

A BAD DREAM: IN SEARCH OF A LEGAL FRAMEWORK FOR COPYRIGHT INFRINGEMENT CLAIMS INVOLVING DIGITAL IMAGERY IN MOTION PICTURES

Judith A. Silver [n.a]

I. INTRODUCTION

The theme of a motion picture might be altered to achieve whatever politically correct or economically driven objective its owners wish to impose. . . . I see a future of indifferent copyright-owning corporations with unlimited power to tamper continually with filmed dramatic works as if they were revising an acceptance speech - not by Orwell's Big Brother, but by a legion of Little Brothers, all with no regard for the original contributors, and changing what they like to refer to as 'product.' [n.1]

This statement by director George Lucas sums up the legal uncertainties facing the movie industry as computers become more and more prevalent tools of film-making. In Lucas' bad dream, films are products, bought and sold and manipulated for profit, without regard for creativity or original artistry. It is the fear of Lucas and many in the industry that technological developments will so greatly ease the ability of others to alter, communicate and copy their work, that their authorship will be lost under the current copyright system. Because there is no case law and no specific provision in the Copyright Act to address copying and altering of digital images in motion pictures, the legal analysis remains unknown.

This Article will identify the legal framework for copyright issues which arise from the use of computers in film-making, from the perspective of the studio. First, this Article will explain how and why a studio would use computers in motion picture production. Second, the author will provide *408 an overview of copyright issues stemming from a studio's acquisition of digitized images for use in motion picture effects. Third, this Article will focus on the difficulties a studio faces in trying to protect digitized films and their images from copyright infringement. Finally, the author will suggest a possible solution to these issues.

A. Introduction to Computer Use in Motion Pictures

For practical reasons, the entertainment industry increasingly uses computers in film-making. Through the use of computers, a studio can greatly save costs, time, travel and effort necessary for shooting each scene on location, for constructing detailed sets and for hiring large numbers of extras. Quickly and relatively easily, computers allow scenes to be pieced together, worked and reworked without the cumbersome use of actual locations, sets or persons. [n.2]

More importantly, the use of computers reduces dangerous film-making risks for talent and crew. Stunts and accidents often present dangerous situations on film sets: a recent article on the filming of Jim Jarmusch's movie, *Night on Earth*, [n.3] noted sardonically, "All right, so there were a few glitches. Like the night the cinematographer almost got dumped into the East River. Or the time four actors trapped in a taxi got stranded on trolley tracks in Finland, with trains coming from both directions." [n.4] During a different incident, the young actor Brandon Lee was tragically killed in an accidental shooting on the North Carolina set of *The Crow* [n.5] when another actor shot him with what was thought to be a blank. [n.6] Considering the dangers on movie sets, studios now use computers whenever possible to minimize risks and costs. [n.7] Technology allows actors to be filmed for dangerous scenes in front of a blue screen and then the death-defying background is added later by computer. [n.8] This protects actors, and reduces insurance and contract costs of such scenes to film-makers.

Finally, film-makers use computers to increase the scope of creative expression. Writers, directors and cinematographers have traditionally been confined by the practical realities of image creation: human, set and cost restrictions. With new technology and its cost savings compared to traditional film-making, seemingly only a creator's mind sets the limits. [n.9] In the near future, traditional filming may not even exist: film will be immediately converted to digital form after shooting, or shot using filmless cameras which transmit images back to a main computer via modem-like technology, and then post-production work, including special effects, will be done entirely on computers. [n.10]

B. The Relationship between Copyright and Technology

The United States Constitution stated the foundation for copyright law in Article 1, Section 8 which authorizes Congress to "promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writing and discoveries." [n.11] The Supreme Court has noted that the purpose of copyright is to grant financial gains for invention, to "motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired." [n.12] From its origin, copyright has developed in response to technology, beginning with the problems that invention of the printing press introduced. [n.13] Copyright law continued to expand by encompassing the inventions of motion pictures, radio, television, audio and video recording equipment, photocopiers and computers. [n.14]

In 1976, Congress created the National Commission on New Technological Uses of Copyrighted Works (CONTU) to address the *410 copyright issues presented by the growing use of the photocopier and computer. [n.15] While CONTU made suggestions regarding issues of pressing interest in 1976, the Commission made few recommendations regarding future problems, despite the fact that they knew that computer animation and music were developing. [n.16] It is unfortunate that Congress did not better anticipate future technological problems and enact legal solutions. [n.17] Since the courts consistently defer to Congress when technological innovations affect copyright, [n.18] legal issues arising because of new technology fail to be recognized by the judicial system until years after their creation. [n.19] This lack of legislative planning and judicial recognition leads to arbitrary and inequitable results, [n.20] and the inability to tailor industry contracts and behavior around a predictable judicial outcome.

Now, as in the past, technology is racing blindly ahead of copyright law. The prevalent use of computers in film-making through digital imagery presents challenging copyright issues that must be addressed so that the entertainment and computer industries, other businesses and the general public will be clearly aware of the legal consequences of copying, creating and manipulating images electronically.

II. COPYRIGHT OWNERSHIP OF DIGITIZED IMAGES USED IN MOTION PICTURES

For the purpose of examining the copyright implications of the use of computers in motion pictures, imagine that a hypothetical studio, Big Picture, is working on the latest hot property in Hollywood, a hypothetical film called One of a Kind. Big Picture is aware of the practical reasons to have computer- created scenes and also knows that audiences are more likely to see films with fancy effects. Recently, Big Picture has become concerned because competitor studios have built their own in-house special effects units, [n.21] but still feels the costs of such an endeavor would be too high, and has decided to enlist the help of an outside special effects company, Effective, to construct scenes for One of a Kind. Naturally, Big Picture wants to fully understand the copyright implications of such an arrangement before formally bringing Effective into the production of One of a Kind. For *411 example, who owns the copyright to the images Effective creates for Big Picture?

The work for hire doctrine typically governs copyright ownership in motion pictures. The doctrine, codified in Section 201 of the Copyright Act, is as follows:

In the case of a work made for hire, the employer or other person for whom the work was prepared is considered the author [owner] for purposes of this title, and, unless the parties have expressly agreed otherwise in a written instrument signed by them, owns all of the rights comprised in the copyright. [n.22]

In nearly every case, the directors, screenplay writers, cinematographers and others assign all rights to the producer, distributor or studio in exchange for compensation, [n.23] and thus, are considered "employees" of the "employer" studio under copyright

law. There has been substantial attention to the desire of directors and others in the industry to retain copyright control over some aspects of motion pictures so as to preserve the artistic integrity of the film, but this position has not prevailed in the United States. [n.24]

In some circumstances, a party who contributed to a film may not be an "employee," but instead may be commissioned or may be an independent contractor. According to the Copyright Act, a commissioned work for a motion picture may be considered a work made for hire if the parties expressly agree in a written instrument. [n.25] Additionally, the Supreme Court has set forth that in order to determine whether a party is an "employee" under the Copyright Act, common law principles of agency apply. [n.26] Thus, *412 the Court considers:

the hiring party's right to control the manner and means by which the product is accomplished . . . the skill required . . . the source of the instrumentalities and tools; the location of the work; the duration of the relationship between the parties; whether the hiring party has the right to assign additional projects to the hired party; the extent of the hired party's discretion over when and how long to work; the method of payment; the hired party's role in hiring and paying assistants; whether the work is part of the regular business of the hiring party; whether the hiring party is in business; the provision of employee benefits; and the tax treatment of the hired party. [n.27]

However, the Copyright Act indicates that contributors to a motion picture generally give up their rights of ownership, [n.28] and because of the prevalence of the work for hire doctrine in the motion picture industry, it would be unlikely for a court to recognize independent contractor or commissioned work status unless explicitly stated in writing. [n.29]

Big Picture feels reassured by this information on the work for hire doctrine that it will own the copyright to Effective's work and gives the greenlight for production of One of a Kind. Effective begins work on scenes using the company's computer facilities. Effective knows that while Big Picture's main concern is protecting the images it will own in One of a Kind, it also wants to legally obtain images for use in creation of scenes in One of a Kind.

III. OVERVIEW OF COPYRIGHT ISSUES ARISING FROM OBTAINING AND ALTERING DIGITIZED IMAGES FOR USE IN MOTION PICTURE

There are currently several ways in which creators like Effective can use computers to construct scenes and images in a film. These methods involve the digitizing of images: breaking down a two-dimensional picture or three-dimensional object and translating it into numbers which are read by a computer and arranged as an image. [n.30] Visual effects are accomplished by combining and rearranging the numbers and images; "to create an image, we have to create a marriage of images." [n.31] There are numerous means of obtaining images, but this Article will identify copyright issues created *413 by the scanning of three-dimensional objects, the use of two-dimensional images and

photographs, the use of past film scenes and images, and the use of computer-created images.

