Id.

The facts of Micro Star are somewhat analogous to a hypothetical copyright infringement case brought by a video game copyright owner against a machinima filmmaker. A machinima filmmaker, like the plaintiff in Micro Star, uses a feature of the copyright owner’s video game to create a derivative work. See id. at 1110-11; infra text accompanying notes 74-80. And just as in the Micro Star
Although no video game copyright owner has sued a machinima filmmaker over the use of the owner's copyrighted material, lawsuits could occur soon. A likely reason why copyright owners have not yet brought suit is that so far, most machinima have been non-commercial. However, some machinima are now being packaged for commercial distribution making lawsuits more likely.

A. COPYRIGHT OWNERS' CASE FOR INFRINGEMENT

To win a copyright infringement lawsuit against a machinima filmmaker, the copyright holder must establish (1) ownership of the copyright, (2) copyright validity, and (3) that one or more of the exclusive rights in that copyright have been infringed upon by the filmmaker.

First, the plaintiff must prove that he owns the rights in question. This will likely not be difficult, as game publishers usually control the intellectual property rights to their video games.

Second, the plaintiff must establish that his copyright is valid. Copyrights are presumed valid in any action if a certificate of registration of the work is filed with the Copyright Office. Even if
the owner did not register the game, the owner could easily establish validity in court because all the elements required for a valid copyright exist.

The first requirement for validity is fixation. Works must be fixed in a tangible form from which they can later be “perceived, reproduced, or otherwise communicated.” A video game will be fixed in one of several available forms, and can be communicated in several different ways.

The second requirement for a valid copyright is originality. To satisfy this requirement, a work need only be “independently created by the author (as opposed to copied from other works) . . . and . . . possess at least some minimal degree of creativity.” Video games will almost always satisfy the originality requirement.

A defendant could argue that, in general, games (such as board games) are not copyrightable; however, video games are usually copyrightable. Even if a court did decide that video games in general were not copyrightable, the plaintiff would have a strong argument that the game’s art assets are copyrightable as pictorial or graphic works. However, the defendant would have a good counter-argument: because the art assets in many games are rather generic, the art assets are scenes a
MACHINIMA AND COPYRIGHT LAW

faitre and therefore not copyrightable. But ultimately, even if the scenes a faitre doctrine made the individual art assets non-copyrightable, they would likely be copyrightable as a compilation. Compilations are copyrightable because even if the individual art assets are generic, the game's designers still select and arrange those assets in unique ways.

After the plaintiff establishes that he owns a valid copyright in the video game, he must show that the defendant infringed that copyright. To do so, the plaintiff must show that defendant exercised one or more of the plaintiff's exclusive rights without the plaintiff's permission.

Copyright owners have the exclusive right to reproduce their work in copies. Machinima filmmakers violate this right when they make a machinima, because in doing so, they fix the game's art assets in some form. Even if the filmmaker only used a small part of the game to make the film, courts may still find infringement. Courts have held that even screenshots—single frames of game footage—violate the reproduction right. If a single screenshot can violate the right, then a machinima—which is essentially a series of screenshots—definitely violates the exclusive right to fix the work in a tangible medium as well.

Copyright owners also have the exclusive right to prepare "derivative works," which are works based on the original work. Machinima infringe this right in several ways. First, a machinima film is based on the underlying video game, without which it could not exist. Second, an "abridgement" of an original work is expressly listed in the Act of 1976 as a type of derivative work, and machinima makers abridge video games in making their movies, since only part of the game is used to make the machinima. Another type of derivative work expressly listed in the statute is the elaboration, and a machinima is definitely an elaboration on

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67 Cf. Atari, 672 F.2d 607. See also BOOK, supra note 29.
70 JOYCE ET AL., supra note 5, at 667. There are five exclusive rights that a machinima filmmaker may infringe. See 17 U.S.C. § 106. The defendant can infringe on plaintiff's rights directly, or through contributory or vicarious infringement. See 3 NIMMER & NIMMER, supra note 59, § 12.04(A)(1), (2).
72 See id. To keep a copy of his work, the machinima filmmaker must fix it in some fashion; for example, by saving it on a hard drive. If the filmmaker makes his work available to a wider audience, he must store his work in a way that allows the audience to perceive it.
73 See Micro Star v. FormGen, Inc., 154 F.3d 1107, 1114, 48 U.S.P.Q.2d (BNA) 1026, 1031 (9th Cir. 1998).
74 PAUL GOLDBEIN, COPYRIGHT § 5.3.1 (2d ed. 1996).
the original video game. Fourth, commentators have suggested that a transformation is a derivative work if it creates a "new work for a different market." Commentators disagree about whether machinima filmmakers are appealing to a new market. Fifth, courts have held that compiling and organizing clips of a movie to make a movie preview constitutes a derivative work. This is essentially what machinima filmmakers are doing: they are selecting portions of the plaintiff's work and organizing and reproducing it in their own way, with additional elements and additional meanings. Finally, some courts consider a work to be derivative if it simply contains a substantial amount of the pre-existing work. Most machinima films contain large amounts of the environments and art assets from the original games.

Copyright owners also have the exclusive right to publicly distribute copies of their copyrighted works. The machinima filmmakers infringe on this right when they distribute the art assets of the game that are included in their films. Distribution to a select group may not violate the right, but machinima filmmakers usually make their films accessible to the public as a whole by posting the films on the internet.

Copyright owners also have the exclusive right to perform their works publicly—in this context, that means "showing images from the game] in any sequence." With machinima, the performance takes place when users download

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76 Id. Machinima are elaborations because machinima filmmakers always add some amount of original material, such as arrangement of art assets, narrative, dialogue, and music, to the plaintiff's game.

77 Id.

78 Compare Kyle Ackerman, 2003 Machinima Film Festival, http://www.frictionlessinsight.com/Articles/Machinima2003/Festival/Festival.htm (suggesting that gamers are the main audience for machinima), with Pham, supra note 22 (explaining that machinima appeal "to both movie buffs and computer game enthusiasts").


81 The scope of this right is limited by the first sale doctrine, which "allows the holder of a particular copy of a work to sell or otherwise dispose of that copy (other than a computer program if the transaction is for commercial gain), but he cannot make a copy of that copy." Warren E. Agin & Scott N. Kumis, A Framework for Understanding Electronic Information Transactions, 15 ALB. L.J. SCI. & TECH. 277, 324 (2005) (citing 17 U.S.C. § 109(a) (2000)).

82 2 NIMMER & NIMMER, supra note 59, § 8.11[A].


and view the machinima on their home computer. But filmmakers might be liable for contributory infringement of this right if others show their films in a public place. And public screenings of machinima are becoming more popular.

Copyright owners also have the exclusive right to display their work publicly. This is not a right that machinima makers will normally infringe upon, because “to display” in this context means to show a single frame or still images from the work. But filmmakers might infringe this right if they advertise their films using imagery that incorporates the art assets.

In sum, copyright owners would likely have valid copyright infringement cases against machinima filmmakers. The owner almost surely has a valid copyright, and the filmmaker violates many of the owner’s exclusive rights when he creates and distributes his film.

B. THE FAIR USE DEFENSE

The next issue is whether the primary defense to copyright infringement, “fair use,” would be available to the filmmaker. Whether a use is fair depends almost wholly on the circumstances. The Act of 1976 sets forth four factors for courts to consider in determining whether a defendant’s use is “fair use.”

The first factor is “[t]he purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes.” This factor will almost certainly cut in favor of the defendant.

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85 This is analogous to the “playing” of a movie, which is a performance. See Allen v. Academic Games League of Am. Inc., 89 F.3d 614, 616, 39 U.S.P.Q.2d (BNA) 1470, 1472-73 (9th Cir. 1996).
87 See, e.g., Pham, supra note 22.
89 See 2 NIMMER & NIMMER, supra note 59, § 8.20[A].
90 See Red vs. Blue Store, supra note 52. The machinima film is packaged in a container displaying a picture of unaltered art assets from the game. Id.
91 17 U.S.C. § 107; 4 NIMMER & NIMMER, supra note 59, § 13.05. Fair use is “a privilege in others than the owner of a copyright to use the copyrighted material in a reasonable manner without his consent, notwithstanding the monopoly granted to the owner of the copyright.” H. BALL, THE LAW OF COPYRIGHT AND LITERARY PROPERTY 260 (1944). The reason for the fair use defense is that “courts...must occasionally subordinate the copyright holder’s interest in a maximum financial return to the greater public interest in the development of art, science and industry.” JOYCE ET AL., supra note 5, at 844.
92 4 NIMMER & NIMMER, supra note 59, § 13.05.
If an infringing use is transformative—in other words, if it adds new material to the original work and gives it a "further purpose or different character, altering the [original] with new expression, meaning, or message"—this factor will cut in favor of a defendant, because transformative works are in accord with the goals of copyright law. Machinima are very transformative. They add new material to the original work, such as plot and dialogue, and give the work a different purpose—turning it from a game into a movie. Accordingly, this factor will cut in favor of the defendant.