Effective might create a scene by translating a three-dimensional object into an image on a computer screen, which can be manipulated and altered in a scene. Alternatively, Effective can scan the object with a laser and its numerical equivalent will be created in the computer. [n.32] Such techniques were used to create the "pseudopod 's " facial mirroring of actors in *The Abyss* and *Terminator 2*. [n.33]

Such scanning of three-dimensional objects should rarely present copyright problems for film-makers. The Copyright Act protects objects in form, but not in utilitarian or mechanical aspects: "Unless the shape of an automobile, airplane, ladies' dress, food processor, television set, or any other industrial product contains some element that, physically or conceptually, can be identified as separable from the utilitarian aspects of that article, the design would not be copyrighted" [n.34] Since courts have generally allowed copyright protection only for objects with significant uniqueness and artistic design, laser scanning should not present copyright problems in most cases. [n.35]

Another way that Effective might create scenes for *One of a Kind* is through use of digitized photographs. [n.36] A good example of incorporation of *414 a photograph into a film is the following description of the blue screen technique used to create a scene from *Memoirs of an Invisible Man* [n.37]:

Through a photographic color-separation technique in which blue objects can be extracted [the blue screen technique], [Chevy] Chase's upper body was removed from the scene on a computer. Then, using a process called digital imagery, an artist converted a still photograph of the pants into a computer image. This allowed the artist to manipulate the photograph of the pants on the screen. In the scene showing the running pants, the artist positioned and edited the inside waistband from the still photograph until it matched the filmed pants, frame for frame. When the waistband look natural in the various phases, it was electronically pasted into the moving pants. [n.38]

The use of blue screening and similar techniques can save the costly efforts of travel to locations to film a place, person or object, and of hiring extras or constructing sets. [n.39] Why would Big Picture send a film crew or photographer to each setting (say the pyramids in Egypt, Big Ben in London, the Empire State Building in New York) when the company could simply have Effective obtain photographs of these locations and digitize them? In our scenario for production of *One of a Kind*, Big Picture wants to be sure to avoid any later copyright infringement claims, so it has either hired its own photographer to get the shots or obtained permission from the owners of photographs of these locations to use them in the film. However, in real film production, with the incredible time and cost pressures that studios and production companies face, digitizing photographs without copyright permission will almost certainly occur. Ironically, a photographer whose photo has been digitized and incorporated into a film scene will have the same copyright problems, discussed below, [n.40] that Big Picture will have regarding scenes and images in *One of a Kind*. These problems include preventing scenes and images from being stolen, recognizing that the image has been appropriated without

permission, and *415 showing the "access" and "substantial similarity" elements necessary for a copyright infringement claim.

Another way in which scenes and images may be incorporated via computer is through use of film that has been digitized. To accomplish this, Effective would first have the crew shoot some scenes for *One of a Kind*. Effective could then digitize those scenes, and manipulate and multiply those images to create new scenes and images for use throughout the film. [n.41]

Manipulating images from past films and using them in current movies and other mediums, sometimes in new and vastly different contexts, is also becoming an increasingly popular effects technique. [n.42] As Forbes recently noted, " Studio bosses have suddenly realized that once an image is digitized and saved on a computer disk or tape, it can be used and reused forever in almost unlimited ways . . . t his fact was not lost on Sony when it bought Columbia Pictures or on Matsushita when it bought Universal." [n.43]

As technological inventions expand, the creation of, access to and use of motion picture "image banks" is sure to increase. [n.44] Motion picture image banks may involve vast data bases of digitized films, scenes and images, that can be easily transferred from an one film to another. In theory, this could lead to whole new films being created solely from digitized pieces of old films. Since large studios, the "employers," own all copyright images under the work for hire doctrine and many have transferred such rights to yet other companies, under such a theory, directors and other contributors would have no control over how their films are cut-up and pasted into new contexts, in new films. These technological developments, combined with the vertical integration of the movie industry and the fact that a few, frequently foreign, companies own nearly all past motion picture images, make Hollywood directors very anxious about future use of images from *416 their previous films. [n.45] Eventually, as motion picture image banks become a reality, copyright law will be forced to remedy this situation in some way to prevent the total "productization" of movies in George Lucas' bad dream.

Finally, technological advances are beginning to allow computers, without specific human direction, to create images. [n.46] This topic is beyond the scope of this Article, but for copyright purposes, the question that arises regarding computer-generated images is whether the "author" is the computer or the human who operated the machine; in most instances, the present answer is the human. [n.47] However, it seems likely that future copyright issues for the motion picture industry will involve authorship of computer-generated images.

IV. COPYRIGHT ISSUES ARISING FROM PROTECTION OF DIGITIZED IMAGES USED IN MOTION PICTURES

A. Inability to Prevent the Transfer of Digitized Images

Now that Big Picture has created One of a Kind and the film was digitized by Effective for editing and special effects purposes, its images are accessible via electronic means. Traditionally, Big Picture recalls, the studio was able to retain control over images and licensing because high-quality copies could not be made without access to the master, the original copy of the film. [n.48] However, Big Picture realizes that digitized images now can be transferred electronically through disks, phone lines, bulletin board services and image libraries, among others, and is concerned that images from One of a Kind will be copied. [n.49] Counsel for Big Picture advises the studio that due to the ease with which digitized images can be electronically transferred, quickly, secretly and without any way to trace their movements or even detect that the image has been copied, [n.50] there is little legal protection for scenes and images in One of a Kind, until the point at which Big Picture files an infringement claim.

One way in which there is little protection of copyrighted digitized images is through their quick and easy transfer via phone lines and computer bulletin board services. A recent technological study noted:

*417 Once in a host computer, a work [of art] can be easily and quickly transferred to any other host in the network. Even if the work is confined to one 'closed' network, it can be entered into other networks by a given host, at which point control over the work is lost. Copyrighted works, such as photographs, that exist in a closed database library, which is itself part of a network, may be downloaded onto one host in the network and transferred to another network, where they may be excerpted or modified by others with access to the network. If such 'sharing' occurred in simple exponential fashion at 15 minute intervals, it would take approximately 8 hours to blanket the entire world's population with copies. [n.51]

Given the speed and ease of digitized image transfer, it is unfortunate that bulletin board services are sometimes lax in their concern for copyright law or unaware of potential copyright problems. [n.52] Bulletin board services may carry images which are altered and displayed without permission of the originator, with copyright notice deleted, because on-line participants may insert images that have been scanned from books, prints, posters or other visual medium, without permission, into the system. [n.53] Because many artists and on-line users seem to be completely unaware of copyright law and the fact that they need permission to copy images, if bulletin board services also fail to warn users and monitor images, then there is almost no way to prevent infringements. [n.54]

In addition to bulletin board services, digitized images are freely available through clip-art libraries via modem and on CD-ROM (Compact Disk, Read Only Memory) and floppy disk. A company, artist or advertising agency may use a clip-art library to buy images through software packages or on-line image catalogs; this action saves the cost of obtaining permission to use these images individually or to actually create the images themselves. [n.55] Clip-art libraries give licenses to use their images for specific purposes, in specific contexts and should, but often do not, properly obtain licenses from the originator of the image; some libraries require the users to obtain their own licensing agreements from originators. [n.56] Although such requirements clearly alert clip-art

library users to the possibility of copyright *418 infringement, they also put the burden on users to figure out terms of licensing agreements with originators; this task may be so daunting for the average user that ignoring the licensing issue will be the likely result. [n.57] Licensing and tracking of images through clip-art libraries have already become so difficult that clip-art vendors have already accused each other of copyright infringement. [n.58]

Given the development of technology and the steady decrease in costs, computer instruments to digitize photographs will become more prevalent in more private settings. It may soon be possible for the average computer user to digitize video images from television and video-cassettes and then to copy, manipulate and distribute those images, in the privacy of his or her own home, through his or her computer and modem. [n.59] As image use and manipulation become faster, more common and more private, monitoring infringement will become almost impossible since authors of copyrighted works will never be able to supervise private computer use inside homes. Thus, preventing infringement will not be a realistic option for the author of a copyrighted work; if and when an author even realizes his work has been copied, his only option will be to file an infringement claim and hope he can prove the necessary elements.

B. Copyright Infringement Claim

I. Showing Evil Bear Is Copyrightable

As the release date for *One of a Kind* nears, an employee of Big Picture travels through the midwest and sees an advertisement depicting a malicious-looking teddy bear holding a plastic toy gun, the Big Toy Company's product. The employee thinks the bear is familiar to him and, during a pre-release screening of *One of a Kind*, realizes that the bear is from a scene in which it is one of many toys that seems to attack a child in a bad dream. The employee mentions this coincidence to his boss who passes the word until the news eventually ends up with Big Picture's counsel.

Big Picture's counsel spends considerable effort tracking down the Big Toy advertisement and obtaining a copy. After analyzing the ad, counsel believes that it portrays an altered version of Evil Bear, a mean teddy bear who appears briefly in a scene in *One of a Kind*. Counsel explains to Big Picture that it is often very difficult to show copyright infringement in such a situation, but Big Picture decides to file a claim against the Big Toy Company. To prove copyright infringement, Big Picture must show that *419 Evil Bear was a copyrightable image, that copying took place and that the result was an illegal use of the image. [n.60]

a) Originality and Showing an Image Merits Copyright Protection

The Copyright Act states that copyright protection extends to:

original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. Works of authorship include the following categories: . . . (5) pictorial, graphic, and sculptural works; (6) motion pictures and other audiovisual works . . . [n.61]

Primarily, Big Picture must show that Evil Bear is an "original work of authorship."

The standard for originality is often easily met. The Copyright Act notes that there is no requirement of novelty, ingenuity or aesthetic merit for originality. [n.62] Furthermore, the Supreme Court concluded that originality requires only "some minimal level of creativity." [n.63] The Court explained that originality extends to particular expressions of ideas, not the ideas themselves; this decision "assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work." [n.64]

b) The Merger Doctrine

While originality and copyrightable expression appear to be a simple analytical matter, there is some debate regarding when an "expression" is copyrightable. The Ninth Circuit Court of Appeals has asserted that an idea may merge with its expression, rendering it impossible to create an expression of that idea which does not resemble other expressions of that idea, and, furthermore, that, in such a situation, it is "unrealistic" to expect designers to "have closed their minds" to the popular creations of others. [n.65] *420 While the Supreme Court has not repeated the Ninth Circuit's merger doctrine, it expressed a very similar notion by holding that White and Yellow Pages are not copyrightable because the originality involved in their arrangement of facts is de minimus. [n.66] The Court's conclusion that arrangement of White and Yellow Pages does not merit originality is analogous to the conclusion that the idea of the arrangement and its expression have "merged" and, thus, all arrangements of facts in a phone book will resemble all other such arrangements. While the Supreme Court's holding is limited to situations involving arrangements of facts, the Ninth Circuit has not similarly limited the merger doctrine, [n.67] and it remains unclear under what circumstances an idea and expression merge.

In light of the Ninth Circuit's analysis, Big Picture is concerned that Evil Bear may not even be considered an "original" because its idea may merge with its expression. In the case of Evil Bear and determining if it is a copyrightable expression, a court would consider the number of variations possible in images of teddy bears. What gives Evil Bear originality? In the scene from One of a Kind, Evil Bear has a sneer on his face, depressed eyebrows, scarred and uneven fur, claw-like nails and walks with a limp. The many ways in which a teddy-bear might be portrayed and the particular expression which is Evil Bear should be distinctive enough for a court to conclude that there is originality.

However, given the goal of copyright law to encourage artistic creation, the standard for originality should be low. As Congressional intent through the Copyright Act and the Supreme Court's standard of a "minimal degree of creativity" show, [n.68] works should easily meet the originality requirement so that protection of works can be asserted, and creativity and invention continue to be encouraged by the copyright scheme. If the originality standard is not low, authors, thinking that their rights are secured by copyright, will create works, and be bitterly surprised to discover that copyright is highly selective in allotting its protections. In fact, choosing which creations merit protection may allow for high subjectivity or censorship.

The "merger" concept, i.e. selective originals, is particularly troublesome because copying and manipulating of simple, digitized images, such as trees, houses and cars, will increase with the ease of taking pieces, single images or parts of images, from one pictorial work and computer-pasting them together to create new scenes and images. If these images are basic enough, their ideas may merge with their expressions and a court may fail to even consider them copyrightable originals; this action will leave no *421 protection for authors in these situations. If Evil Bear is not "original," then certainly less distinctive images will not be given copyright protection if they are lifted from One of a Kind and placed in ads.

Second, for a work to be copyrightable, it must be "fixed in a tangible medium of expression." [n.69] The Copyright Act states that the work may be fixed in any medium or manner that is capable of being perceived by itself or through any device "now known or later developed," and any recorded image is considered fixed. [n.70] Thus, Evil Bear's image in digitized scenes from One of a Kind fixed the image in a tangible medium of expression through its being recorded on film and into computer memory.

Finally, if Big Toy claims that it changed Evil Bear or used it to piece together a new creation, then Big Toy's portrayal may be a "derivative work" or "compilation" under the Copyright Act. The Act describes a derivative work as a "process of recasting, transforming, or adapting" one or more pre-existing works and a compilation as a "process of selecting, bringing together, organizing and arranging previous material of all kinds, regardless of whether the individual items in the material have been or ever could have been subject to copyright." [n.71] If the courts term a work to be a derivative work or compilation and that author claims a copyright on that work, that copyright covers only the new material added by the new author and has no effect on the copyright status of the pre-existing materials. [n.72] Hence, if Big Toy claimed a copyright of its advertisement as a derivative work or compilation, Big Picture may still assert copyright infringement of Evil Bear because Big Picture still owns the image of Evil Bear and Big Toy did not obtain a license to use that image as part of its alleged "new" work. As owner of the copyright of Evil Bear, Big Picture has the sole right to authorize reproduction of the image, preparation of derivative works, distribution of the image to the public by sale or display, and to transfer ownership or license use of the image. [n.73]

*422 2. Showing Evil Bear Has Been Copied

a) Defendant Access to the Allegedly Copied Image

"Since direct evidence of copying is rarely, if ever, available, a plaintiff may prove copying by showing access and 'substantial similarity'." [n.74] That the defendant had access to the original is usually shown through circumstantial evidence by which the trier of fact may reasonably infer copying. [n.75] In cases involving wide public exposure of the original, access may be assumed. [n.76]

In our scenario, Big Picture will have difficulty showing that Big Toy had access to the image of Evil Bear. Since Evil Bear was created on film and stored on computer, many employees at both Big Picture and Effective have had opportunities to copy the image. Additionally, for pre-release publicity and in order to measure marketability and audience response, scenes from the movie have been shown and photos from the scene containing Evil Bear have been sent to many news sources and magazines. Although many people have seen the image of Evil Bear, Big Picture may be unable to provide enough evidence of public exposure for a jury to reasonably infer access. Unless Big Picture can find the "leak" who originally copied the image and distributed it electronically or otherwise, through an unknown number of intermediaries, it will be difficult to conclusively prove that Big Toy received a copy of the image or had opportunity to view it. [n.77] Eventually, as evidenced by Big Picture's dilemma, electronic means of transferring images will make precise showings of access nearly impossible since there is presently no way to trace movement of data through computers and phone lines, so in order to entertain future copyright claims, courts will increasingly have to defer to greater assumptions of access. [n.78]

*423 b) Substantial Similarity

The second part of proving Big Picture's copyright infringement claim involves showing substantial similarity between the portrayal of Evil Bear in One of a Kind and the Big Toy advertisement. The issue of substantial similarity is the most difficult issue in claims of copyright infringement of digital images. The issue is how much copying of what parts is necessary for the court to recognize it as infringement. [n.79]

In infringement decisions, the Supreme Court has set forth a qualitative and quantitative analysis of substantial similarity and copying. [n.80] In *Harper & Row, Publishers v. Nation Enterprises*, the Court concluded that copying 300 words from the unpublished memoirs of President Ford was infringement. [n.81] The Court noted that although 300 words was a small quantity from the plaintiff's work, "a taking may not be excused merely because it is insubstantial." [n.82] The Court also looked at the quality of the words copied and concluded that they were a key part of the plaintiff's work, "powerful passages." [n.83]

Still, the standard for substantial similarity remains "difficult to define and vague to apply." [n.84] Since there have been no court decisions on infringement using digital

images, the substantial similarity standard remains unknown in these cases. To try to predict how a court would analyze digital image similarity, it is helpful to examine the copyright standards in analogous media.

One analogous situation is the legal standards set in digital sampling used in rap music. [n.85] In the most recent digital sampling decision, *Jarvis v. *424 A&M Records*, the defendants admitted sampling sections of plaintiff's song, and, thus, the question for the court was whether the copying was unlawful. [n.86] The sampled sections were a "bridge section which contains the words 'ooh . . . move . . . free your body'" and "a distinctive keyboard riff, which functions as both a rhythm and melody." [n.87] Primarily, the court stated that the perspective for similarity of the copying is that of the "ordinary lay person." [n.88] The court in *Jarvis* asserted that the analysis is quantitative and/or qualitative in relation to the plaintiff's work, not the defendant's work. [n.89] The court found that the defendants had copied the quality of the work, the relationship of the song phrases and "distinctive" and "attention-grabbing" sections. [n.90]

Other substantial similarity analyses are also instructive in predicting how courts might view infringement cases using digital images. Substantial similarity comparisons of photographs have involved "composition, backgrounds, colors, lighting, objects photographed and cropping" [n.91] and "appearance and color . . . angle from which they were taken . . . their overall portrayal, effect and presentation . . . and likelihood of confusion." [n.92] Courts have concluded that a jury might reasonably find similarities to be substantial in the unauthorized televising of clips constituting as little as one to seven percent of a plaintiff's films, [n.93] and have declared that copying the cover of a magazine is relatively insubstantial. [n.94] For purposes of comparing substantial similarities between films' characters and their component parts, courts have examined *Freddy Krueger's *425* expression through "his scarred face and glove with protruding razor blades" [n.95] and have compared aliens by age, by number, by number of languages spoken, by their relationship with the lead protagonists, by their disposition towards earth people, by alien world settings, and by the color and shape of the aliens' spaceships. [n.96] In spite of the variety of factors, the overall substantial similarity analyses seem to involve quantitative and qualitative comparisons of the infringed work from the perspective of an ordinary person. [n.97]

Copying of images digitally involves the question of how much copying of what parts constitutes infringement under the substantial similarity standard. As with other media, the courts must determine in what ways to dissect digital images and their uses for comparison purposes. Based on analogous case law, [n.98] a court would begin with a qualitative and quantitative examination of the image, by itself, in plaintiff's work through the following visual factors: color, angle, texture, size, lighting, subject and components of the subject. Secondly, a court would qualitatively and quantitatively analyze the image and its use in relation to images and scenes around it in plaintiff's work. Both the first and second parts of the suggested analysis would be from the perspective of the ordinary observer.