But if the machinima filmmaker uses the copyright owner's material for a commercial purpose, this factor will cut in favor of the copyright owner. Although most machinima are non-commercial and are freely available to the public, some filmmakers are beginning to sell their work. And because copyright infringement actions will likely be brought only when the machinima is being used for a commercial purpose, this factor would probably cut against a filmmaker.

The second factor is "the nature of the copyrighted work." Some works are closer to the "core of intended copyright protection" than others. Whether this factor cuts in favor of the owner or the filmmaker depends mostly on whether the portion of the copyright owner's work that was used by the filmmaker is more factual or more fictional. This factor will normally cut against the filmmaker, because the filmmaker usually appropriates the more subjective, expressive aspects of the owner's work—the art assets.

The third factor is "the amount and substantiality of the portion used in relation to the copyrighted work as a whole." In this context, courts would first consider how many of the original art assets were taken and how important those assets are to the original game. Courts would then consider what amount of the machinima is comprised of borrowed material and how important that material is to the machinima as a whole. If the machinima is made up mostly of the plaintiff's copyright material, without much change or adding of new material, this factor will cut against the filmmaker, and it is likely to do so in this context.

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95 Campbell, 510 U.S. at 578.
96 Id. at 579.
98 See Red vs. Blue Store, supra note 52.
99 17 U.S.C. § 107(2); Campbell, 510 U.S. at 586 (citation omitted).
100 Campbell, 510 U.S. at 586.
101 Id.
104 See id.
is true that the filmmaker adds original content to the plaintiff's work by adding elements, such as sounds, dialogue, and plot; by altering existing elements, such as the appearance of art assets; and by selecting and arranging the existing art assets in new ways. But in large part, a machinima is completely comprised of and dependent on the owner's art assets and game engine. Without these elements, the filmmaker could not make machinima at all. Therefore, this factor is likely to cut against fair use.

The fourth factor is "the effect of the use upon the potential market for or value of the copyrighted work." If an owner shows that widespread use of a machinima could be detrimental to the potential market for the owner's video game, this factor cuts in favor of the plaintiff. Courts will also examine the potential harm to the market for derivative works.

This factor could cut either way. On one hand, widespread distribution of a well-made machinima could increase demand for the original game. A machinima could even serve to advertise the game to new audiences—animation fans, or even potential filmmakers. However, if a machinima is poorly made and shows the audiovisual qualities of the game in a negative way, potential game buyers might decide not to buy the game. In this way, the machinima could be detrimental to the game's market. Also, copyright owners might want to produce and market their own machinima. In that case, the defendant's work would directly compete for a share of the same market as the plaintiff's and would cut against the filmmaker.

If the fair-use defense did not succeed, the filmmaker would likely lose the lawsuit and would be liable to the filmmaker for copyright infringement. Potential legal liability will strongly discourage people from marketing—or even attempting to make—their own machinima.

(1994).

At one time, this was considered the most important factor in determining whether the fair use defense should succeed. Harper & Row, 471 U.S. at 566. But today, the prevailing view is that all of the factors should be accorded equal weight. See Campbell, 510 U.S. 569, 578 (noting that courts should examine all four factors and weigh the results together); 4 Nimmer & Nimmer, supra note 59, § 13.05(A).

It is not necessary to prove use is currently, or likely to be, widespread. The mere possibility is enough. See Sony Corp. v. Universal City Studios, Inc., 464 U.S. 417, 451, 220 U.S.P.Q. (BNA) 665, 682 (1984).

Harper & Row, 471 U.S. at 568.

For example, the animated movie FINAL FANTASY VII: ADVENT CHILDREN was based on the video game Final Fantasy VII. See Advent Children.net, http://www.adventchildren.net/ff7ac/movie/about.php (last visited Sept. 11, 2005).
V. POSSIBLE SOLUTION: VIRTUAL WORLDS AS ARCHITECTURAL WORKS

Under the original terms of the Act of 1976, architect’s plans or drawings were copyrightable, but buildings were not. That changed in 1990, when Congress enacted the Architectural Works Copyright Protection Act (AWCPA). The AWCPA added a new enumerated category of copyrightable subject matter to the '76 Act: architectural works. These are defined as “the design of a building as embodied in any tangible medium of expression, including a building, architectural plans, or drawings. The work includes the overall form as well as the arrangement and composition of spaces and elements in the design, but does not include individual standard features.”