How would the court decide Big Picture's claim of infringement of Evil Bear by Big Toy? Under the first part of the suggested analysis, the court would compare Evil Bear to the bear used by Big Toy visually. In *One of a Kind*, Evil Bear is dark brown and about two and a half feet tall; is shown from the side and front in darkish light; has a sneer on his face, depressed eyebrows, scarred and uneven fur, claw-like nails; and walks with a limp. The Big Toy bear is light brown, about five feet tall; shown from the front in bright light; has a sneer and depressed eyebrow; healthy, thick fur; regular paws and does not walk in the ad.

Would an ordinary person visually confuse Evil Bear with the Big Toy bear out of their different contexts? [n.99] Certainly, on first glance, the bears do seem to alike - mean teddy bears, both brown, both with sneers and depressed eyebrows, and both shown from the front. However, the differences in detail and settings are also significant: one bear is light brown, one bear is dark brown; one bear has claws, one bear has paws; one bear is *426 tall, one bear is short. In addition, the court would consider the quantity and quality of the copied sections. Here, it appears that Big Toy copied the angle, general color and facial expression of Evil Bear. In terms of quantity, the copying was significant, but by no means exact. However, the quality of copying was great - Big Toy copied Evil Bear's sneer and depressed eyebrows, the heart of Evil Bear's expression.

Under the second part of the test, the court would compare the settings in which the bears are portrayed. In *One of a Kind*, Evil Bear is part of a group of toys, marching through a child's bedroom, attacking the child in a bad dream. In the Big Toy ad, the bear poses like a jungle warrior, holding the Big Toy gun against a white background. In scene from *One of a Kind*, Evil Bear is a minor character, or lesser qualitative importance, and only one of many toys in the scene, so also of lesser "quantity" relative to the entire scene.

After balancing the quantity and quality of copying in the first and second parts from the ordinary person perspective, this would be a close decision, but in order to continue the analysis, we will assume that the court does find substantial similarity between Evil Bear and Big Toy's bear. Thus, Big Picture has proven that Evil Bear was infringed.

3. Fair Use Defense

If copying is proven, i.e. the court finds access and similarity, the defendant can still assert a fair use defense. Simplified, the fair use doctrine excuses infringement because the use of the copied material is fair. The Historical Notes to the Copyright Act comment that "[a]lthough the courts have considered and ruled upon the fair use doctrine over and over again, no real definition of the concept has ever emerged." [n.100] Nevertheless, the Act defines fair use as follows:

In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include -

(1) the purpose and character of the use, including whether such is of commercial nature or is for nonprofit educational purposes;

- (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; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work. [n.101]

Until recently, *Harper & Row v. Nation Enterprises* and *Sony v. Universal City Studios* were the two major Supreme Court opinions interpreting the fair use standard. Regarding the first factor, the purpose of the use, the Supreme Court stated in *Harper* that a commercial purpose *427 weighs against a finding of fair use, but that the focus is not whether the sole motive of the defendant is monetary gain, but whether the user will profit from use of the copyrighted material without paying the customary price. [n.102] However, *Harper* also reiterated the Supreme Court opinion in *Sony*, which had asserted that "every commercial use of copyrighted material is presumptively an unfair exploitation" [n.103] This statement led lower courts to conclude that if a work was commercial, then there was a presumption that the purpose of the use was not fair. [n.104]

After addressing the first factor in *Harper*, the Supreme Court explained the standard for the second factor, the nature of the work. The Court explained that if the nature of the work was creative, fictional and/or unpublished, that would weigh against fair use. [n.105] In reference to the third factor, the amount and substantiality of the use, the Court's analysis was essentially the same as that of analyzing substantial similarity *supra*, except that the Court considered the amount and substantiality in relation to defendant's work as well as plaintiff's. [n.106] Regarding the fourth factor, the Supreme Court stated that the effect on the actual or potential markets for the plaintiff's work is the most important factor. [n.107] The Court noted that "to negate fair use one need only show that if the challenged use 'should become widespread, it would adversely affect the potential market for the copyrighted work.'" [n.108] The Court also stated that both the effect on the original market and the effect on the market for derivative works should be considered. [n.109] Finally, the Court also asserted that fair use presumes good faith and fair dealing on the part of the defendant. [n.110]

Is Big Toy's use of Evil Bear's image fair under the traditional analysis? While the Supreme Court standard seems relatively clear, fair use remains an "elusive" concept, [n.111] interpreted with great variation by courts, [n.112] and, *428 thus, any interpretation of fair use must be tempered by the unpredictability in this area. Under the first factor, since Big Toy used the image of Evil Bear for a commercial purpose and will profit from the use of the image without having paid the customary price, this factor weighs against fair use. Regarding the nature of the copyrighted work, Evil Bear's image was essentially "unpublished" since *One of a Kind* had not yet been released; as the artist maintains a strong interest in the first public appearance of his expression, this factor also weighs against fair use. The third factor, the amount and substantiality of the use, is a close analysis as indicated under the substantial similarity discussion above. [n.113] However, under fair use, the court also considers the importance of the image in the defendant's work. While our hypothetical court concluded that the most closely copied

part, Evil Bear's facial expression, was the heart of his image in the plaintiff's work, the use of Evil Bear as the focus and large quantity of defendant's advertisement also weighs against fair use. Finally, the court would consider the potential impact of Big Toy's use on the plaintiff's market for the original work and derivative works. Big Toy's advertisement is unlikely to have any effect on the market for One of a Kind, but it may affect the derivative market of products that Big Picture creates if the film is successful. Big Picture might want to produce toys in response to One of a Kind's success and the use of Evil Bear's image in conjunction with Big Toy might detract from Big Picture's toy market. Additionally, it is conceivable that Big Picture may want to produce other products and that the association that Big Toy's advertisement has created between Evil Bear and toy guns might be detrimental to that potential market. On the other hand, Big Toy might argue that its advertisement actually serves to publicize the character and movie, and actually increases One of a Kind profits and potential markets. Overall, the effect on Big Picture's market would be difficult to determine, but with the other three factors weighing against traditional fair use, a court would probably not find fair use to be a valid defense for Big Toy.

However, under the July, 1994, Supreme Court decision on fair use in *Luther R. Campbell v. Acuff-Rose Music, Inc.*, [n.114] Big Toy might make a different fair use argument under the first fair use factor, the purpose of the use, and perhaps sway the balance. The Campbell case involved rap group 2 Live Crew's parody of the Roy Orbison classic song "Oh, Pretty Woman." [n.115] The Supreme Court held that the parody was a fair use of the copyrighted original and that neither the first nor the fourth fair use factor necessitated a presumption that a commercial use was unfair, [n.116] but merely *429 that commercial use "may weight against a finding of fair use." [n.117] This holding reversed a major trend by lower courts to confine much of fair use analyses to whether or not a defendant's work was commercial. [n.118] Under the traditionally, anti-commercial fair use determination, Big Toy would have been very unlikely to succeed.

However, under Campbell, Big Toy should try arguing that the company's bear was a "transformative use" of Evil Bear, despite being commercial. In the Campbell analysis of the purpose of the use, the Supreme Court focused on the fact that 2 Live Crew's parody was a transformative use of "Oh, Pretty Woman." The Court explained that the issue was "whether the new work merely 'supersede [s] the objects' of the original creation . . . or instead adds something new, with a further purpose or different character, altering the first with new expression, meaning, or message; it asks, in other words, whether and to what extent the new work is 'transformative.'" (citation omitted). [n.119]

While the legal responses to Campbell have been varied. [n.120] at least one commentator has proclaimed that transformative use may be applicable to multimedia, digital image scenarios. In his article "Fair Use Comes of Age," Attorney Richard Wiebe suggested that

[b]y holding that commercial, transformative derivative works can constitute a noninfringing fair use, Campbell has expanded the scope of what the creator of a digital or multimedia derivative work can take without permission without infringing the pre-existing work's copyright. Correspondingly, Campbell has reduced the ability of

copyright owners to demand licenses and royalties for every commercial use of elements of their works in digital or multimedia derivative works created by others. [n.121]

*430 Wiebe recommended focusing on particular aspects of the Supreme Court's opinion to determine if a multimedia work is likely to infringe the original: whether the new work is transformative; whether the original is factual or creative; whether the amount taken from the original is the minimum necessary to achieve the transformative purpose; whether the new work falls within a traditional derivative market and, if so, does it harm that market. [n.122]

With reflection on Campbell and Wiebe's suggestions, Big Toy should argue that it transformed Evil Bear. Big Toy could state that the company's bear is a different expression with different features and character than the original, a sort of hyper-warrior version of Evil Bear, meant to mock the original by highlighting his insignificant threat in the movie and exaggerating the bear's power through use of weapons, and that Big Toy only used the minimal visual references necessary to conjure up the thought of Evil Bear in the minds of its audience. Big Toy could also argue that its toy gun advertisement does not harm the original's market because Big Picture would be likely to market derivative works such as stuffed toy bears, action figures, storybooks, videos and cartoons based on Evil Bear, but unlikely to market toy guns derived from the character. Additionally, in an argument similar to the Supreme Court reasoning for protection of a parody, Big Toy might claim that Big Picture would always be reluctant to license advertising endorsement by a movie character of a toy gun because of the negative connotations that might attach to the character and, thus, Big Toy's use should be protected as a possibly unpopular, but important transformative use and free speech expression. However, despite these arguments, a court still might not find that Big Toy's use was fair because it did not reasonably contain any social commentary or transformative value, because the original work was creative and fictional, and because any toy products might infringe potential derivative markets for toys that derive from One of a Kind or its characters.