Congress built a limitation on the copyrightability of architectural works into the AWCPA: pictorial representations of buildings do not infringe on the building’s copyright. This means that a building’s copyright holder cannot prevent others from making, distributing, or displaying representations (such as drawings or movies) of the building. The limitation only applies to buildings visible from public places. Congress included this limitation in the AWCPA for several reasons. Without it, tourist photos would be infringing, and architectural education (as well as other scholastic pursuits) would be more difficult. Also, pictorial representations of a building usually do not disadvantage the building’s copyright owner.

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110 See 1 NIMMER & NIMMER, supra note 59, § 2.08(d)(2)(a) n.164.1. This was because buildings were considered to be both “sculptures” and “useful articles” under 17 U.S.C. § 101, and anything that fit into both of these categories was not copyrightable under the Act of 1976 as enacted. See id. § 2.08(d)(2)(b).

111 In the 1980s, the United States wanted to join the Berne Convention, an international copyright treaty, to better protect U.S. copyrighted works in other countries. Patty Gerstenblith, Architect as Artist: Artists’ Rights and Historic Preservation, 12 CARDOZO ARTS & ENT. L.J. 431, 444 (1994). In order to comply with the treaty, the United States needed to give copyright protection to buildings. The copyright office examined protection of architectural works and concluded that protection for architectural works needed to be strengthened in order to comply with the Berne Convention. See Todd Hixon, Note, The Architectural Works Copyright Protection Act of 1990: At Odds with the Traditional Limitations of American Copyright Law, 37 ARIZ. L. REV. 629, 635-36 (1995).


115 Id.

116 Id.

117 1 NIMMER & NIMMER, supra note 59, § 2.20[C].


119 Id.
The action in the video games with which machinima are created takes place in "virtual worlds," which are virtual three-dimensional (3D) environments. These spatial representations are inhabited by avatars—virtual proxies that are controlled by those who play the game. Could virtual worlds be construed as "architectural works"? If they were, the exemption for pictorial representations would apply, and a copyright infringement action against a machinima filmmaker could not succeed.

Virtual worlds can be analogized to architectural plans, architectural drawings, or even actual buildings. The defining characteristic of both real-world buildings and virtual worlds is that they are meant to be occupied by people. Another factor supporting the categorization of virtual worlds as a type of architectural work is the fact that Congress meant to define the term "building" broadly. An examination of regulations relating to registration of architectural works further demonstrates how virtual worlds are similar to other types of architectural works. Both buildings and virtual worlds are designed to be permanent, stationary, and humanly habitable. Although people do not literally live within virtual worlds, their characters do, and some people admit to spending many hours of their lives living in virtual worlds. Buildings and virtual worlds are similar in that both are manmade, and both are defined by their boundaries and their structural elements.

Virtual worlds are distinguishable from structures that have been declared not to be protectable as architectural works. The applicable regulations provide examples of "structures other than buildings, such as bridges, cloverleafs, dams, walkways, tents, recreational vehicles, mobile homes, and boats," as works that cannot be protected as architectural works. Virtual worlds are not like these examples. Virtual worlds are not meant to be temporary, mobile, non-habitable, or primarily a means or infrastructure of transportation. One of the defining

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121 Id. at 6.
122 In virtual worlds, the environment is occupied by "avatars"—virtual people. Id.
123 In contrast to the legislative history, the final wording of the statute does not expressly define the term. Vanessa N. Scaglione, Note, Building Upon the Architectural Works Protection Copyright Act of 1990, 61 FORDHAM L. REV. 193, 199 (1992). Congress could easily have included language to limit the meaning of "building."
125 Id. § 202.11(b)(2); Lastowka, supra note 120, at 5-6.
127 37 C.F.R. § 202.11(d)(1).
characteristics of a virtual world is that it is meant to be a permanent habitat for its inhabitants. Virtual worlds are permanently lived in by their residents—avatars—and they are meant to exist for long periods of time.\textsuperscript{128}

There are some obstacles to successfully analogizing virtual worlds to architectural works. Some commentators have suggested that several types of structures—technical structures that exist primarily to solve engineering problems (because these have little to do with creativity) and “works such as gardens and parks which represent primarily spatial organizations rather than enclosed structures”—do not deserve copyright protection.\textsuperscript{129} Virtual worlds could fit into either of these categories: they could be seen as technical structures, because their purpose is to let people interact and exist in a virtual environment, or spatial organizations, because their purpose is to organize different art assets in relation to each other. But other commentators believe that protection should be extended to these types of structures.\textsuperscript{130} Another obstacle to the analogy is that because virtual worlds can be rather generic, they might be construed as “standard building features” rather than as original architectural works. Because standard features are not copyrightable, the worlds would not receive copyright protection.\textsuperscript{131}