4. Results of a Digitized Image Infringement Claim

Like the scene in One of a Kind, Big Picture feels like it is waking up from a bad dream. Big Picture has spent great time and money in negotiations and litigation trying to solve its infringement claim with Big Toy. While Big Picture defeated Big Toy's fair use defense, it only narrowly convinced the court that copying had occurred. Big Picture can now obtain actual damages and defendant's profits which resulted from the infringement. [n.123] However, Big Picture doubts that any damages it receives will cover what it has spent in time, energy and legal fees to assert the infringement claim.

*431 Big Picture's hypothetical experience brings to light the many issues regarding digital images and copyright infringement claims. Under current case law and the Copyright Act, authors of images have numerous problems: they cannot adequately monitor transfer of their work or recognize that their work has been digitally altered and incorporated into a new context; they may not be able to show that simple images are

original enough to earn copyright protection; they may not be able to show that a defendant had access to their work, that a copied work is substantially similar, or that defendant's use was not fair, especially under the recent Supreme Court decision.

V. A SUGGESTED SOLUTION TO PROBLEMS WITH DIGITAL IMAGERY AND COPYRIGHT INFRINGEMENT CLAIMS

A solution to the above-identified copyright issues must balance an originator's need for financial incentive and a creator's needs to use images at reasonable cost in an era where combining images via computer is inherent in artistic creation, advertising and media. The current private licensing system breaks down when an originator does not wish to license a work and another person insists on using that work, when an originator and another person have different conceptions of a fair price for use of a copyrighted work, or when a person decides that it is more in his or her own interest to use the work illegally than to obtain permission. [n.124] For the copyright scheme to work well, a solution to digital imagery problems must make the licensing system work.

Consider a slightly different version of our hypothetical with Big Toy and Big Picture which illustrates a major break down in the copyright licensing scheme. Big Toy asks Big Picture for a license to use Evil Bear. Since Big Toy wants to use the image in an advertisement, Big Picture demands a price that Big Toy considers to be an unreasonable price for the license. Big Toy quickly decide the advertisements will be incredibly costly if the company buys the image, so it decides to use the images without Big Picture's permission. Eventually, Big Picture discovers the infringement, brings a claim, and the court awards punitive damages because of Big Toy's willful infringement.

For the next advertising campaign, Big Toy again wants to use an image from a copyrighted source. However, this time, Big Toy has learned its lesson and refuses to risk more punitive damages by requesting a license first. Big Toy figures that even if it inquired, the licensing fee would probably be too high anyway. Additionally, Big Toy thinks that *432 with the appearance of good faith on its part, it may be able to assert a fair use defense if the originator even discovers that their image was copied. [n.125]

The above scenario illustrates that for the copyright system to function well, it must encourage licensing that provides incentive for originators to create and users to obtain permission. There have been numerous suggested solutions to the recurring problems in copyright and licensing. These solutions include new Congressional legislation to expand copyright law to include new technologies; [n.126] a tax on technologies which allow easy and private copying of works in order to distribute royalties to creators of works that must be accessed through such technologies; [n.127] compulsory licensing in response to new technologies; [n.128] and voluntary licensing. [n.129] While all these solutions have benefits and drawbacks, a system for copyright and digital imagery in films should provide a relatively prompt legal answer which incorporates licensing and technology. Due to the vertical integration of the motion picture industry [n.130] and the speed of technological progress in the industry, a solution should attempt to take advantage of

technology, not restrict and hinder it. Somehow legislators have failed to note that while the law slowly debates new inventions, creators steam forward to find their own ways of controlling and solving problems they have created. [n.131]

*433 The solution this author proposes would incorporate the computer technology that currently confounds the system, into the system. [n.132] Since it is computer technology that creates images faster than one can register them, [n.133] the Copyright Office should set up a system to allow copyright registration, just as quickly, electronically. Allowing deposit of images electronically would mean that the instant originators invented an image, day or night, in a film studio or their home, they could transmit that image through a modem into the copyright registry. Such a system could run automatically through software, and users could pay deposit fees through credit card numbers, all on-line. The ease and speed of such a system would ensure that image originators could beat infringers to the registry and would be in a much stronger position regarding licensing of that registered image or a later infringement claim. Such a solution would take full advantage of the deposit and registration system already in place and only require the costs of the computer technology necessary for its operation.

Additionally, since all information conveyed electronically uses numbers, a computer system could instantly compare numerical structures of new images and old, upon registration, and alert a newer register that the new work closely resembles a previously registered work. In the event of later infringement cases, if a defendant had earlier attempted to register the work at-issue, this warning would show notice and access. A warning system would also provide examples of similar, previously registered, works so that a creator could have immediate knowledge of how likely an idea and expression were to merge in that work, and how much "originality" it might contain for copyright purposes.

Furthermore, on-line copyright registration would lead to greater predictability in digital image infringement cases and, thus, better and more applicable licensing agreements, and, thus, less litigation. Since the substantial similarity and access elements of an infringement case may be shown through the proposed on-line registration procedure, the unpredictability of analyses of these elements should greatly diminish. While fair use will remain a possibly strong defense, the stability of the similarity and access elements should encourage more settlements of infringement cases. Settlements should increase because licensing agreements should be clearer, and easier to negotiate and elicit with predictability of the originality, access and substantial similarity standards *434 established. Additionally, image-users would be more likely to request licenses before using images because proving infringement should become easier and more reliable.

While computer registration would require substantial funding, it would be a good investment for the Copyright Office. [n.134] Currently, literary, dramatic, musical, pictorial, architectural and software works could easily be registered through computer technology; [n.135] conceivably, in the near future, it will be possible to register everything in this manner.

However, some are concerned that electronic registration may, in fact, create access to a vast library of images and information, otherwise unavailable, which may easily be copied by registerers using the on-line system. [n.136] This concern fails to realize that images are easily available already, under the current system, and copyright law is not adequately protecting rights of digital image creators. Electronic registration will solve what is already a problem, not create a new problem. Additionally, concerns about on-line copying through electronic registration can be remedied by tracking users of electronic registration and restricting access to on-line information. Users might be tracked through their phone numbers, their credit card numbers or their social security card numbers, or through issuance of a password allowing access to on-line information only after payment and approval from the Copyright Office. While users could register their creations immediately, they might have to wait before they could access information to compare images or originality.

George Lucas' bad dream that technology will advance to allow others to alter, communicate and copy film-makers' work and that their authorship will be lost under the current copyright system, may soon be a reality. Because of growth in creative potential and economic savings, the use of technology in film-making is expanding. However, because there is no case law and no specific provision in the Copyright Act to address copying and altering of digital images in motion pictures, the application of copyright law in this area remains unknown and Lucas' bad dream remains a possibility. As this Article has asserted, both obtaining digital images and protecting digital images present problems now and in the future for the copyright system. These problems are especially evident in proving the originality, access and substantial similarity elements of copyright infringement, and preventing a successful fair use defense. Copyright law *435 must address these issues to remain predictable and fair; if it fails in this respect, then copyright law will also fail to be an incentive for artistic creation. To maintain artistic incentive, the integrity of copyright law must be maintained by working with technology, not against it, so that the law addresses technology instead of denying it. Part of facing technology is using its capacities to our benefit to solve problems it created, and to end the bad dream in copyright law.

[n.a]. Judith A. Silver is a third year Juris Doctor candidate at University of California, Hastings College of the Law, May 1995. The author wishes to thank James M. Kennedy, General Counsel at Mindscape, for his comments and inspiration. This article received first place at Hastings College of the Law in the 1994 ASCAP Nathan Burkan Memorial Competition.

[n.1]. Lucas and Spielberg Speak Out for Artists' Rights, Ent. Litig. Rep., Jan. 27, 1992.

[n.2]. See Robert Cringely, Hollywood Goes Digital, Forbes, Dec. 7, 1992, at 46; Paula Parisi, Kodak Cineon Runs on Silicon, Hollywood Rep., Sept. 30, 1992; Matt Rothman, ILM, SGI Form Alliance Against Sky-High Sci-Fi, Daily Variety, Apr. 8, 1993, at 1;

Jonathan Weber, *The Force Is Still with Him; Lucas Showcases Gadgets to Show He Remains King of the Special-Effects Hill*, L. A. Times, Apr. 8, 1993, at D1; *Lucas and Spielberg Speak Out for Artists' Rights*, supra note 1.

[n.3]. *Night on Earth*, Columbia/TriStar, 1991.

[n.4]. Ellen Pall, *Sets Big and Small Challenge Movie Makers; 'Night on Earth': Was Filming Inside a Cab a Deadly Trap?*, N.Y. Times, June 7, 1992, at 13.

[n.5]. *The Crow*, Crowvision Inc., 1994.

[n.6]. *Id.*; see also Jeff Silverman, *Guns on a Set Can Often Spell Danger*, N.Y. Times, May 2, 1993, at 23.

[n.7]. Cf. Kathy Chin Leong, *Special F-X: Hollywood Goes High Tech. PC- Computing*, May, 1989, at 58 ("Rather than risk the film's expensive talent in perilous situations, director Steven Spielberg's camera crew shot many dangerous scenes using PC-controlled models and animation instead of live action.").

[n.8]. See infra note 36.

[n.9]. Weber, supra note 2; see also infra notes 29, 30, 35, 36 and accompanying text.

[n.10]. *Id.* ("Lucas believes that it will only be a few years before film will be converted to digital form immediately after it is shot, and then all post-production work - including effects - will be done on a computer."); see Judy Siegel-Itzkovich, *Computer-disk Photos Looming Ahead*, Jerusalem Post, April 12, 1992 (discussing filmless camera technology).

[n.11]. U.S. Const. art. I, § 8, cl. 8.

[n.12]. *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984).

[n.13]. *Id.* at 430.

[n.14]. National Commission on New Technological Uses of Copyrighted Works (CONTU), Final Report on New Technological Uses of Copyrighted Works 82 (1979) reprinted in Nicholas Henry, *Copyright, Congress and Technology: The Public Record; Volume V: CONTU's Final Report and Recommendations* (1980) at 4, 5; see generally Mary L. Mills, *New Technology and the Limitation of Copyright Law: an Argument for Finding Alternative to Copyright Legislation in an Era of Rapid Technological Change*, 65 *Chi-Kent L. Rev.* 307, 310-13 (1989).

[n.15]. Henry, *supra* note 14, at 13.

[n.16]. *Id.* at 89.

[n.17]. *Id.* at 93-4 (CONTU failing to recommend solutions to upcoming technological problems); Lucas and Spielberg *Speak Out for Artists' Rights*, *supra* note 1 (describing Congressional failure to address current and future issues such as film alteration and labeling).

[n.18]. *Sony Corp. of America*, 464 U.S. at 431; see also Mills, *supra* note 14, at 318.

[n.19]. Mills, *supra* note 14, at 327, 330-31.

[n.20]. *Id.*

[n.21]. See Weber, *supra* note 2, for such studio concerns.

[n.22]. 17 U.S.C. § 201(b) (1993).

[n.23]. Register of Copyrights, *Report: Technological Alterations to Motion Pictures and Other Audiovisual Works: Implications for Creators, Copyright Owners, and Consumers* (1989), reprinted in 10 *Loy. Ent. L.J.* 1, 24, 47 n. 87 (1990) ("Whether the producer, studio, or financial corporation backing the picture owns the copyright is generally dependent upon how large a role the producer plays in bringing the various elements together, and how much financial risk he or she takes.").

[n.24]. The position, more fully recognized in Europe, for retention of copyright ownership so as to preserve artistic integrity of the film is termed an argument for "Moral

Rights." See generally Lucas and Spielberg Speak Out for Artists' Rights, *supra* note 1; Register of Copyright Report, *supra* note 21, at 55-107; Amy L. Landers, The Current State of Moral Rights Protection for Visual Artists in the United States, 15 *Hastings Comm. & Ent. L.J.* 165 (1992); Carl H. Settlemeyer III, Between Thought and Possession: Artists' "Moral Rights" and Public Access to Creative Works, 81 *Geo. L.J.* 2291 (1993); Craig A. Wagner, Motion Picture Colorization, Authenticity, and the Elusive Moral Right, 64 *N.Y.U. L. Rev.* 628 (1989); Jeremy Waldron, From Authors to Copiers: Individual Rights and Social Values in Intellectual Property, 68 *Chi.-Kent. L. Rev.* 842 (1993).

[n.25]. 17 U.S.C. § 101 (1993).

[n.26]. *Community for Creative Non-Violence v. Reid*, 490 U.S. 730, 751 (1989).

[n.27]. *Id.* at 751-752 (footnotes omitted).

[n.28]. 17 U.S.C. § 201 Historical Notes (1993).

[n.29]. See Wagner, *supra* note 24, at 632, 654-56.

[n.30]. John Gastineau, Bent Fish: Issues of Ownership and Infringement in Digitally Processed Images, 67 *Ind. L.J.* 95, 97-98 (1991).

[n.31]. Richard Wolkomir, High-tech Hokum Is Changing the Way Movies Are Made; LucasArts' Industrial Light & Magic, *Smithsonian*, Oct., 1990, at 112 (quoting Ed Jones, director of post-production at Industrial Light and Magic, a special effects company formed by George Lucas).

[n.32]. See description of special effects based on scanning hobby shop plastic submarines, leather dog collars, engines and live elephants *id.*, ("Jay Riddle, ILM's [Industrial, Light & Magic's] computer-graphics-animation supervisor says . . . 'the actor sits in a chair and a laser circles his head, precisely measuring all his features.'") The copyright problems arising from digitizing images of persons are beyond the scope of this article, but involve additional issues of film character ownership, distribution rights, performance rights, display rights, image and likeness protection, and trademark, among others. See generally Joseph J. Beard, Casting Call at Forest Lawn, 8 *High Tech. L.J.* 101 (1993); Mark Goodman, Doris Bacon and Lyndon Stambler, Keeping the Flame: Robyn Astaire, Guardian of Her Late Husband's Image, Withholds Clips of Fred From a TV

Tribute to Ginger Rogers - and Stirs a Hollywood Flap, *People*, Feb. 22, 1993, at 26; Peter Nichols, *When the Untouchables Are Retouched*, *N.Y. Times*, Oct. 8, 1989, at 32.

[n.33]. Wolkomir, *supra* note 31; Richard Corliss, *They Put the ILM in Film*; at George Lucas' Oscar-hoarding Industrial Light & Magic, *Computer Wizards Are Re-forming the Fact of Movies*, *Time*, April 13, 1992, at 68. *The Abyss* (20th Century, 1990); *Terminator 2 - Judgment Day* (Carolco Pictures, 1991).

[n.34]. 17 U.S.C. § 102 Historical Notes (1993).

[n.35]. But see *Mazer v. Stein*, 347 U.S. 201, 217-18 (1954) (upholding copyright for statuette lamps); *Kiselstein-Cord v. Accessories by Pearl*, 632 F.2d 989, 990, 208 U.S.P.Q. 1, 2 (2d Cir. 1980) (holding metal sculpted belt buckles copyrightable); *Towle Manufacturing v. Godinger Silver Art*, 612 F. Supp. 986, 992, 226 U.S.P.Q. 599, 601 (S.D.N.Y. 1985) (refusing to uphold copyright for hand-blown crystal baby bottle).

[n.36]. For an excellent discussion of photographic manipulation, digital technology and copyright issues, see generally Gastineau, *supra* note 30.

[n.37]. *Memoirs of an Invisible Man*, Warner Bros., 1992.

[n.38]. Julie Lew, *Invisibility Is More Than Meets the Eye*, *N.Y. Times*, Feb. 23, 1992 at 26 (explanation of technique by Stuart Robertson, the manager of a digital effect department at Industrial, Light & Magic.)

[n.39]. Cringely, *supra* note 2, states:

[James Cameron, director of *Terminator 2* explained,] "the bulk of what's happening is less expensive 2D image processing. We can touch up the crow's- feet around an actress' eyes, change the color of the sky, make all sorts of changes to a scene in postproduction" [C]omputer effects were used to make right-handed actor John Goodman appear to pitch like Ruth, a lefty . . . and were also employed to modify the architecture of the minor league ballparks used in the film, adding upper decks where there were none and filling the stand with 20,000 moving, cheering, hotdog-eating digital extras cloned from a sample of 1,000 people in period costumes; Wolkomir, *supra* note 31.

[n.40]. See *infra* part IV.

[n.41]. Wolkomir, *supra* note 31, states:

On a computer program, the animators had created an analog of the movie set, with its lights. As the image of the pseudopod developed, the computer set up the correct highlights and shadows. Meanwhile, with a scanning machine, the animators digitized scenes already filmed and fed them into the computer to blend with the computer-generated pseudopod (techniques used by Industrial Light & Magic to create characters in *Terminator 2 Judgement Day* and *The Abyss*, etc...).