As noted above, if virtual worlds were successfully analogized to architectural works, filmmakers would have a good defense to copyright infringement liability: the exemption for pictorial representations of architectural works.\textsuperscript{132} In \textit{Leicester v. Warner Bros.}, the plaintiff, an artist, had created a sculptural work that was partially incorporated into the design and structure of a building.\textsuperscript{133} The defendants, who were filmmakers, made a movie, and the sculpture was visible in one of the scenes.\textsuperscript{134} The artist sued for copyright infringement.\textsuperscript{135} The court found for the filmmakers, holding that the exemption for pictorial representations of architectural works applied because, for purposes of copyright, the sculptural work was part of the building.\textsuperscript{136}

\textsuperscript{128} \textit{The Sims Online}, like all virtual worlds, is both persistent and dynamic. Even when you are not in Blazing Falls, the environment continues to exist and changes over time.” Lastowka, \textit{supra} note 120, at 5-6.

\textsuperscript{129} Gerstenblith, \textit{supra} note 111, at 447 & n.84.

\textsuperscript{130} Id.

\textsuperscript{131} 37 C.F.R. \textsuperscript{\textcircled{d}} 202.11(d)(2).

\textsuperscript{132} 17 U.S.C. \textsuperscript{\textcircled{a}} 120(a) (2000).

\textsuperscript{133} \textit{Leicester v. Warner Bros.}, 232 F.3d 1212, 1214-15, 57 U.S.P.Q.2d (BNA) 1001, 1002-04 (9th Cir. 2000).

\textsuperscript{134} Id. at 1215.

\textsuperscript{135} Id.

\textsuperscript{136} Id. at 1213.
If virtual worlds were construed as architectural works, a copyright infringement suit against a machinima filmmaker would fail for the same reason. Both situations deal with a film including the plaintiff's art (a sculpture in Leicester, and art assets in the machinima context). And in both situations, the art is part of an architectural work (the building in Leicester, and the virtual world in the machinima context). 137

Extension of the exemption to machinima is in accord with the policy underlying the exemption. Congress emphasized the primary reasons for allowing the pictorial representation exemption were tourist activity, allowing people to record their memories, and the lack of detriment to the copyright holder. 138 These reasons apply to machinima created in virtual environments just as they apply to representations created in the real world. 139

VI. CONCLUSION

Machinima is an emerging new medium of artistic expression that allows creators to produce works of 3D animation more quickly and cheaply than ever before. Because machinima makes it easier to create 3D animations, more people will experiment with making them. This is in accord with the goals of copyright law.

But the current state of the law could seriously impede machinima production. First, software owners control all of the rights in their games. They control the tools and other aspects of the games that machinima creators use to produce their works.

137 The same factors that led the court to decide that the plaintiff's sculpture was part of a building in the Leicester case would favor a machinima filmmaker. The court considered (1) whether the plaintiff's art was an integral part of the building as a whole, (2) whether the art was integrated with other design elements that were part of the building as a whole, and (3) whether the art served a functional purpose. See 1 NIMMER & NIMMER, supra note 59, § 2.20[C] (discussing factors that the Leicester court considered in its reasoning); Leicester, 232 F.3d at 1218 ("[S]tructure serves the functional purpose . . ."). In a machinima, the art assets are part of the environment as a whole and are designed to appear that way. See 1 NIMMER & NIMMER, supra note 59, § 2.20[C] (discussing factors that the Leicester court considered in its reasoning). Many of the art assets serve a functional purpose in the game—such as identifying places or characters or props—much like the street wall did in Leicester.


139 For example, virtual worlds are much like tourist destinations in the real world. Just as tourists leave their homes to "get away from it all," virtual worlds are a "vacation" away from boredom and responsibility in the real world. Virtual worlds even include some of the tradition trappings of vacation destinations, such as tourist information booths. BOOK, supra note 29, at 4. Virtual travelers are able to create screen captures, which are digital images that capture the appearance of their computer screen. Id. at 16. Users take the pictures to share experiences and travels with friends, or for their own memories. They sometimes share these pictures with others online. Users post screen caps like tourists do—with their avatar in front of a landmark. Id.
films, and they could sue machinima filmmakers for copyright infringement and force them to stop making or distributing their films. The threat of litigation is a disincentive to machinima filmmakers to produce new works. This is against the goals of copyright law.

The copyright law has been continuously updated since its inception to provide protection for new forms of expression, always in keeping with its primary goal of promoting the creation of new works for public benefit. Clearly machinima deserves some kind of protection from copyright infringement lawsuits. Construing virtual worlds as an architectural work, so that machinima would be protected from copyright infringement by the pictorial representation exemption in the AWCPA, might solve this problem.

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