[n.42]. Dennis McDougal, *Not Quite the Real Thing; Old Movie Clips Used in Commercial Leave a Bad Taste in Filmmakers' Mouths*, *L.A. Times*, Dec. 16, 1991, at F1; Lucas and Spielberg Speak Out for Artists' Rights, *supra* note 1.

[n.43]. Cringely, *supra* note 2.

[n.44]. Office of Technology Assessment, U.S. Department of Commerce, *Intellectual Property Rights in an Age of Electronics and Information* 31 (1986) at 114 [hereinafter *OTA Report*] ("The marriage of optical disk storage and video processing equipment suggests the possibility of establishing 'image banks' consisting of images and standard algorithms to manipulate, transform, and link together video images frames, or even parts of frames, into new visual works derived from older, perhaps righted, works." (Footnotes omitted.)).

[n.45]. *Id.*

[n.46]. Arthur R. Miller, *Copyright Protection for Computer Programs, Databases, and Computer-Generated Works: Is Anything New Since CONTU?*, 106 *Harv. L. Rev.* 977, 1043-49 (1993).

[n.47]. *Id.*

[n.48]. *OTA Report*, *supra* note 44, at 102.

[n.49]. See *infra* notes 50-59 and accompanying text.

[n.50]. Images are often transferred from person to person on floppy disks, making individual computer usage and copying very private and very difficult for the public to track. See Robin Raskin, *Instant Images*, *PC Magazine*, Oct. 17, 1989, at 149.

[n.51]. OTA Report, *supra* note 44, at 69 (footnotes omitted).

[n.52]. Raskin, *supra* note 50.

[n.53]. Daniel Grant, *Computer Copycats Blur Rights*, *Christian Science Monitor*, Oct. 3, 1991, at 12; *Illicit Bulletin Boards*, *Network Monitor*, Oct., 1991.

[n.54]. *Illicit Bulletin Boards*, *supra* note 53; Grant *supra* note 53. Even worse, some services have keystroke commands to allow users to bypass the copyright warning screens automatically. See Peter Brueggeman, *Arctic & Antarctic Information*, *CD-ROM Librarian*, Dec. 1990, at 39.

[n.55]. Aileen Abernathy, *The CD Stock Market; Stock Photos on CD-ROM Desktop Publishing Buyers Guide*, *Mac User*, Apr. 1993, at 183; Raskin, 50; Luisa Simone, *Clip Art; Software Review Overview of 18 Evaluations of Clip-Art Libraries Includes Related Article on Editor's Choices*, *PC Magazine*, May 14, 1991, at 203.

[n.56]. Abernathy, *supra* note 55.

[n.57]. Raskin, *supra* note 50.

[n.58]. *Id.* See also Patricia Pane, *CSC Countersues SPC Over Clip-Art; CSC Claims Copyright Infringement by Harvard Graphics Program*, *InfoWorld*, June 18, 1990, at 8.

[n.59]. Simone, *supra* note 55.

[n.60]. *Infra* part IV.B.1 - IV.B.3.

[n.61]. 17 U.S.C. § 102 (1993).

[n.62]. *Id.* at Historical Notes.

[n.63]. *Feist Publication v. Rural Telephone*, 499 U.S. 340, 372 (1991) (referring to *Harper & Row v. Nation Enterprises*, 471 U.S. 539, 556- 57 (1985)).

[n.64]. *Id.* at 377.

[n.65]. *Jewelry Corp. v. Kapakian*, 446 F.2d 738, 741, 170 U.S.P.Q. 557, 559 (9th Cir. 1971) (holding that the idea of a jeweled bee pin merged with its expression); *Sid & Marty Krofft Television Productions v. McDonald's*, 562 F.2d 1157, 1167-69, 196 U.S.P.Q. 97, 104-06 (9th Cir. 1977) ("the scope of copyright protection increases with the extent expression differs from the idea," but the court held that in the case of a television show and an allegedly copied advertisement, the idea and expression did not merge.) See generally Paul Goldstein, *Copyright Principles, Law and Practice* § 2.3.2 (Little, Brown and Company 1989).

[n.66]. *Feist*, 499 U.S. at 380 (holding that arrangement of factual information in yellow and white pages was not original and, thus, not copyrightable).

[n.67]. *Id.*; see cases cited *supra* note 65.

[n.68]. See *supra* notes 62 and 63 and accompanying text.

[n.69]. 17 U.S.C. § 102 (1993).

[n.70]. *Id.* at Historical Notes.

[n.71]. 17 U.S.C. § 101 and 103, Historical and Statutory Notes (1993).

[n.72]. *Id.* However, if someone makes enough changes to a work, then the copyright owner of the old work may be unable to show that the new work is substantially similar enough to the old work to prove copying at all. *Kisch v. Ammirati & Puris*, 657 F. Supp. 380, 383, 4 U.S.P.Q.2d 1886, 1887 (S.D.N.Y. 1987) (citing *Warner Bros. v. American Broadcasting Cos.*, 720 F.2d 231, 241, 222 U.S.P.Q. 101, 109 (2d Cir. 1983)).

[n.73]. 17 U.S.C. § 106 (1993).

[n.74]. *Novelty Textile Mills v. Joan Fabrics*, 558 F.2d 1090, 1092, 195 U.S.P.Q. 1, 2 (2d Cir. 1977). Evidence of access and substantial similarity may be rebutted by evidence of independent creation *id.* at 1092, n.2.

[n.75]. *Arnstein v. Porter*, 154 F.2d 464, 468, 68 U.S.P.Q. 288, 292 (2d Cir. 1946); *Arrow Novelty v. Enco National*, 393 F. Supp. 157, 187 U.S.P.Q. 413 (S.D.N.Y. 1974), *aff'd*, 515 F.2d 504 (2d Cir. 1975).

[n.76]. *New Line Cinema Corp. v. Easter Unlimited, Inc.*, 7 U.S.P.Q.2d 1631, 1633. (E.D.N.Y. 1989).

[n.77]. For the sake of continuing our analysis of copyright infringement, we will assume that the trier of fact infers access from public exposure and considers the rest of Big Picture's claim.

[n.78]. *Scott v. WKJG*, 376 F.2d 467, 469, 153 U.S.P.Q. 493, 495 (7th Cir. 1967) ("Without direct proof of access or proof of a reasonable possibility of access, the courts have quite generally held that access and copying may be implied only if the similarities of the two [items at issue] are so striking and of such nature as to preclude the possibility of coincidence, accident or independent creation") (citing *Twentieth Century-Fox Film v. Dieckhaus*, 153 F.2d 893, 898-99, 68 U.S.P.Q. 355, 359-61 (8th Cir. 1946), *cert. denied* 329 U.S. 716 (1946), *cert. denied*, 389 U.S. 832 (1967); *Heim v. Universal Pictures*, 154 F.2d 480, 487, 68 U.S.P.Q. 303, 310 (2d Cir. 1946).

[n.79]. Counsel for Big Picture might also try to show infringement through proving "intermediate copying." This concept is beyond the scope of this Article, but regards the digitizing of an image as intermediate copying and regards the new, altered, digital image as the final copy. In many cases, the final copy may not be enough like the original image to show substantial similarity and prove infringement. Instead some attorneys have argued that the intermediate copy, instead of the final copy, should be compared to the original and used to prove infringement in the final copy. See Bill Coats, *The Two Live Crew "Pretty Woman" Case and the Copyright Ramifications on Digital Sampling in a Multimedia Setting*, *Hastings Comm. & Ent. L.J.*, *Comm./Ent. Sixth Annual Computer Law Symposium: Evolution in Intellectual Property*, Feb. 12, 1994.

[n.80]. *Harper & Row*, 471 U.S. at 565.

[n.81]. *Id.* at 542-45.

[n.82]. *Id.* at 565.

[n.83]. *Id.* at 565.

[n.84]. *Boyd Jarvis v. A&M Records*, 827 F. Supp. 282, 290, 27 U.S.P.Q.2d 1812, 1816 (D.N.J. 1993).

[n.85]. See generally Jeffrey H. Brown, "They Don't Make Music the Way They Used To": The Legal Implications of "Sampling" in Contemporary Music, 1992 Wis. L. Rev. 1941, 1944 (1992) ("Sampling' is the incorporation of previously recorded works into new musical compositions. . . . Sampling has also become popular among video artists.").

[n.86]. *Jarvis*, 827 F. Supp. at 289, 27 U.S.P.Q.2d at 1819.

[n.87]. *Id.* at 289.

[n.88]. *Id.* at 290. The "ordinary person" standard is described more fully in Arnstein, 154 F.2d at 473, 68 U.S.P.Q. at 296. Some authors describe this standard as whether an ordinary person would confuse the plaintiff's and defendant's works, see Goldstein, *supra* note 65, at 31-34.

[n.89]. *Jarvis*, 827 F. Supp. at 290-91, 27 U.S.P.Q.2d at 1816-17.

[n.90]. *Id.* at 292 (based on its findings, the court denied defendant's motion for summary judgment).

[n.91]. *Howard Alt v. Joe Morello*, 227 U.S.P.Q. 49, 53 (S.D.N.Y. 1985).

[n.92]. *Edwards v. Ruffner*, 623 F. Supp. 511, 512, 229 U.S.P.Q. 157, 158 (S.D.N.Y. 1985).

[n.93]. *Roy Export v. Columbia Broadcasting System*, 503 F. Supp. 1137, 1145, 208 U.S.P.Q. 580, 586 (S.D.N.Y. 1980), *aff'd*, 672 F.2d 1095, 215 U.S.P.Q. 289 (2d Cir. 1982), *cert. denied*, 459 U.S. 826 (1982). The Court stated:

One minute and forty-five seconds [2%] was used from "City Lights," which has a one hour and twenty minute running time; three minutes and forty-five seconds [6.25%] of the one hour film "The Kid" was used; CBS used one minute and twenty-five seconds [2%] of "The Circus," with a total running time of one hour and twelve minutes; fifty-five seconds [1%] from the one hour and twenty-nine minute film "Modern Times"; and one minute and fifteen seconds [2%] was used out of a possible one hour and twelve minutes from "The Gold Rush" (percentages calculated and added).

[n.94]. *Triange Publications v. Knight-Ridder Newspapers*, 626 F.2d 1171, 1177, 207 U.S.P.Q. 977, 983 (5th Cir. 1980).

[n.95]. *New Line Cinema*, 17 U.S.P.Q.2d at 1638.

[n.96]. *Wavelength Film v. Columbia Pictures Industries*, 631 F. Supp. 305, 306-7, 229 U.S.P.Q. 714, 714-15 (N.D. Ill. 1986).

[n.97]. See *Sid & Marty Krofft*, 562 F.2d at 1164, 196 U.S.P.Q. at 102 (describing an intrinsic/extrinsic comparison of television programming); *Novelty Textile Mills*, 558 F.2d at 1093-94, 195 U.S.P.Q. at 3-4 (comparing the similarity of fabric designs); *Scott*, 376 F.2d at 468-69, 153 U.S.P.Q. at 494-95 (comparing text and plot of plays); *Arrow Novelty*, 393 F. Supp. at 159, 187 U.S.P.Q. at 414 (comparing trays).

[n.98]. See cases cited *supra* notes 81-94.

[n.99]. Some commentators have noted that the substantial similarity test involves confusion of the ordinary person also, i.e. the audience test. See Goldstein, *supra* note 65, at § 7.3.2.

[n.100]. 17 U.S.C. § 107 Historical Notes (1993).

[n.101]. 17 U.S.C. § 107.

[n.102]. *Harper & Row*, 471 U.S. at 562.

[n.103]. Sony Corp. of America, 464 U.S. at 451.

[n.104]. Acuff-Rose v. Luther R. Campbell, 972 F.2d 1429, 1436, 23 U.S.P.Q.2d 1817, 1822 (6th Cir., 1992)

[n.105]. Harper, 471 U.S. at 564.

[n.106]. Id. at 565, 566.

[n.107]. Id. at 566.

[n.108]. Id. at 568 (citing Sony Corp. of America, 464 U.S. at 451).

[n.109]. Id. at 568.

[n.110]. Id. at 562.

[n.111]. Marvin Worth Productions v. Superior Films Corp., 319 F. Supp. 1269, 1273, 168 U.S.P.Q. 693, 696 (S.D.N.Y. 1970).

[n.112]. Triangle Publications, 626 F.2d at 1178, 207 U.S.P.Q. at 983 (finding fair use of the cover of "TV Guide" in an advertisement for a competing television scheduling guide); Update Art Inc. v. Maariv Isreal Newspaper Inc., 635 F. Supp. 228, 232 (S.D.N.Y. 1986) (not finding fair use of a poster printed in a newspaper); Haberman v. Hustler Magazine Inc., 626 F. Supp. 201, 214, 229 U.S.P.Q. 15, 22 (D. Mass. 1986) (finding fair use of printing plaintiff's postcards for comment in magazine), aff'd, 843 F.2d 67 (2d Cir. 1988); Time Inc. v. Bernard Geis Associates, 293 F. Supp. 130, 145, 159 U.S.P.Q. 663, 674 (S.D.N.Y. 1968) (finding fair use of scenes from film of the Kennedy assassination in a book in competition with plaintiff's magazine article on same topic).

[n.113]. See supra part IV.B.2.b.

[n.114]. Luther R. Campbell v. Acuff-Rose Music, Inc., 510 U.S. --, 114 S. Ct. 1164 (1994).

[n.115]. Id. at 1168.

[n.116]. Id. at 1179.

[n.117]. Id. at 1171.

[n.118]. Howard J. Schwartz and Cynthia D. Richardson, 2 Live Crew Case Sets 'Fair Use' Back on Track, N.J.L.J. at 12, July 25, 1994.

[n.119]. Campbell, 114 S. Ct. at 1171. For more analyses of transformative use, see generally *Twin Peaks Productions v. Publication Intl., Ltd.*, 996 F.2d 1366, 27 U.S.P.Q.2d 1001 (2d Cir. 1993); *American Geophysical Union v. Texaco, Inc.*, 802 F. Supp. 1, 24 U.S.P.Q.2d 1796 (S.D.N.Y. 1992); *Basic Books, Inc., v. Kinko's Graphics, Corp.*, 758 F. Supp. 1522, 18 U.S.P.Q.2d 1437 (S.D.N.Y. 1991); Pierre N. Leval, *Commentary: Toward A Fair Use Standard*, 103 Harv. L. Rev. 1105 (1990).

[n.120]. See Henry R. Kaufman and Michael K. Cantwell, *The Parody Case: 2 Vasims*, National L.J., May 16, 1994 at C1 (stressing the free speech implications of *Acuff-Rose*); Charles S. Sims and Peter J.W. Sherwin, *The Parody Case: 2 Version*, National L.J., May 16, 1994 at C1 (stressing that parodies are not presumptively fair use under *Acuff-Rose*); Joseph Mauro, *Pretty Woman Packs a Punch*, N.Y. Law Journal, April 29, 1994 at 5 (analyzing parody baseball cards); Felix H. Kent, *The Use of Parodies in Commercials - Part II*, N.Y. L.J., April 15, 1994 at 3; Charles J. Sanders, *Photojournalism, Fair Use and the First Amendment*, N.Y.L.J., January 21, 1994 at 5.

[n.121]. Richard R. Wiebe, *Fair Use Comes of Age*, Legal Times, May 2, 1994 at 13.

[n.122]. Id.

[n.123]. 17 U.S.C. § 504 (1993).

[n.124]. Mills, *supra* note 14, at 335.

[n.125]. For a description of real life versions of this hypothetical in the analogous digital sampling situations, see Brown, *supra* note 85, at 1954-55.

[n.126]. Wagner, *supra* note 24, at 721; cf. Mills, *supra* note 14, at 331 (suggesting that Congress should solve problems related to new technologies, but consistently fails to do so because of the conflicts created by special interest lobbying groups).

[n.127]. OTA Report, *supra* note 44, at 288.

[n.128]. OTA Report, *supra* note 44, at 264 states:

A compulsory license permits the use of copyrighted material under certain circumstances without the permission of the copyright owner, provided a government-set payment is made to the copyright owner. Such licenses are: retransmissions by cable systems of distant broadcast signals by television and radio stations; the use of musical records in jukeboxes for profit; the use of music and certain other creations by noncommercial broadcasters; and the use of music on phonorecords" (footnote omitted); Mills, *supra* note 14, at 330-34.

[n.129]. Mills, *supra* note 14, at 335-36.

[n.130]. OTA Report *supra* note 44, at 208.

[n.131]. Cringely, *supra* note 2, states:

Five Years from [1992], if all goes according to Sony's plan, theaters will get their prints of Terminator 4: Day of Reckoning via satellite or fiber- optic link, and will show them on supervideo projectors built by Sony. In one move the company will take a whack at film piracy through digital copy protection schemes, eliminate one of the most expensive parts of the business (making too many prints of movies that turn out to be duds) and force every movie house in the world to buy new Sony-manufactured equipment.

Some have suggested that technology merely delays the inevitable by creating devices which control technological uses, uncontrol the controls, and then control the uncontrolling of the controls, in an endless technological circle.

Mills, *supra* note 14, at 312 n.22.

[n.132]. See also Ronald Laurie, Implication of the "Information Superhighway" on Computer Intellectual Property Rights, *Hastings Comm. & Ent. L.J.*, *Comm./Ent. Sixth Annual Computer Law Symposium: Evolution in Intellectual Property*, Feb. 12, 1994.

(suggesting use of a hardware card to license copyrighted material, "take the technology your confronted with and use it to your advantage").

[n.133]. OTA Report, *supra* note 44, at 69, 77.

[n.134]. In fact, after this author thought of this solution, she learned that such a system is in the research and development stage. Telephone Interview with Eric Schwartz, Policy Planning Adviser to the United States Register of Copyrights (Feb. 14, 1994).

[n.135]. OTA Report, *supra* note 44, at 70.

[n.136]. Telephone Interview with Eric Schwartz, Policy Planning Adviser to the United States Register of Copyrights (Feb. 14, 1994).